

# Natural Soda LLC 2022 Project Status Report & Annual Plan of Development January 2023

Please note CONFIDENTIAL data sections of this document

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## **Table of Contents**

1.0	Introduction and Project Summary1					
2.0	Description of Project Area	. 1				
2.1	Location and Regional Setting	. 1				
2.2	Leasehold Status	. 6				
3.0	Project Status	6				
3.1	2022 Project Activities (Confidential)	. 6				
3.1.1	Items of Significance (Confidential)	. 6				
3.1.2	Mining Interval Bicarbonate Production (Confidential)	. 8				
3.1.3	2022 Monthly Bicarbonate Summary (Confidential)	. 8				
3.1.4	Regulatory Review (Confidential)	9				
3.2	Proposed 2023 Activities and Schedule (Confidential)	14				
3.2.1	Processing (Confidential)	14				
3.2.2	Well field (Confidential)	14				
3.2.3	EPA Notification – Schedule of Planned Mechanical Integrity Test (MI (Confidential)					
3.2.4	EPA Notification – Schedule of Planned SSM Survey (Confidential)	15				
3.2.5	EPA Notification – Schedule of Planned SSMW Logging (GR/CCL) (Confidential)	15				
4.0	2022 Project Activities	16				
4.1	On-Site Facilities and Process Description	16				
4.1.1	General Arrangement	16				
4.1.2	Lab Operation / Sanitation / ISO	16				
4.1.3	Process, Utilities, Facilities	16				
4.1.4	Wells Associated with the NS Project (Confidential)	18				
4.1.5	Other Activities	19				
4.2	New Findings or Developments (Confidential)	22				
4.3	2022 Operation Results (Confidential)	23				
4.4	Geotechnical Program (TDR and Geophysical Logging)	25				
4.4.1	Subsurface Subsidence Geophysical Logging	26				
4.4.2	Surface Subsidence Monitoring	26				
4.5	Water Well Pumpage	27				
5.0	Environmental Monitoring and Protection	28				
5.1	Hydrology Monitoring	28				
5.1.1	Introduction	28				
5.1.2	Stream Gauging Stations	28				
5.1.3	Monitoring Wells	31				
5.1.4	Storage and Evaporation Ponds	31				

Natural Soda LLC

5.1.5	Potentiometric Surface Maps (Confidential)	31
6.0	Land Disturbance and Reclamation	32
6.1	Summary of 2022 Disturbance	32
6.2	Regulatory Compliance	33
6.2.1	Regulatory Activity	
6.3	Reclamation Activity	33
6.3.1	Regrading & Scarification	33
6.3.2	Seeding & Weed Control	33
6.3.3	Reclamation Fencing	33
6.3.4	Precipitation	33
6.3.5	Vegetation Monitoring Results	34
6.4	Deer Roadkill Study	35
6.5	Raptor Survey	35
6.6	Other Observations	35
6.7	Waste Disposal	35
Appendix /	A Groundwater Analytical Results	36
Appendix I	B Potentiometric Surface Maps (Confidential)	74
Appendix	C 2022 Vegetation Monitoring Reclamation Status Report	77

### List of Figures

Figure 1: Natural Soda LLC Vicinity Map	2
Figure 2: NS Sodium Leases Map	3
Figure 3: NS Plant and Well Location Map, Section 26 Detail	4
Figure 4: NS Plant and Well Location Map, Expanded View	5
Figure 5: General Flow Process	17
Figure 6: Pregnant Assays and Production (Confidential)	24
Figure 7: NS 2022 Production (Confidential)	24
Figure 8: 4A-5M TDR Cable A, Sept 2007 vs. May 2022	25
Figure 9: 4A-5M TDR Cable B, Sept 2007 vs. April 2022	26



# List of Tables (Not including tables in Vegetation Monitoring Report)

Table 1 Mining Interval Annual and Lifetime Production (Confidential)	8
Table 2: Monthly Production, Sales, and Inventory Summary in Tons (Confidential)	8
Table 3: List and Status of Wells Associated with NS	. 20
Table 4: Mine and Process Data (Confidential)	. 23
Table 5: 2022 Installed Surface Subsidence Monument (SSM) Elevation	. 27
Table 6: Historical Comparison with 2022 Water Year Data	. 30
Table 7: Yellow and Piceance Creek Discharge Data up to 2022 Water Year	. 30
Table 8: Disturbed Acreage	
Table 9: Annual Precipitation in inches (10 Year)	. 34
Table 10: 89-3 Annual Perched Aquifer	
Table 11: IRI-1 Annual Perched Aquifer	
Table 12: IRI-5 Annual Perched Aquifer	
Table 13: PA-1 Annual Perched Aquifer	. 40
Table 14: 89-2 Quarterly A-Groove Aquifer	. 41
Table 15: 90-1 Annual A-Groove Aquifer (P&A'd 2022)	
Table 16: 90-4 Quarterly A-Groove Aquifer	
Table 17: AG-1 Quarterly A-Groove Aquifer	. 44
Table 18: AG-2 Annual A-Groove Aquifer	
Table 19: IRI-4 Annual A-Groove Aquifer	. 46
Table 20: O-GMW-A Annual A-Groove Aquifer	. 47
Table 21: WSW-2 Quarterly A-Groove Aquifer	. 48
Table 22: WSW-3 Quarterly A-Groove Aquifer	. 50
Table 23: WSW-4 Quarterly A-Groove Aquifer	. 51
Table 24: 89-1 Quarterly B-Groove Aquifer	. 52
Table 25: 90-3 Quarterly B-Groove Aquifer	. 53
Table 26: BG-1 Monthly B-Groove Aquifer (P&A'd 2022)	. 54
Table 27: BG-4 Monthly B-Groove Aquifer	. 55
Table 28: BG-6 Monthly B-Groove Aquifer	. 56
Table 29: BG-7 Annual B-Groove Aquifer	. 58
Table 30: BG-10 Quarterly B-Groove Aquifer	. 59
Table 31: BG-11 Quarterly B-Groove Aquifer	. 60
Table 32: IRI-6 Annual B-Groove Aquifer	. 61
Table 33: DS-2 Annual Dissolution Surface Aquifer (P&A'd 2022)	. 62
Table 34: DS-3 Annual Dissolution Surface Aquifer	. 63
Table 35: DS-6 Annual Dissolution Surface Aquifer	. 64
Table 36: DS-7 Annual Dissolution Surface Aquifer	. 65
Table 37: DS-8 Annual Dissolution Surface Aquifer	. 66

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Table 38: DS-9 Annual Dissolution Surface Aquifer	68
Table 39: DS-10 Annual Dissolution Surface Aquifer	70
Table 40: IRI-7 Annual Dissolution Surface Aquifer	71
Table 41: Summary of 2022 Annual Remote Water Levels	73

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## **1.0 Introduction and Project Summary**

This 2022 Project Status Report and Annual Plan of Development is submitted to fulfill the requirements of BLM sodium leases, COC-00118326, COC-00118327, COC-0119986, and COC-37474 as stated in Federal Regulations 43 CFR, Subpart 3591 and 3592 and the Project Record of Decision dated January 20, 1987. This report is also submitted to the Colorado Division of Reclamation Mining and Safety (DRMS) to meet the requirements for an Annual Report per State permit number M-1983-194, and in part to meet the requirements contained in the EPA UIC Class III Area Permits: CO30358-00000 and CO32169-00000.

This report summarizes the Natural Soda LLC (NS) 2022 process operations, production activities, reclamation status, geotechnical and environmental monitoring results, as well as the status of surface facilities and wells. Proposed operations for 2023 will be described in this report, including permitting two new production wells, 18H-1V and 18H-IR-W. In 2023, Plugging and Abandonment (P&A) operations will be undertaken on three production wells 14H-R(I), 15H-I, and 17H-I. NS will also P&A the Rock School Leases seven Groundwater Monitor Wells (GMWs) in 2023. GMWs and water supply wells (WSWs) will be maintained in 2023.

# 2.0 Description of Project Area

### 2.1 Location and Regional Setting

The four NS federal sodium leases are located in the Piceance Creek Basin in Rio Blanco County in northwestern Colorado (Figure 1 and Figure 2). The sodium leases are located primarily between the Yellow Creek and Piceance Creek drainages, approximately 41 miles from Meeker, Colorado and 53 miles from Rifle, Colorado. The climate is semi-arid with annual precipitation averaging 12-14 inches. Precipitation generally occurs as snow from November to March and as rain during the remainder of the year. The vegetation is predominantly pinyon pine, sagebrush, Utah juniper, western wheatgrass, and needle-and-thread grass. The total area contained within the four sodium leases is 8,379 acres more or less. The principal area of current of operations are located in and around Section 26, T1S, R98W, 6<sup>th</sup> Principal Meridian. Figure 1 shows the NS leases and regional setting. Figure 2 shows sodium leases within the Piceance Creek Basin. Figure 3 and Figure 4 show the NS well locations and proposed well locations.





Figure 1: Natural Soda LLC Vicinity Map







Figure 2: NS Sodium Leases Map



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Figure 3: NS Plant and Well Location Map, Section 26 Detail.



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Figure 4: NS Plant and Well Location Map, Expanded View.



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### 2.2 Leasehold Status

The original four sodium leases were renewed by the BLM in 2021 for a period of ten years. Annual rental and royalty payments have been submitted to the Mineral Management Service. The NS leases comprise approximately 8,379 acres. NS plans to renew the leases again in 2031 for an additional period of ten years.

# 3.0 Project Status

### 3.1 2022 Project Activities (Confidential) (See Figure 3 & Figure 4: Plant and Well Location Maps)

In 2022 NS produced 253,476 tons of sodium bicarbonate. This product was produced from the 12H, 13H, 14H, 15H, 16H, and 17H mining intervals. Routine boil outs were performed in 2022. NS undertook a capital project (August 8<sup>th</sup> through 24<sup>th</sup>) to replace the original #4 crystallizer in Train #1 with a new stainless steel crystallizer. NS plans to continue to work on replacing other tanks with stainless steel over the next few years. NS also permitted with Rio Blanco County (RBC) for the installation of a new cyclone separator in Train #2. Various short shutdowns were required for routine maintenance, equipment repair and/or replacement throughout the year.

### 3.1.1 Items of Significance (Confidential)

- NS drilled and completed two new production wells to extend the 17H mining interval during the summer of 2022. The 17H-1V slant production well was drilled to intersect the existing 17H-I & R mining interval. The 17H-IR-E production well was drilled to the east of the existing 17H-I & R production wells intersecting the 17H mining interval near the end of the 17H-I production liner. The new wells started production operations in 2022.
- NS completed a successful pullback operation on the 12H-IR (Inj/Rec) production well on May 11, 2022. A Cast Iron Bridge Plug (CIBP) was set inside the 7.0-inch production liner at a depth of 2,642.0 feet MD GL. The 7.0-inch liner was subsequently perforated from 2,567 to 2,599 feet MD GL. This pullback operation moved the injection/recovery point back approximately 809.7 linear feet from the end of the 7.0-inch liner (at 3,376.7 feet MD GL) to 2,567.0 feet MD GL, increasing the production interval between the 12H-I and the 12H-IR by approximately 29%.
- NS drilled a new subsurface subsidence monitor well, 17H-E SSMW, on a new pad location during the fall of 2022 per EPA request. The 17H-E SSMW is sited above the east portion of the 17H mining interval and will be used to monitor potential subsurface subsidence near the current 17H-IR-E to 17H-1V and future 18H-IR-E to 18H-1V mining intervals (yet to be drilled).

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- Plug & Abandonment (P&A) operations occurred during 2022 to reduce redundancy and remove older wells from the NS ground water monitoring program and included the 90-1, BG-1, and the DS-2 wells.
- The 14H mining interval was retired from operations in August 2022. The 14H-1V was converted to a SSMW by placing a CIBP at a depth of 1945 feet MD GL.
- The 4A-5M TDR and 3M-TDR subsurface subsidence monitoring wells were P&A'd during the 2nd and 4th quarters of 2022, respectively, after meeting the EPA SSMW monitoring requirements for their respective mining intervals.
- The DVPW-1 experimental production well and the 16H-R(I) production well were P&A'd in 2022.

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### 3.1.2 Mining Interval Bicarbonate Production (Confidential)

Table 1 Mining Interval Annual and Lifetime Production (Con	fidential)
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Tons Mined in 2022	Mining Interval 12H	Mining Interval 13H	Mining Interval 14H	Mining Interval 15H	Mining Interval 16H	Mining Interval 17H	Mining Interval DVPW-1
	41,930	15,838	35,766	63,207	71,389	25,347	0
Total Tons Mined as of Dec 31, 2022	320,470	245,294	355,462	340,480	265,437	153,373	1,349

### 3.1.3 2022 Monthly Bicarbonate Summary (Confidential)

Table 2: Monthly Production, Sales, and Inventory Summary in Tons (Confidential)

Month	Beginning Inventory	Production	Sales	Ending Inventory
January	5,910	22,108	22,460	5,557
February	5,557	19,704	19,159	6,101
March	6,101	21,204	21,515	5,823
April	5,823	21,593	21,431	5,984
Мау	5,984	21,197	21,970	5,212
June	5,212	21,052	23,002	3,282
July	3,282	23,347	22,149	4,480
August	4,480	17,023	19,030	2,473
September	2,473	21,336	21,543	2,363
October	2,363	20,608	20,090	2,881
November	2,881	21,741	21,998	2,625
December	2,625	22,564	19,724	5,574
TOTALS		253,476	254,072	

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### 3.1.4 Regulatory Review (Confidential)

NS submitted routine Sundry Notices, monthly, quarterly, and annual reports to the appropriate agencies. The following summarizes other regulatory related activities:

#### Bureau of Land Management (BLM)

- NS submitted an updated Sampling and Analysis Plan (SAP) to the BLM January 13, 2022 that included changes generated from the DRMS 2021 TR-47. These updates added groundwater sampling and monitoring components for NS's newly constructed PA-1, AG-2, and BG-10 upgradient groundwater monitoring wells (GMWs) and changes from the current monitoring program.
- NS submitted an updated Environmental Monitoring Plan (EMP) to the BLM January 21, 2022. Revisions to the EMP include updates to reclamation monitoring protocols, the removal of the 3M-TDR subsurface subsidence monitoring well, and general figure and text updates.
- On January 10, 2022 NS filed for the replacement surety bond #SUR0070608 for \$354,000. BLM accepted this replacement surety bond and released the original bond #2325001 for the same amount.
- NS filed a Notice of Intent (NOI) on March 8<sup>th</sup> for the plugging and abandonment of the 16H-R(I) production well, 90-1 GMW, BG-1 GMW, and the DS-2 GMW to be completed during the summer of 2022.
- NS filed a NOI on March 18<sup>th</sup> for the P&A of the DVPW-1 production well, the EPA was cc'd on this NOI, and the P&A operations were completed in summer of 2022.
- On March 22<sup>nd</sup> a pinhole leak was discovered on the east barren line near the 15H-IR-E well pad. A temporary patch was applied at the time and the leaking fitting was replaced on March 28<sup>th</sup>. NS reported the undesirable event to the BLM as required.
- BLM renewed the NS Right-of-way grant #COC-40613 on May 24, 2022.
- NS submitted a NOI to the BLM on August 15, 2022 for the drilling and completion of the 17H-E SSMW well required by the EPA. Required documents were submitted, the DRMS and EPA were cc'd on this submittal.
- APD documents for the 17H-E SSMW were sent to the BLM on August 25, 2022.
- Required 17H-IR-E and 17H-1V production well drilling and completion documents were submitted to the BLM on September 14, 2022.
- NS submitted P&A completion documentation for 90-1 GMW, BG-1 GMW, and DS-2 GMW on October 6<sup>th</sup>. The DRMS and EPA were cc'd on this P&A reporting.

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- During October 2022, NS sent a Well Sundry Notice to the BLM for the proposed P&A operation of the retired 3M-TDR SSMW. The well was no longer needed as the mining intervals it monitored for subsurface subsidence had been retired for more than 3 years per EPA requirements. The DRMS and EPA were cc'd on this P&A submittal.
- BLM APD documents for the permitting of the proposed 18H-1V and 18H-IR-W production wells were submitted on November 21<sup>st</sup>, 2022.
- NS submitted BLM survey documentation for the addition of proposed pipelines to service the proposed 18H-IR-W and 18H-1V production wells on December 21<sup>st</sup>.

### United States Environmental Protection Agency (EPA)

- NS notified the EPA on March 18<sup>th</sup> of the proposed P&A of the 16H-R(I) (EPA# CO30358-11924) production well during the summer of 2022.
- In April of 2022 the EPA approved the replacement of surety Bond #2325000 by NS, the replacement surety bond #SUR0070607 was submitted to the EPA in March 2022.
- NS sent the EPA an application to add the 17H-R (to be renamed 17H-R(I)) to the EPA UIC Area Permit CO30358-0000 as an Injection well on May 23<sup>rd</sup>. The 17H-R was originally drilled and completed in 2018. Required documentation was sent to the EPA for review. On May 19, 2022 NS conducted EPA mandated MIT Part 1 pressure testing which demonstrated good internal mechanical integrity of the 17H-R(I) production well. The MIT Part 1 testing completed the requirements for the EPA Authorization to Inject (ATI). The EPA approved the NS well name change and authorization to inject on June 16, 2022. The 17H-R(I) was assigned UIC #CO30358-12475. The BLM was cc'd on 17H-R(I) EPA submittals.
- EPA inspectors Nathan Wiser and Gary Wang performed and onsite inspection of NS operations on July 14<sup>th</sup>, the primary objective was to inspect the 14 EPA permitted Injection wells owned and operated by NS. No problems or violations were reported by the EPA.
- Following the completion of drilling operations for the 17H-IR-E well, NS submitted a request to the EPA for injection approval on July 28<sup>th</sup>. The BLM was cc'd on this correspondence.
- NS notified the EPA on August 18<sup>th</sup>, 2022 of the completed installation of the required Surface Subsidence Monument (SSM) over the newly drilled 17H-IR-E horizontal wellbore named 17HA SSM. In addition, NS also installed two new SSM's CP14 and CP15 located south and northwest respectively of the 17H mining interval. The BLM was cc'd on this correspondence.
- September 28<sup>th</sup>, NS provided notice to the EPA that the 3M-TDR and 4A-5M TDR SSMWs were to be decommissioned and abandoned because the associated mining intervals had been previously retired and were beyond the required 3 years of monitoring. The wells have been P&A'd and their respective locations are undergoing reclamation. The BLM was cc'd on this submittal.

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- NS completed the P&A of the 16H-R(I) (EPA #CO30358-11924) and DVPW-1 (EPA #CO32169-08754) and submitted all required EPA documents on October 6, 2022.
- NS collected subsurface subsidence logs in the 14H-1V well on September 23, 2022. The 14H mining interval was retired on August 11, 2022. The 14H-1V well replaces the BG-9 (DS-5) SSMW which was plugged and abandoned. No indication of subsurface subsidence was identified in the 14H-1V CCL/GR log comparison. Required documentation was sent to the EPA on October 18<sup>th</sup> with the BLM cc'd.
- NS submitted an application to add the proposed 18H-IR-W production well to NS EPA UIC Area Permit #CO30358-0000 on November 7<sup>th</sup>. The BLM was cc'd on this submittal.
- NS conducted final SSMW logging in the experimental DVPW-1 production well on September 18, 2022. The DVPW-1 mining interval has been retired after a very limited solution mining production of 1,341 tons and was P&A'd on September 30, 2022. Baseline DVPW-1 SSMW CCL/GR logging occurred on Monday, December 5, 2011. Final SSMW CCL/GR logs were compared to the baseline SSMW logs; the comparison indicated no subsurface subsidence. NS submitted required documentation to the EPA on December 9, 2022, and cc'd the BLM on this submittal.
- NS conducted routine, EPA mandated, MIT Part 1 pressure testing and/or Part 2 temperature logging in the following injection wells on the indicated dates, no anomalies were detected during any testing or logging and NS submitted required documentation to the EPA. The BLM was cc'd on the EPA MIT reporting.
  - o 12H-I MIT P1 (10-Year) February 10, 2022
  - o 16H-I MIT P1 (5-Year) May 13, 2022
  - o 16H-I MIT P2 (5-Year) May 5 9, 2022
  - o 17H-R(I) MIT P1 (Initial) May 19, 2022
  - o 17H-R(I) MIT P2 (Initial) September 19, 2022
  - o 17H-IR-E MIT P1 (Initial) July 14, 2022

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### Colorado Division of Reclamation, Mining and Safety (DRMS)

- NS submitted required annual fees and reports for DRMS Permits M 1983-194 and M-1999-051 in January 2022.
- During January 2022, NS updated legal documents relating to the DRMS Financial Warranty and Performance Warranty for bonding both the NS and Rock School Leases.
- On January 25, 2022 DRMS approved a Technical Revision (TR-48) to drill the 17H-1V SSMW well on the existing 16-17H-1V location. This well was not drilled, and there are no plans to do so in the future.
- DRMS conducted an onsite inspection on March 17, 2022. DRMS observed wells (pad areas) that were scheduled to be drilled or abandoned summer 2022. No problems or violations were noted during this inspection.
- June 17, 2022, DRMS conducted an onsite inspection and observed the 17H-1V and 17H-IR-E production well and man camp locations, DRMS also reviewed NS's upcoming GMW and production well P&A program and plans for the August installation of a stainless steel crystallizer tank. No problems or violations were noted during this inspection.
- DRMS conducted an onsite inspection on September 20, 2022 to observe the TR-49 17H-E SSMW revised pad location and the status of reclaimed pads and associated roads that were undergoing final reclamation. DRMS noted that the MMC-IRI-2, R, P, Q, E, D, and 94-1M locations were successfully revegetated and demonstrated weed control. DRMS recommended a release request should be submitted under a separate TR request for this acreage recognition. No problems or violations were noted during the inspection.
- On September 22, 2022 DRMS approved TR-49 which allowed the 17H-E SSMW to be drilled and completed on a new pad.
- October 2022 the DRMS increased bonding for NS operations from \$3.9 million to \$4.4 million. NS submitted documents to comply with the DRMS bond increase.
- On November 3<sup>rd</sup> NS submitted a Memorandum of Understanding (MoU) to DRMS regarding updates to disturbed acreage and P&A wells. The MoU outlined that DRMS had inspected and recognizes that 5.483 acres from the reclamation of pads and roads for MMC-IRI-2, R, P, Q, E, D, and 94-1M location had been successfully reclaimed per DRMS requirements. NS will no longer be required to actively maintain these areas, and the acreage can be deducted from the total disturbance of the NS lease. NS also notified DRMS of the completion of P&A activities for the 90-1, BG-1, DS-2, DVPW-1(A&B), 16H-R(I) and the 3M-TDR and requested DRMS recalculate the CIRCES.

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On December 9<sup>th</sup> DRMS conducted the 4<sup>th</sup> quarter onsite inspection of the NS operation. This site visit was to observe the well locations, the P&A operations conducted over the summer/fall 2022, and look at reclamation required in the spring of 2023 for these locations. DRMS also visited the locations for the proposed future 18H-IR-W & 18H-1V production wells. No problems or violations were noted during this inspection.

#### Colorado Division of Water Resources (DWR)

- A senior water right holder placed a call on the White River effective December 1, 2022. NS initiated its augmentation plan (88CW420) on December 19<sup>th</sup> and began releasing water from the WSW-3 and WSW-4 to meet obligations for White River surface runoff requirements. NS will continue to release 0.74 acre ft (242,000 gallons) per month until the water rights call is released.
- NS notified DWR of the P&A completion for the 90-1 A-Groove Monitoring well on October 24, 2022. The 90-1 was the only GMW P&A'd in 2022 permitted with DWR.

#### Colorado Department of Public Health & Environment (CDPHE)

- NS has been an active part of the Industry Group during the CDPHE rulemaking process for GEMM Phase 2 during 2022. This is a Green House Gas emissions reduction based rule making group.
- On July 1, 2022, NS received a letter from the CDPHE informing NS that the annual storm water report had not been submitted for 2021. NS submitted the report within a week of receiving the notice.
- In 2022, NS complied with reporting requirements for CDPHE storm water and environmental emissions.

#### **Rio Blanco County (RBC)**

- RBC did not require amendments to the existing Special Use Permit (SUP) 12-04 for the 2022 P&A operations.
- A RBC building permit for the Train 2 Cyclone Installation Project was acquired by NS in September 2022.
- NS submitted required documentation to RBC in April of 2022 to amend the NS SUP #12-04 to include the drilling of the 17H-IR-E and 17H-1V production wells. RBC approved the amendment the same month as submitted.
- A Temporary Living Quarters (TLQ) permit was applied for by NS on June 2, 2022 for the man camp needed to house personnel required to drill the 17H-IR-E and 17H-1V production wells. Following an onsite inspection by RBC, the TLQ was approved on June 10<sup>th</sup>, 2022.
- NS submitted a Special Use/Building Permit (SUBP) to the RBC for drilling of the 17H-E SSMW October 20, 2022.

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### 3.2 **Proposed 2023 Activities and Schedule (Confidential)**

### 3.2.1 Processing (Confidential)

NS anticipates sodium bicarbonate production of approximately 250,000 tons in 2023. Additionally, brief shut-downs for periodic boil-outs and routine maintenance activities will occur.

### 3.2.2 Well field (Confidential)

- NS will continue the permitting process for two new production wells during 2023. Specifically, the 18H-1V slant production well is proposed to be drilled as the first well of the 18H mining interval and the proposed 18H-IR-W production well will be drilled west of 18H-1V, with the goal of intersecting the 18H-1V well, forming the western portion of the new 18H mining interval.
- NS permitting of new pipelines to the new proposed 18H-1V and 18H-IR-W wells will continue in 2023.
- NS plans to P&A the production wells 14H-R(I), 15H-I and 17H-I during the spring/summer of 2023. The last injection into these wells was August 11<sup>th</sup>, July 12<sup>th</sup> and June 30<sup>th</sup> of 2022, respectively.
- The Rock School (RS) lease consists of 1,320.1 acres, permitted with the DRMS under permit # M-1999-051. In 2023 NS plans to P&A the 7 wells within the RS lease and interim reclaim the associated well pads. The RS lease wells are as follows; MWD-1 (1,731 ft. MD), MWU-2 (2,687 ft. MD), MWD-2 (1,703 ft. MD), MWA-2 (1,200 ft. MD), MWB-2 (1,398 ft. MD), AmerAlia RS-96-20-1 (1,717 ft. MD) and the AM-2 (88 ft. MD).



#### 3.2.3 EPA Notification – Schedule of Planned Mechanical Integrity Test (MIT) (Confidential)

- Per EPA UIC Permit C030358-00000 requirements, the following routine injection well (initial, 5-year, or 10-year) MIT Part 1 pressure testing and MIT Part 2 temperature logging is planned for 2023 or the first quarter of 2024.
  - 12H-IR (5-year): MIT P1 and P2 testing/logging is planned to occur in 2023.
  - 12H-I (10-Year): MIT P1 is planned to occur during the third or fourth quarter of 2023.
  - 13H-RI (5-year): MIT P1 and P2 testing/logging is planned to occur during the first and second quarters of 2024.
  - If the 18H-IR-W is drilled and completed MIT P1 will be conducted, as appropriate, during well construction in 2023.
  - If the 18H-IR-W is drilled and completed: MIT P2 baseline temp log will be run, as appropriate, during well construction, MIT P2 initial logs are required 60-90 days post EPA ATI.

# 3.2.4 EPA Notification – Schedule of Planned SSM Survey (Confidential)

• NS will collect biennial surface subsidence monument surveys in 2023, in accordance with UIC Permit C030358-00000 requirements.

# 3.2.5 EPA Notification – Schedule of Planned SSMW Logging (GR/CCL) (Confidential)

• Per EPA UIC Permit C030358-00000 requirements; routine subsurface subsidence monitor well (SSMW) logging (GR/CCL) is planned for 2023 or the first quarter of 2024:

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# 4.0 2022 Project Activities

### 4.1 On-Site Facilities and Process Description

### 4.1.1 General Arrangement

Figure 5 provides an overview of the NS process flow.

### 4.1.2 Lab Operation / Sanitation / ISO

In 2022, activities continued in the NS laboratory to provide analysis for process control, quality assurance, and regulatory requirements.

- Plant operators performed process control analyses.
- Chloride levels were monitored by both operations and laboratory personnel on USP grades to ensure USP standards were met.
- The USP test for insoluble materials was conducted on a per lot basis by laboratory personnel and a filter test for insoluble materials was conducted on the dry product once per shift by NS operators.
- Pests were controlled with the use of two UV bug lights and rodent traps around the interior and exterior walls of the plant. Bait stations replaced external traps at the Rifle warehouse.
- GMP/ISO/Sanitation training was provided for employees as required.
- A food safety audit for FSSC 22000 was conducted for which NS maintained GFSI certification.
- CDPHE, NSF, OMRI, Kosher, Halal, Non-GMO, CleanGredients and ISO 9001 certifications were properly maintained.

### 4.1.3 Process, Utilities, Facilities

NS undertook a capital project (August 8<sup>th</sup> through 24<sup>th</sup>) to replace the original #4 crystallizer in Train #1 with a new stainless steel crystallizer. NS plans to continue to work on replacing other tanks with stainless steel over the next few years. NS also permitted for the installation of a new cyclone separator in Train #2.





Figure 5: General Flow Process



### 4.1.4 Wells Associated with the NS Project (Confidential)

The following well-field related activities occurred in 2022: Refer Figure 3 & Figure 4 Plant and Well Location Map.

- On April 27<sup>th</sup> and April 28<sup>th</sup> Daub geologists removed the nitrogen lift pumps from the 90-1, DS-3, DS-6 and DS-7. The DS wells will be sampled annually via wireline truck to remain in compliance with NS's groundwater sampling program. The 90-1 was P&A'd in 2022.
- On April 26<sup>th</sup> Red Rock Well Service (RRWS) pulled the 12H-IR pump from the well. On April 30<sup>th</sup> RRWS lost 3 joints of tubing downhole, between the approximate depths of 2,942-3,040 feet MD GL. Fishing recovery attempts were unsuccessful and operations were put on hold. Following unsuccessful fishing attempts in the 12H-IR in April, a pullback operation was planned and completed on May 11th. A cast iron bridge plug with Viton seals was set at a depth of 2,642 feet MD GL. The 7.0-inch OD production casing was then perforated with 180 perforations (6 spf, 60-degree phasing, 0.58" diameter perforations). Following the pullback operations, production well 12H-IR has operated with no issues.
- The conductor holes for the 17H-1V and 17H-IR-E production wells were drilled, cased, and cemented on June 1<sup>st</sup> and June 2<sup>nd</sup> respectively.
- A Capstar drilling rig was mobilized to the 17H-1V location on June 18<sup>th</sup> and drilling operations began on the 17H-1V slant production well on June 20<sup>th</sup> at 18:00 hours. Intermediate casing was installed and cemented on June 26<sup>th</sup>. Drilling concluded in the 17H-1V slant recovery well on July 2<sup>nd</sup> and the liner and hanger were installed on July 13<sup>th</sup>. The new 17H-1V slant recovery well was brought online on August 17<sup>th</sup>.
- On July 2<sup>nd</sup> the Capstar drilling rig was mobilized to the 17H-IR-E location. The intermediate hole was spudded on July 4<sup>th</sup> and the well was completed on July 18<sup>th</sup>. Injection began in the 17H-IR-E production well on October 26<sup>th</sup>.
- The 14H mining interval was retired August 11, 2022. SSMW CCL/GR logging was performed in the 14H-1V production well on September 23, 2022 and a final log will be run in 2025. The 14H-1V well had a bridge plug installed in the liner to transition the well from production to SSMW.
- P&A operations on the 90-1 (A-Groove Aquifer Monitor Well) were conducted between August 10<sup>th</sup> to August 16<sup>th</sup>. The casing was cut off below ground level and a final P&A marker was installed in October 2022.
- P&A operations occurred on the DS-2 (DS Aquifer Monitor Well) August 16<sup>th</sup> through the 23<sup>rd</sup>. The casing was cut below ground level and a final P&A marker was installed in October 2022.
- P&A operations occurred on the BG-1 (B-Groove Aquifer Monitor Well) from August 31<sup>st</sup> to September 1<sup>st</sup>. The casing was cut below ground level and a final P&A marker was installed in October 2022.

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- P&A operations occurred on the 16H-R(I) between September 12<sup>th</sup> through the 20<sup>th</sup>. The casing was cut below ground level and a final P&A marker was installed in October 2022.
- P&A operations occurred on the DVPW from September 16<sup>th</sup> through the 22<sup>nd</sup>. The casing was cut off below ground level and a final P&A marker was installed in October 2022.
- On November 28<sup>th</sup>, Himes Drilling moved onto the newly constructed 17H-E SSMW location. The new subsurface subsidence monitor well was spudded on November 29<sup>th</sup> and completed on December 8<sup>th</sup>. The well serves as a subsurface subsidence monitoring well for the existing eastern 17H mining interval and the future 18H mining interval.
- P&A operations occurred between December 8<sup>th</sup> and the 21<sup>st</sup> on the retired 3M-TDR well. The casing was cut off below ground level and a final P&A marker will be installed in the first quarter of 2023.

The current status of wells associated with the NS Project is indicated in Table 3: List and Status of Wells Associated with NS.

### 4.1.5 Other Activities

Continuous water level monitoring of proximal DS aquifer monitor wells, using fluid level indicators (pressure transducers), provided real time data for the management of active production mining interval operations. Throughout the year, injection and recovery rates were adjusted to maintain water levels of these monitoring wells near target zones.

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# Table 3: List and Status of Wells Associated with NS (CONFIDENTIAL)

			1		I		•	I	-	I
Well Name	Initial Well Type	Current Well Status	Section	Town- ship	Range	Latitude (NAD 27)	Longitude (NAD 27)	Initial TD, (MD, ft)	Current TD, (MD, ft)	Comments
3M-TDR	Subsidence Monitoring	P&A'd 2022	26	1S	98W	39.928794934	108.362551397	1820	1820	No Longer Monitoring P&A'd Dec 2022
4A-5M	Hydrology/Subsidence Monitoring	P&A'd 2022	26	1S	98W	39.929813477	108.365383461	1830	0	No Longer Monitoring P&A'd Sept 2022
12H-I	Horizontal-Injection	Horizontal- Production	25	1S	98W	39.929304000	108.348621000	4189.0	4189	TVD TD=~1985'
12H-R	Horizontal-Recovery	Horizontal- Recovery	25	1S	98W	39.929598000	108.348538000	2623.0	2623	TVD TD=~2007'
12H-IR	Horizontal-Production (Inj/Rec)	Horizontal- Production	26	1S	98W	39.929667896	108.363801054	3464.7	3464.7	TVD TD=-1972'
13H-R(I)	Horizontal-Production (Inj/Rec)	Horizontal- Production	25	1S	98W	39.929583170	108.348684400	2549	2549	TVD TD=~2013'
13H-IR	Horizontal-Production (Inj/Rec)	Horizontal- Production	26	1S	98W	39.930014690	108.363712457	3423.7	3423.7	TVD TD=-1964'
14H-R(I)	Horizontal Production (Inj/Rec)	Horizontal- Production	25	1S	98W	39.930265288	108.349763798	2819	2819	TVD TD=~1983'
14H-1V	Slant Production (Rec)	Subsurface Subsidence Monitoring)	26	1S	98W	39.931733549	108.35641781	2095.5	2095.5	
15H-I	Horizontal Injection	Horizontal- Injection	27	1S	98W	39.927281590	108.370834800	5477	5477	TVD TD=~1877'
15H-R(I)	Horizontal Production (Inj/Rec)	Horizontal- Production	34	1S	98W	39.927050806	108.370714984	2698	2698	TVD TD=~1850'
15H-1V	Slant Production (Rec)	Slant Production (Rec)	26	1S	98W	39.92797980	108.36112812	2079.1	2079.1	TVD TD=~1922'
15H-IR-E	Horizontal Production (Inj/Rec)	Horizontal Production	25	1S	98W	39.92778393	108.34898748	4032.4	4032.4	TVD TD=~1960'
15H-SSMW	Subsurface Subsidence Monitoring	Subsurface Subsidence Monitoring	26	1S	98W	39.927297800	108.367304200	1760.5	1760.5	
16H-I	Horizontal Injection	Horizontal- Injection	34	1S	98W	39.926332533	108.371061443	5425	5425	TVD TD=~1910'
16H-R(I)	Horizontal Production (Inj/Rec)	P&A'd 2022	34	1S	98W	39.926848404	108.371348247	2451	2451	P&A'd Sept 2022
16H-1V	Slant Production (Rec)	Slant Production (Rec)	35	1S	98W	39.925742470	108.363769248	2086	2086	TVD TD= ~1945'
16H-IR-E	Horizontal Production (Inj/Rec)	Horizontal Production	25	1S	98W	39.927419470	108.349138051	4025	4011	TVD TD= ~1959'
17H-1V	Slant Production (Rec)	Slant Production (Rec)	35	1S	98W	2376.7	2376.7	2376.7	2376.7	TVD TD= ~1961'
17H-I	Horizontal-Injection	Horizontal- Injection	34	1S	98W	39.925807900	108.370279100	5378.9	5378.9	TVD TD=-1911'
17H-IR-E	Horizontal-Production (Inj/Rec)	Horizontal- Production (Inj/Rec)	36	1S	98W	39.9270577	108.349382	3994.7	3994.7	TVD TD=-1965'
17H-R(I)	Horizontal-Recovery	Horizontal- Recovery	34	1S	98W	39.926171184	108.370365216	2431.7	2431.7	TVD TD=-1872'
17H-E SSMW	Subsurface Subsidence Monitoring	Subsurface Subsidence Monitoring	35	1S	98W	39.92601271	108.3531506	1828	1828	
17H-SSMW	Subsurface Subsidence Monitoring	Subsurface Subsidence Monitoring	35	1S	98W	39.925620961	108.367424479	1731.0	1720.6	
89-1	Hydrology Monitoring	Hydrology Monitoring Well	26	1S	98W	39.934818008	108.359830288	1989	1570	
89-2	Hydrology Monitoring	Hydrology Monitoring Well	26	1S	98W	39.934771572	108.359655360	1409	1389	
89-3	Hydrology Monitoring	Hydrology Monitoring Well	26	1S	98W	39.934959857	108.359876003	400	390	Periodic sampling issues
90-1	Water Supply	P&A'd 2022	26	1S	98W	39.930942569	108.362786046	1451	1451	Converted to A-Grv MW August 2015
WSW-2 (2010- 26-198-2C)	Core Hole	Water Supply	26	1S	98W	39.932913043	108.357000636	1964	1402	Cored July 2010
WSW-3	Water Supply	Water Supply	26	1S	98W	39.940837450	108.361799400	1440	1440	Drilled August 2014
WSW-4	Water Supply	Water Supply	26	1S	98W	39.940358200	108.348198508	1437	1437	Drilled August 2014
90-3	Hydrology Monitoring	Hydrology Monitoring Well	26	1S	98W	39.927659529	108.363196386	1577	1556	
90-4	Hydrology Monitoring	Hydrology Monitoring Well	26	1S	98W	39.927654857	108.363040763	1392	1371	Cleaned out to TD August 2021
AG-1	Core Hole 2014-25-198-J	Hydrology Monitoring Well	25	1S	98W	39.929116963	108.348465043	2061	1487	Cemented up to groundwater monitoring well level
AG-2	Hydrology Monitoring	Hydrology Monitoring Well	27	1S	98W	39.927814	108.375312	1275	1275	Drilled & Completed August 2021
AM-2	Hydrology Monitoring	Inactive	20	1S	98W	N/A	N/A	90	90	Rock School Well
BG-1	Hydrology Monitoring	P&A'd 2022	35	1S	98W	39.92620970	108.36612260	1911	1552	P&A'd Sept 2022
							I			I





# Table 3: List and Status of Wells Associated with NS (continued) (CONFIDENTIAL)

Well Name	Initial Well Type	Current Well Status	Section	Town- ship	Range	Latitude (NAD 27)	Longitude (NAD 27)	Initial TD, (MD, ft)	Current TD, (MD, ft)	Comments
BG-6 (2010- 26-198-6C)	Core Hole	Hydrology Subsidence Monitoring Well	26	1S	98W	39.931301816	108.354997679	1978	1577	
BG-7	Core Hole 2014-25-198-K	Hydrology Monitoring Well	25	1S	98W	39.928987896	108.432905289	1967	1593.1	Cemented up to groundwater monitoring well leve
BG-10	Hydrology Monitoring	Hydrology Monitoring Well	27	1S	98W	39.927930	108.375072	1461	1461	Drilled & Completed August 2021
BG-11	Hydrology Monitoring	Hydrology Monitoring Well	25	1S	98W	39.929399	108.348929	1685.5	1685.5	Drilled & Completed February 2021
DS-2 (97 DS2)	Hydrology Monitoring	P&A'd 2022	35	1S	98W	39.926217942	108.366158755	1854	1829	P&A'd Sept 2022
DS-3	Hydrology Monitoring	Hydrology Monitoring Well	26	1S	98W	39.929529067	108.360329121	2100	1874.5	Sample pump replaced with NLP i 2018
DVPW-1	Vertical Production	P&A'd 2022	26	1S	98W	39.929100000	108.357500000	2904.6	2904.6	P&A'd Sept 2022
DS-6	Core Hole	Hydrology Monitoring Well	35	1S	98W	39.926942000	108.362195000	2962.6	1870	Cemented up to groundwater monitoring well leve
DS-7	Core Hole	Hydrology Subsidence Monitoring Well	26	1S	98W	39.932036903	108.362826421	1980	1875	Cemented up to groundwater monitoring well leve
DS-8	Core Hole 2014-26-198-I	Hydrology Monitoring Well	26	1S	98W	39.932738295	108.355594975	2000	1881.7	Cemented up to groundwater monitoring well leve
DS-9	Core Hole 2014-25-198-M	Hydrology Monitoring Well	25	1S	98W	39.927447860	108.340064803	1916.5	1842	Cemented up to groundwater monitoring well leve
DS-10	Hydrology Subsidence Monitoring Well	Hydrology Subsidence Monitoring Well	35	1S	98W	39.92659671	108.35590409	1995	1925	
MMC-IRI-1	Core Hole	Hydrology Monitoring Well	26	1S	98W	39.927580161	108.363115621	2981	397	Cemented up to groundwater monitoring well leve
MMC-IRI-4	Core Hole	Hydrology Monitoring Well	23	1S	98W	39.942950000	108.355333333	3001	1411	Cemented up to groundwater monitoring well leve
MMC-IRI-5	Hydrology Monitoring	Hydrology Monitoring Well	23	1S	98W	39.943578031	108.355623039	2983	378	
MMC-IRI-6	Hydrology Monitoring	Hydrology Monitoring Well	23	1S	98W	39.943733333	108.355316667	1878	1394	
MMC-IRI-7	Hydrology Monitoring	Hydrology Monitoring Well	23	1S	98W	39.943516667	108.356033333	1880	1395	
MMC-IRI-11	Core Hole	Hydrology Monitoring Well	25	1S	98W	39.931608050	108.336010982	2963	1550	Cemented up to groundwater monitoring well leve
MWA-2	Hydrology Monitoring	Hydrology Monitoring Well	20	1S	98W	39.952825612	108.412403600	1200	1200	Rock School Wel
MWB-2	Hydrology Monitoring	Hydrology Monitoring Well	20	1S	98W	39.953067253	108.412206500	1398	1398	Rock School Well
MWD-1	Hydrology Monitoring	Hydrology Monitoring Well	20	1S	98W	39.953094778	108.411828300	1731	1731	Rock School Well
MWD-2	Hydrology Monitoring	Hydrology Monitoring Well	20	1S	98W	39.952635000	108.412036900	1703	1703	Rock School Well
MWU-2	Hydrology Monitoring	Hydrology Monitoring Well	20	1S	98W	39.933370000	108.350210000	687	687	Rock School Well
O-GMW-A	Core Hole 2014-27-198-O	Hydrology Monitoring Well (Inactive)	27	1S	98W	39.934483259	108.383446479	1786	1294	Cemented up to groundwater monitoring well leve
PA-1	Hydrology Monitoring	Hydrology Monitoring Well	27	1S	98W	39.927639	108.375175	435	435	Drilled & Complete August 2021
TH75-6A	Hydrology Monitoring	Hydrology Monitoring Well	14	1S	98W	39.964492958	108.353578053	1260	1260	USGS Well
TH75-6B	Hydrology Monitoring	Hydrology Monitoring Well	14	1S	98W	39.964807700	108.353045189	1755	1755	USGS Well
TH75-11A	Hydrology Monitoring	Hydrology Monitoring Well	20	1S	98W	39.952321958	108.409207410	1080	1080	USGS Well
TH75-11B	Hydrology Monitoring	Hydrology Monitoring Well	20	1S	98W	39.953286260	108.409494700	1498	1498	USGS Well
RS-96-20-1	Hydrology Monitoring	Inactive	20	1S	98W	39.95037676	108.41282630	2598	1717	OH Packer at 1295 Rock School Wel





### 4.2 New Findings or Developments (Confidential)

- NS implemented modifications to the groundwater sampling plan in 2022. This modified plan was competed and approved in coordination with DRMS (TR #47), BLM, and EPA.
- In 2023 NS will begin sampling DS Aquifer GMWs that do not have nitrogen lift pumps by utilizing a wireline deployed discrete zone sampling tool.

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# 4.3 2022 Operation Results (Confidential)

Mining and production activities were continuous in 2022. The following Table 4 provides a summary of mining and process results:

2022	Decervery	Decement	<b>A</b> = = = 1/2	A	Tana	Tana	Tarra	Tarra	Tarra	Tana	Tama	Manthly
<u>2022</u>	<u>Recovery</u>	<u>Recovery</u>	<u>Assay</u>	<u>Assay</u>	<u>Tons</u>	<u>Monthly</u>						
<u>Month</u>	Avg GPM	Temp.	Bicarb g/l	NaCl g/l	Mining Interval #12H	Mining Interval #13H	Mining Interval #14H	Mining Interval #15H	Mining Interval #16H	Mining Interval #17H	Mining Interval DVPW-1	Total Tons
Jan-2022	1,896	189	208	15	0	3,738	5,297	5,915	7,158	0	0	22,108
Feb-2022	1,934	182	204	14	66	3,277	4,645	5,176	6,539	0	0	19,704
Mar-2022	1,956	183	201	14	2,872	3,451	4,764	5,361	4,756	0	0	21,204
Apr-2022	2,010	184	201	15	2,591	3,722	4,732	5,043	5,504	0	0	21,593
May-2022	1,882	184	203	13	3,288	1,570	4,402	5,507	6,430	0	0	21,197
Jun-2022	1,960	190	200	13	5,281	80	4,471	4,949	6,271	0	0	21,052
Jul-2022	1,967	190	205	15	5,152	0	5,534	5,683	6,978	0	0	23,347
Aug-2022	1,407	188	209	14	3,951	0	1,921	4,574	4,586	1,992	0	17,023
Sep-2022	2,004	185	199	14	4,679	0	0	5,683	5,735	5,238	0	21,336
Oct-2022	1,881	186	200	14	4,435	0	0	5,401	5,088	5,684	0	20,608
Nov-2022	1,944	186	204	15	4,583	0	0	5,137	5,938	6,082	0	21,741
Dec-2022	1,950	184	203	16	5,032	0	0	4,778	6,404	6,350	0	22,564
AVERAGE	1,899	186	203	14	3,494	1,320	2,980	5,267	5,949	2,112	0	21,123
TOTAL					41,930	15,838	35,766	63,207	71,389	25,347	0	253,476
		Re	covery - Mon	thly average	house flow ra	te and pregna	nt liquor temp	erature during	g process oper	rations.		
		As	say - g/L sod	lium bicarbor	nate (as total b	icarbonate) ar	nd sodium chl	oride in the pr	egnant liquor.			
Key to above	a haadinas:		(To	otal bicarbona	ate = bicarbon	ate g/L + 1.58	x carbonate g	/L)				
	i neadingo.	То	ns - Total mo	onthly bicarbo	onate producti	on from each	mining interva	al.				
		Те	mp Tempei	rature in degr	ees F recover	ed at the preg	nant liquor tar	nk.				
		Av	g GPM - Mon	thly average	injection flow	rate during pr	ocess operati	ons.				

 Table 4: Mine and Process Data (Confidential)





2022 Project Status Report & Annual Plan of Development CONFIDENTIAL

Figure 6 illustrates 2022 pregnant liquor analytical results along with monthly averages of sodium bicarbonate production (tons/day). Figure 7 represents monthly and cumulative annual production for 2022. NS produced and processed their sodium bicarbonate product throughout 2022.



Figure 6: Pregnant Assays and Production (Confidential)





### 4.4 Geotechnical Program (TDR and Geophysical Logging)

Historically NS monitored two long-term, time-domain-reflectometry (TDR) subsurfacesubsidence monitor wells, the 4A-5M and 3M-TDR. The TDR monitoring results were reported to the BLM (monthly) and EPA (quarterly). There has been no indication of surface or subsurface subsidence near the 4A-5M or 3M-TDR wells since installation. After having met the EPA requirement for three years of subsidence monitoring following cessation of mining, the monitoring of the 3M-TDR cables was halted in 2021.

In April/May of 2022 the 4A-5M TDR monitoring satisfied the temporal monitoring requirements of 3 years post cessation of the 8H interval mining, the well was fully abandoned in September 2022.

4A-5M Cable A (Figure 8), and Cable B (Figure 9) show the original September 2007 TDR measurement versus April and May 2022.



Figure 8: 4A-5M TDR Cable A, Sept 2007 vs. May 2022

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Figure 9: 4A-5M TDR Cable B, Sept 2007 vs. April 2022

### 4.4.1 Subsurface Subsidence Geophysical Logging

NS conducted the EPA mandated subsurface subsidence logging in the 14H-1V production well at the retirement of the 14H mining interval. The original 14H mining interval SSMW was the BG-9 (DS-5, 2010-26-198-1C). The BG-9 was P&A'd in 2021.

### 4.4.2 Surface Subsidence Monitoring

A surface subsidence monument (SSM) survey of SSMs above NS's area of operations will be conducted in the second quarter of 2023. Three new SSMs were installed on August 12, 2022 on NS lease. The 17HA SSM was installed above the existing 17H-IR-E wellbore and two supplemental SSMs (CP14 SSM, and CP15 SSM) were installed south and northwest, respectively, of the 17 mining interval. The initial monument elevation survey of the new SSMs is shown in Table 5 below.



Surface Subsidence Monument (SSM)	Initial Monument Elevation (ft. AMSL)	2022 Installed SSMs (Date Installed)
CP 14 SSM	6758.42	Installed 08/12/2022
CP 15 SSM	6624.65	Installed 08/12/2022
17HA SSM	6738.67	Installed 08/12/2022

 Table 5: 2022 Installed Surface Subsidence Monument (SSM) Elevation

### 4.5 Water Supply Well Pumpage

In 2022, approximately 82.09 million gallons of water were pumped from water supply wells WSW-2, WSW-3, and WSW-4 with an average of 155.9 gpm. The 2022 total pumpage decreased 1.39 million gallons from the 2021 pumpage total of 83.48 million gallons. The 2022 total pumpage from WSW-2 was 602,100 gallons, WSW-3 was 39.79 million gallons, and the total pumpage from WSW-4 was 41.70 million gallons.



# 5.0 Environmental Monitoring and Protection

### 5.1 Hydrology Monitoring

### 5.1.1 Introduction

NS's hydrology monitoring program concentrates on groundwater, as there are no perennial streams or springs located on the NS's sodium leases. The USGS stream gauging station-monitoring program is conducted, with NS support, to provide regional surface stream flow data on Yellow Creek and Piceance Creek.

The hydrology-monitoring plan is designed to identify impacts of NS's solution mining operations on underground sources of drinking water, as designated by the US EPA.

Refer to Figure 3 and Figure 4 for the locations of existing monitor wells. Groundwater analytical results are presented in Appendix A.

### 5.1.2 Stream Gauging Stations

NS contracts with the USGS to monitor surface waters for water quality and quantity. Monitoring was performed upstream and downstream relative to the NS mining operations and with respect to Yellow Creek and Piceance Creek at four existing stations with extensive historical data. Historical stream gauging data is reported in this document and discharge data is complete through the 2022 water year (WY) (October 2021 – September 2022).

The USGS surface water data are available to the public from the USGS web site at http://co.water.usgs.gov. Table 6 and Table 7 summarize key 2022 WY data for surface water near the NS site. Data reported in Table 6 and Table 7 are compiled from the USGS web site. The Specific Conductance and Temperature data included in the tables were generated by using USGS lab test results for each stream reported on the USGS web site during the 2022 WY.

A review of USGS stream water quality data indicated no significant change in stream water quality during 2022. The NS precipitation data showed a slight increase at the NS location in 2022 compared to 2021 (10.35" vs 10.09" respectively). 2022 precipitation was approximately half that of 2019 (20.8").

The 2022 WY discharge (cfs) data in this area indicated an increase in average stream discharge levels for the 6242 Corral Gulch, 6255 Yellow Creek, 6200 and 6222 Piceance Creek streams. 2022 discharge was still below the Period of Record (PR) historic levels. Increased precipitation and/or changes to irrigation diversions may be affecting stream flow discharge levels.

The USGS notes in the 2021 and 2022 year end water reports that the 6200 (Piceance Creek below Ryan Gulch) has diversions for irrigation upstream of the monitor station. The 6222 (Piceance Creek at White River) has diversions for irrigation of approximately 5,500 acres upstream from the monitor station. The 6255 (Yellow Creek near White River) has diversions to irrigate approximately 300 acres upstream from the monitor station. The 6242 (Corral Gulch near Rangely) which historically has been a low flow stream is not reported as having any diversions upstream from the monitor.

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The 2022 Specific Conductance data from USGS for three stations were within the range values for the period of record. The 6255 (Yellow Creek) set a new max high of 5,330 Specific Conductance for PR in 2022. The 6200 (Piceance Creek below Ryan Gulch) was the only stream location that had a decrease in Specific Conductance in 2022, the other three streams had slight increases in Max Specific Conductance from 2021 to 2022 WY.

The 2022 water temperature values were within the range of historic data. Post review of the USGS data, no effect on stream water quality was noted due to the NS mining operations.

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2022 Project Status Report & Annual Plan of Development

<u>Station</u>	Discharge P of R*	Discharge 2022 WY**	Average Total Discharge P of R	Total Discharge 2022		Specific co	Temp (°c.)						
						(µS/cm							
					P of R	2022 WY	P of R	2022 WY	P of R	2022 WY			
	<u>cfs</u>	<u>cfs</u>	ac ft/yr	<u>ac ft/yr</u>	Max	Max	<u>Min</u>	Min	<u>Max</u>	<u>Max</u>			
<u>6200</u>	24.80 (57 yrs)	7.07	17,922	5,119	2,800	1,760	600	1,470	26.3	22.8			
<u>6222</u>	30.30 (56 yrs)	8.16	21,915	5,908	7,240	4,650	516	2,120	30.0	25.0			
<u>6242</u>	1.50 (47 yrs)	0.82	1,056	594	1,760	1,470	312	1,440	24.0	18.4			
<u>6255</u>	2.30 (44 yrs)	2.00	1,670	1,448	5,330	5,330	460	4,270	31.0	23.5			
6200 Piceance Creek below Ryan Gulch						6242 Corral Gulch near Rangely							
6222 Piceance Creek at White River						6255 Yellow Creek near White River							
* P of R = Period of Record for collection of data.						**WY = Water Year (October-September).							
cfs = cubic feet per second, average annual flow.						N/D = No data available at time of publication							

#### Table 6: Historical Comparison with 2022 Water Year Data

#### Table 7: Yellow and Piceance Creek Discharge Data up to 2022 Water Year

Project Data Comparison Discharge for Water Years in cfs														
												Station	<u>2009</u>	<u>2010</u>
<u>6200</u>	16.3	13.4	36.2	17.5	11.3	10.7	15.9	17.0	11.7	7.5	9.6	10.9	5.9	7.1
<u>6222</u>	20.8	17.6	41.7	19.2	11.8	13.0	19.7	21.2	15.5	8.9	11.6	12.4	7.4	8.2
<u>6242</u>	0.4	0.3	1.1	0.3	0.2	0.5	0.5	1.9	0.6	0.1	1.0	0.4	0.2	0.8
<u>6255</u>	1.0	0.9	1.3	1.2	1.1	1.2	1.3	1.3	1.7	0.8	1.6	0.9	0.5	2.0
Maximum Specific Conductance (µS/cm @ 25° C)														
Station	<u>2009</u>	<u>2010</u>	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>2017</u>	<u>2018</u>	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>
<u>6200</u>	1,620	2,020	1,460	1,610	1,930	2,040	1,770	1,840	2,120	1,700	1,740	1,590	2,100	1,760
<u>6222</u>	3,130	4,800	2,290	5,350	5,100	3,190	2,790	2,020	3,550	5,350	3,300	4,160	4,610	4,650
<u>6242</u>	1,320	1,460	1,280	1,480	1,430	1,400	1,330	1,170	1,280	1,490	1,480	1,260	1,440	1,470
<u>6255</u>	4,050	4,260	4,130	4,170	4,720	4,530	4,070	4,520	3,600	3,980	4,530	4,560	4,560	5,330
* P of R = Period of Record for collection of data. **WY = Water					Year (October-September). cfs = cubic feet per second, average annual flow.									
6200 Piceance Creek below Ryan Gulch						6242 Corral Gulch near Rangely								
6222 Piceance Creek at White River						6255 Yellow Creek near White River								
N/D No data	V/D No data available at time of publication.													

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### 5.1.3 Monitoring Wells

Per regulatory requirements, dedicated groundwater monitoring wells have been constructed to monitor four water-bearing intervals identified as the Perched, A-Groove, B-Groove, and the Dissolution Surface (DS) Aquifers. The DS Aquifer has been exempted as an underground source of drinking water in the NS lease and permit areas. The DS Aquifer monitored by NS contains total dissolved solids (TDS) values in excess of 10,000 parts per million (PPM). These four aquifers are monitored at several locations across the solution mining area: up and down-gradient, remote down-gradient, and toward the east near the southeast portion of Section 26. Baseline and current groundwater monitoring data have been obtained from 1991 through present. Refer to Figure 3 and Figure 4 for well locations.

The Perched Aquifer is characteristically lower in TDS, conductivity, fluoride, SAR (sodium absorption ratio) and moderate to higher in sulfate and pH. The A-Groove and B-Groove Aquifers are similar in water quality with moderate TDS, conductivity, SAR, but higher fluoride. However, the B-Groove Aquifer generally has slightly higher levels of TDS, conductivity, SAR, and fluoride. The DS Aquifer is characterized by very high TDS and conductivity (30,000 to >100,000 ppm), higher SAR, magnesium, potassium, moderate pH, and a generally higher fluoride.

In 2022, the results of groundwater monitoring were analyzed for potential anomalies in order to prevent or mitigate potential negative impacts to the USDW's.

Appendix A contains detailed sampling results for groundwater monitoring wells.

### 5.1.4 Storage and Evaporation Ponds

The NS storage and evaporation ponds have a secondary liner and are constructed to collect and direct any condensation or leakage to tubes for removal. Pond information is reported on a monthly basis.

During 2022 NS reported that high TDS fluids are present between the evaporation (7 acre) pond liner and is causing pump equipment issues (salting off). NS has been frequently unable to reliably pump from between the evaporation pond liner and as such will not report evaporation pond pumpage going forward.

### 5.1.5 Potentiometric Surface Maps (Confidential)

Using groundwater potentiometric elevations from NS groundwater monitoring wells and other NS wells, A-Groove and B-Groove Aquifer potentiometric surface maps have been plotted and have been included with this report in Appendix B (Confidential).

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## 6.0 Land Disturbance and Reclamation

## 6.1 Summary of 2022 Disturbance

NS created 0.64 acres of new disturbed acreage in 2022 by building one new small location, the 17H-E SSMW with an access road. NS drilled a new 17H-E SSMW well in December, the 17H-E SSMW pad will be interim reclaimed in the spring of 2023. The DRMS visited NS in September 2022, and reviewed the following areas undergoing final reclamation; MMC-IRI-2, R, P, Q, E, D, and 94-1M areas. Finding the areas to have met the DRMS final reclamation goals the combined 5.48 acres of NS disturbed acreage is now 'Recognized as Reclaimed by Agency' reducing NS 2022 yearend total acreage disturbed to 98.85 acres.

The total disturbed acreage reported in 2021 was 103.69 acres, and in 2022 the NS land disturbance decreased to 98.858 acres. The total affected acreage of NS operations in 2022 is 108.91, which includes 10.06 acres that have been 'Recognized as Reclaimed by Agency'. Table 8 lists the disturbed acreage as of December 2022.

Process Area:	<u>Acres:</u>
Plant Site Disturbed	26.85
Plant Site Undergoing Interim Reclamation	4.46
Plant Site Undergoing Final Reclamation	0.00
Plant Site Successfully Reclaimed	0.00
Well Field:	
Roads Disturbed	2.49
Well Pads Disturbed	30.48
Roads/Misc. Undergoing Interim Reclamation	1.26
Well Pads Undergoing Interim Reclamation	15.32
Road/Misc. Undergoing Final Reclamation	3.14
Well Pads Undergoing Final Reclamation	14.85
Total Disturbance:	<u>98.85</u>
Road/Misc Recognized as Reclaimed by Agencies	1.05
Well Pads Recognized as Reclaimed by Agencies	9.01
Total Effected Acreage:	<u>108.91</u>

#### Table 8: Disturbed Acreage





## 6.2 Regulatory Compliance

#### 6.2.1 Regulatory Activity

In 2022, required reports were submitted in a timely manner. Required forms were submitted to the appropriate agencies regarding activities pertaining to the new wells drilled & associated plugging and abandonment operations.

### 6.3 Reclamation Activity

#### 6.3.1 Regrading & Scarification

Neither regrading, nor scarification occurred in 2022.

#### 6.3.2 Seeding & Weed Control

During the spring of 2022, hand seeding was conducted along the road adjacent to the reclaimed 8H pad.

Bare Weed Ground Company sprayed active well and utility pads and roadways in 2022. DRMS noted during the 3<sup>rd</sup> Quarter onsite visit to NS that there are weeds on pads C, H and N; these locations will be spot sprayed during the spring of 2023.

Annual vegetation monitoring continued in 2022 for the areas of study that are currently in final reclamation status. The report, *The 2022 Vegetation Monitoring Reclamation Status Report,* prepared by Mr. Rusty Roberts, is presented in Appendix C.

#### 6.3.3 Reclamation Fencing

Repair and maintenance activities were performed, as necessary, on existing fences in 2022.

#### 6.3.4 Precipitation

Perennial vegetation is an indicator of long-term precipitation, the "normal" precipitation for the NS site is 12-14 inches for the calendar year. The distribution of precipitation is important for proper reclamation. 2022 precipitation as measured at the NS plant was 10.35 inches. Table 9 provides a composite of precipitation from the NS mine site for the last 10 years.

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Month/Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	AVG
Jan	0.25	0.98	0.47	1.62	1.89	1.26	0.67	1.06	0.32	0.55	0.91
Feb	0.30	0.35	0.39	1.34	1.52	1.35	1.47	0.83	0.17	0.47	0.82
Mar	0.50	0.28	0.82	1.76	1.01	1.55	0.85	0.95	0.60	0.78	0.93
Apr	1.35	0.63	1.71	5.18	1.11	1.74	2.99	0.82	0.20	0.54	1.63
Мау	1.05	1.66	4.36	2.06	2.17	1.52	2.93	1.29	0.38	1.20	1.86
Jun	0.35	0.01	0.51	0.53	0.47	0.99	3.86	1.83	0.84	0.61	1.00
Jul	1.40	1.34	1.78	1.07	3.36	1.27	1.87	0.61	0.39	0.92	1.40
Aug	0.26	3.17	1.44	2.78	0.85	3.24	0.83	0.37	1.16	0.48	1.46
Sep	2.89	2.14	0.32	2.19	1.55	0.10	1.75	1.17	1.50	1.40	1.50
Oct	1.35	1.09	1.38	1.89	1.62	4.10	1.19	0.08	1.93	1.40	1.60
Nov	1.30	0.80	0.70	1.56	0.64	0.60	1.62	0.14	0.60	0.50	0.85
Dec	0.17	1.00	0.10	1.04	0.44	0.45	0.71	0.66	1.80	1.50	0.79
Annual Totals	11.17	13.45	13.97	23.02	16.63	18.17	20.75	9.79	10.09	10.35	14.74

Table 9: Annual Precipitation in inches (10 Year)

### 6.3.5 Vegetation Monitoring Results

A vegetation survey is undertaken annually on the NS lease to collect data from reclaimed land to monitor and evaluate the success of revegetation efforts.

In 2022 the vegetation survey focused on six reclaimed pad sites in final reclamation status, and four additional undisturbed areas for comparison purposes.

Five of the six locations studied are former core holes; BG-8, G, MMC-IRI-3, T, and U that are currently in final reclamation status. One former production well P&A location the 93-2M is in final reclamation status.

The continued dry conditions that occurred during the growing season in 2022 resulted in only minimal changes to the total vegetation cover and composition of desirable plant species as compared to the values measured in 2021 or with comparison to the undisturbed control areas. None of the above mentioned reclaimed sites achieved successful reclamation criteria in 2022. For details of the 2022 vegetation monitoring results, refer to Appendix C for the full *2022 Vegetation Monitoring Reclamation Status Report* prepared for NS by Mr. Rusty Roberts.

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#### 6.4 Deer Roadkill Study

Per the monitoring requirement from the BLM, NS compiled deer road kill data throughout 2022 for vehicles traveling to and from the mine site. Two deer of unknown sex were reported as struck and killed in 2022. One deer of unknown sex was reported as struck but departed with unknown injuries to the animal. Two elk of unknown sex were reported as struck in 2022; one with no apparent injuries and one with unknown injuries, both ran away from the area.

#### 6.5 Raptor Survey

In 2021 NS conducted a raptor breeding activity survey and inventory in the pinionjuniper habitat that was proximal to the planned 2021/2022 well field development areas. The area surveyed in 2021 included the areas of the planned 2022 well field development activities. NS will coordinate with the BLM to conduct the required 2023 raptor surveys required for possible 2023 & 2024 wellfield development.

#### 6.6 Other Observations

Elk, deer, coyotes, rabbits, bobcat, badger and fox were noted in and around the well-field throughout the year.

#### 6.7 Waste Disposal

Common domestic solid waste was collected in containers and periodically transported to the Rio Blanco County landfill. Sewage from the plant was directed to a septic system with a leach drain field. Process water, including cooling tower blowdowns, boiler ditch, plant wash down, blow down from the boilers, and precipitation runoff, was directed to the process pond. A pump in the process storage pond allows NS to recycle the water to the barren system. The wastewater evaporation pond contains water from the cooling tower overflow and laboratory drains.

Hazardous waste that is generated and collected at the NS facilities is contained safely, stored separately from day to day waste, and then disposed of properly by Clean Harbors, Inc., a certified hazardous waste handling/disposal company. NS did not dispose of any hazardous waste in 2022.





# **Natural Soda LLC**

## 2022

## Appendix A Groundwater Analytical Results



Baramatara	No. of				[		
Parameters Wet Chemistry	No. of Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3	180	404.00	08/28/2013	66.00	09/14/1992	201.52	mg/l
Carbonate as CaCO3	180	138.00	12/05/2012	3.00	06/26/1990	30.04	mg/l
Total Alkalinity as CaCO3	180	524.00	08/28/2013	66.00	09/14/1992	223.79	mg/l
Bromide	26	0.60	07/06/2000	0.05	10/22/1989	0.19	mg/l
Cation-Anion Balance	178	15.70	06/14/2017	-13.00	12/16/2015	0.06	%
Sum of Anions	157	12.60	08/28/2013	5.10	06/14/2017	7.53	meq/l
Sum of Cations	158	11.80	08/28/2013	5.78	09/14/1992	7.48	meq/l
Chemical Oxygen Demand	20	300.00	09/23/2013	10.00	10/22/1989	51.82	mg/l
Chloride	180	75.30	08/28/2013	4.00	09/27/1999	16.07	mg/l
Conductivity, Lab	176	1,210.00	08/28/2013	534.00	08/06/1992	724.80	µmhos
Fluoride	180	18.00	07/31/1991	0.02	04/19/2001	0.47	ma/l
Hardness as CaCO3	179		04/11/2006		03/30/1990	79.22	
		113.00		27.00			mg/l
Nitrate as N, dissolved	28	0.76	07/24/2002	0.02	12/05/2012	0.14	mg/l
Nitrate/Nitrite as N,	28	0.85	07/24/2002	0.03	07/18/1995	0.15	mg/l
Nitrite as N, dissolved	28	0.10	06/26/1991	0.01	06/25/2007	0.04	mg/l
Nitrogen, Ammonia	25	13.10	09/23/2010	0.11	07/12/1996	1.49	mg/l
Nitrogen, Organic	25	13.40	06/26/1991	0.10	07/18/1995	1.93	mg/l
Nitrogen, Total Kjeldahl	25	25.40	09/23/2010	0.20	07/21/1994	3.10	mg/l
pH, lab	179	11.50	12/19/1991	6.60	09/14/1992	8.59	units
Phosphate, total	23	155.00	06/25/2007	0.03	07/02/1998	10.43	mg/l
Phosphorus, total	25	2.33	09/23/2010	0.01	06/26/1991	0.22	mg/l
SAR in Water	169	15.92	03/30/1990	4.82	09/14/1992	6.83	none
Sulfate	180	296.00	03/30/1990	1.00	12/12/2008	126.43	mg/l
Sulfide	22	4.50	09/23/2010	0.03	07/02/1998	0.48	mg/l
Total Dissolved Solids	180	659.00	08/28/2013	329.00	06/14/2017	440.88	mg/l
Conductivity, Field	197	16,000.00	07/01/1990	500.00	02/24/1993	775.11	µmhos
pH, Field	198	10.23	07/19/2009	6.90	12/12/2018	8.68	units
Temperature (°C), Field	108	21.10	07/19/2009	6.40	12/01/1990	12.18	(°C)
Water Level, Field	97	341.00	09/01/2011	314.76	06/06/2022	322.71	Ft.
Parameters	No. of						
	140.01	High	Date	Low	Date	Average	Units
Metals	Samples	ingn					
Metals Aluminum dissolved	Samples		07/27/2001	0.03	07/07/1999	0.42	ma/l
Aluminum, dissolved	27	2.12	07/27/2001	0.03	07/07/1999	0.42	mg/l mg/l
Aluminum, dissolved Arsenic, dissolved	27 26	<u>2.12</u> 0.04	10/22/1989	0.00	12/05/2012	0.01	mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved	27 26 26	2.12 0.04 0.69	10/22/1989 03/30/1990	0.00 0.01	12/05/2012 10/22/1989	0.01 0.06	mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	27 26 26 26	2.12 0.04 0.69 0.01	10/22/1989 03/30/1990 06/26/1991	0.00 0.01 0.01	12/05/2012 10/22/1989 06/26/1991	0.01 0.06 0.01	mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	27 26 26 26 180	2.12 0.04 0.69 0.01 0.43	10/22/1989 03/30/1990 06/26/1991 08/28/2013	0.00 0.01 0.01 0.02	12/05/2012 10/22/1989 06/26/1991 04/24/1991	0.01 0.06 0.01 0.06	mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	27 26 26 180 26	2.12 0.04 0.69 0.01 0.43 0.00	10/22/1989 03/30/1990 06/26/1991 08/28/2013 09/13/1995	0.00 0.01 0.01 0.02 0.00	12/05/2012 10/22/1989 06/26/1991 04/24/1991 09/13/1995	0.01 0.06 0.01 0.06 0.00	mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	27 26 26 180 26 180	2.12 0.04 0.69 0.01 0.43 0.00 17.00	10/22/1989 03/30/1990 06/26/1991 08/28/2013 09/13/1995 09/27/1990	0.00 0.01 0.01 0.02 0.00 4.50	12/05/2012 10/22/1989 06/26/1991 04/24/1991 09/13/1995 06/25/2007	0.01 0.06 0.01 0.06 0.00 11.56	mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	27 26 26 180 26 180 26 180 27	2.12 0.04 0.69 0.01 0.43 0.00 17.00 0.01	10/22/1989 03/30/1990 06/26/1991 08/28/2013 09/13/1995 09/27/1990 06/26/1991	0.00 0.01 0.02 0.00 4.50 0.01	12/05/2012 10/22/1989 06/26/1991 04/24/1991 09/13/1995 06/25/2007 06/26/1991	0.01 0.06 0.01 0.06 0.00 11.56 0.01	mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	27 26 26 180 26 180 26 180 27 27	2.12 0.04 0.69 0.01 0.43 0.00 17.00 0.01 0.20	10/22/1989 03/30/1990 06/26/1991 08/28/2013 09/13/1995 09/27/1990 06/26/1991 12/05/2012	0.00 0.01 0.02 0.00 4.50 0.01 0.01	12/05/2012 10/22/1989 06/26/1991 04/24/1991 09/13/1995 06/25/2007 06/26/1991 03/30/1990	0.01 0.06 0.01 0.06 0.00 11.56 0.01 0.06	mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	27 26 26 180 26 180 27 27 27 26	2.12 0.04 0.69 0.01 0.43 0.00 17.00 0.01 0.20 4.17	10/22/1989 03/30/1990 06/26/1991 08/28/2013 09/13/1995 09/27/1990 06/26/1991 12/05/2012 09/27/1990	0.00 0.01 0.02 0.00 4.50 0.01 0.01 0.01	12/05/2012 10/22/1989 06/26/1991 04/24/1991 09/13/1995 06/25/2007 06/26/1991 03/30/1990 07/07/1999	0.01 0.06 0.01 0.06 0.00 11.56 0.01 0.06 0.43	mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	27 26 26 180 26 180 27 27 27 26 26	2.12 0.04 0.69 0.01 0.43 0.00 17.00 0.01 0.20 4.17 0.06	10/22/1989 03/30/1990 06/26/1991 08/28/2013 09/13/1995 09/27/1990 06/26/1991 12/05/2012 09/27/1990 08/19/2009	0.00 0.01 0.02 0.00 4.50 0.01 0.01 0.01 0.02	12/05/2012 10/22/1989 06/26/1991 04/24/1991 09/13/1995 06/25/2007 06/26/1991 03/30/1990 07/07/1999 06/26/1991	0.01 0.06 0.01 0.06 0.00 11.56 0.01 0.06 0.43 0.04	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	27 26 26 180 26 180 27 27 27 27 26 26 26 26	2.12 0.04 0.69 0.01 0.43 0.00 17.00 0.01 0.20 4.17 0.06 0.05	10/22/1989 03/30/1990 06/26/1991 08/28/2013 09/13/1995 09/27/1990 06/26/1991 12/05/2012 09/27/1990 08/19/2009 03/30/1990	0.00 0.01 0.02 0.00 4.50 0.01 0.01 0.01 0.02 0.02	12/05/2012 10/22/1989 06/26/1991 04/24/1991 09/13/1995 06/25/2007 06/26/1991 03/30/1990 07/07/1999 06/26/1991	0.01 0.06 0.01 0.06 0.00 11.56 0.01 0.06 0.43 0.04 0.03	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	27 26 26 180 26 180 27 27 27 27 26 26 26 26 180	2.12 0.04 0.69 0.01 0.43 0.00 17.00 0.01 0.20 4.17 0.06 0.05 18.40	10/22/1989 03/30/1990 06/26/1991 08/28/2013 09/13/1995 09/27/1990 06/26/1991 12/05/2012 09/27/1990 08/19/2009 03/30/1990 07/24/2002	0.00 0.01 0.02 0.00 4.50 0.01 0.01 0.01 0.02 0.02 3.00	12/05/2012 10/22/1989 06/26/1991 04/24/1991 09/13/1995 06/25/2007 06/26/1991 03/30/1990 06/26/1991 06/26/1991 03/30/1990	0.01 0.06 0.01 0.06 0.00 11.56 0.01 0.06 0.43 0.04 0.03 12.22	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	27 26 26 180 26 180 27 27 27 27 26 26 26 26 180 26	2.12 0.04 0.69 0.01 0.43 0.00 17.00 0.01 0.20 4.17 0.06 0.05 18.40 0.14	10/22/1989 03/30/1990 06/26/1991 08/28/2013 09/13/1995 09/27/1990 06/26/1991 12/05/2012 09/27/1990 08/19/2009 03/30/1990 07/24/2002 09/27/1990	0.00 0.01 0.02 0.00 4.50 0.01 0.01 0.02 0.02 3.00 0.01	12/05/2012 10/22/1989 06/26/1991 04/24/1991 09/13/1995 06/25/2007 06/26/1991 03/30/1990 06/26/1991 06/26/1991 03/30/1990 07/07/1999	0.01 0.06 0.01 0.06 0.00 11.56 0.01 0.06 0.43 0.04 0.03 12.22 0.03	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Chromium, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved	27 26 26 180 26 180 27 27 27 27 26 26 26 26 180 26 25	2.12 0.04 0.69 0.01 0.43 0.00 17.00 0.01 0.20 4.17 0.06 0.05 18.40 0.14 0.00	10/22/1989 03/30/1990 06/26/1991 08/28/2013 09/13/1995 09/27/1990 06/26/1991 12/05/2012 09/27/1990 08/19/2009 03/30/1990 07/24/2002 09/27/1990 10/22/1989	$\begin{array}{c} 0.00\\ 0.01\\ 0.02\\ 0.00\\ 4.50\\ 0.01\\ 0.01\\ 0.01\\ 0.02\\ 0.02\\ 3.00\\ 0.01\\ 0.00\\ \end{array}$	12/05/2012 10/22/1989 06/26/1991 04/24/1991 09/13/1995 06/25/2007 06/26/1991 03/30/1990 07/07/1999 06/26/1991 03/30/1990 07/07/1999 06/26/1991	0.01 0.06 0.00 11.56 0.01 0.06 0.43 0.04 0.03 12.22 0.03 0.00	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved	27 26 26 180 26 180 27 27 27 27 26 26 26 26 180 26 25 26	2.12 0.04 0.69 0.01 0.43 0.00 17.00 0.01 0.20 4.17 0.06 0.05 18.40 0.14 0.00 0.15	10/22/1989 03/30/1990 06/26/1991 08/28/2013 09/13/1995 09/27/1990 06/26/1991 12/05/2012 09/27/1990 08/19/2009 03/30/1990 07/24/2002 09/27/1990 10/22/1989 06/26/1990	0.00 0.01 0.02 0.00 4.50 0.01 0.01 0.02 0.02 3.00 0.01 0.01 0.00 0.01	12/05/2012 10/22/1989 06/26/1991 04/24/1991 09/13/1995 06/25/2007 06/26/1991 03/30/1990 07/07/1999 06/26/1991 03/30/1990 07/07/1999 06/26/1991 07/12/1996	0.01 0.06 0.00 11.56 0.01 0.06 0.43 0.04 0.03 12.22 0.03 0.00 0.07	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved	27 26 26 180 26 180 27 27 27 27 26 26 26 26 26 26 25 26 26 26 26	2.12 0.04 0.69 0.01 0.43 0.00 17.00 0.01 0.20 4.17 0.06 0.05 18.40 0.14 0.00 0.15 0.02	10/22/1989 03/30/1990 06/26/1991 08/28/2013 09/13/1995 09/27/1990 06/26/1991 12/05/2012 09/27/1990 08/19/2009 03/30/1990 07/24/2002 09/27/1990 10/22/1989 06/26/1990 10/22/1989	0.00 0.01 0.02 0.00 4.50 0.01 0.01 0.02 0.02 3.00 0.01 0.00 0.01 0.00 0.01 0.02	12/05/2012 10/22/1989 06/26/1991 04/24/1991 09/13/1995 06/25/2007 06/26/1991 03/30/1990 07/07/1999 06/26/1991 03/30/1990 07/07/1999 06/26/1991 07/12/1996 10/22/1989	0.01 0.06 0.01 0.06 0.00 11.56 0.01 0.06 0.43 0.04 0.03 12.22 0.03 0.00 0.07 0.02	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Nickel, dissolved Potassium, dissolved	27 26 26 180 26 180 27 27 27 27 26 26 26 26 26 25 26 26 26 26 26 180	2.12 0.04 0.69 0.01 0.43 0.00 17.00 0.01 0.20 4.17 0.06 0.05 18.40 0.14 0.00 0.15 0.02 10.00	10/22/1989 03/30/1990 06/26/1991 08/28/2013 09/13/1995 09/27/1990 06/26/1991 12/05/2012 09/27/1990 08/19/2009 03/30/1990 07/24/2002 09/27/1990 10/22/1989 06/26/1990 10/22/1989 01/31/1991	0.00 0.01 0.02 0.00 4.50 0.01 0.01 0.02 0.02 3.00 0.01 0.00 0.01 0.00 0.01 0.02 0.02 0.04	12/05/2012 10/22/1989 06/26/1991 04/24/1991 09/13/1995 06/25/2007 06/26/1991 03/30/1990 07/07/1999 06/26/1991 03/30/1990 07/07/1999 06/26/1991 07/12/1996 10/22/1989 04/28/1995	0.01 0.06 0.01 0.06 0.00 11.56 0.01 0.06 0.43 0.04 0.03 12.22 0.03 0.00 0.07 0.02 1.17	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	27 26 26 26 180 26 180 27 27 27 26 26 26 26 26 26 26 26 26 26 26 26 26	2.12 0.04 0.69 0.01 0.43 0.00 17.00 0.01 0.20 4.17 0.06 0.05 18.40 0.14 0.00 0.15 0.02 10.00 0.00	10/22/1989 03/30/1990 06/26/1991 08/28/2013 09/13/1995 09/27/1990 06/26/1991 12/05/2012 09/27/1990 08/19/2009 03/30/1990 07/24/2002 09/27/1990 10/22/1989 06/26/1990 10/22/1989 01/31/1991 03/30/1990	0.00 0.01 0.02 0.00 4.50 0.01 0.01 0.02 0.02 3.00 0.01 0.00 0.01 0.00 0.01 0.02 0.04 0.00	12/05/2012 10/22/1989 06/26/1991 04/24/1991 09/13/1995 06/25/2007 06/26/1991 03/30/1990 07/07/1999 06/26/1991 03/30/1990 07/07/1999 06/26/1991 07/12/1996 10/22/1989 04/28/1995 09/27/1990	0.01 0.06 0.01 0.06 0.00 11.56 0.01 0.06 0.43 0.04 0.03 12.22 0.03 0.00 0.07 0.02 1.17 0.00	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	27 26 26 180 26 180 27 27 26 26 26 26 26 26 26 26 26 26	2.12 0.04 0.69 0.01 0.43 0.00 17.00 0.01 0.20 4.17 0.06 0.05 18.40 0.14 0.00 0.15 0.02 10.00 0.00 33.20	10/22/1989 03/30/1990 06/26/1991 08/28/2013 09/13/1995 09/27/1990 06/26/1991 12/05/2012 09/27/1990 03/30/1990 07/24/2002 09/27/1990 10/22/1989 06/26/1990 10/22/1989 01/31/1991 03/30/1990 07/27/2001	0.00 0.01 0.02 0.00 4.50 0.01 0.01 0.01 0.02 0.02 3.00 0.01 0.00 0.01 0.02 0.04 0.00 4.80	12/05/2012 10/22/1989 06/26/1991 04/24/1991 09/13/1995 06/25/2007 06/26/1991 03/30/1990 07/07/1999 06/26/1991 03/30/1990 07/07/1999 06/26/1991 07/12/1996 10/22/1989 04/28/1995 09/27/1990 01/21/1992	0.01 0.06 0.01 0.06 0.00 11.56 0.01 0.06 0.43 0.04 0.03 12.22 0.03 0.00 0.07 0.02 1.17 0.00 15.52	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Selenium, dissolved Selenium, dissolved	27 26 26 180 26 180 27 27 26 26 26 26 26 26 26 26 26 26	2.12 0.04 0.69 0.01 0.43 0.00 17.00 0.01 0.20 4.17 0.06 0.05 18.40 0.14 0.00 0.15 0.02 10.00 0.00 33.20 236.00	10/22/1989 03/30/1990 06/26/1991 08/28/2013 09/13/1995 09/27/1990 06/26/1991 12/05/2012 09/27/1990 03/30/1990 07/24/2002 09/27/1989 06/26/1990 10/22/1989 06/26/1990 10/22/1989 01/31/1991 03/30/1990 07/27/2001 08/28/2013	0.00 0.01 0.02 0.00 4.50 0.01 0.01 0.01 0.02 0.02 3.00 0.01 0.02 0.02 3.00 0.01 0.02 0.04 0.00 4.80 96.00	12/05/2012 10/22/1989 06/26/1991 04/24/1991 09/13/1995 06/25/2007 06/26/1991 03/30/1990 07/07/1999 06/26/1991 06/26/1991 07/07/1999 06/26/1991 07/12/1996 10/22/1989 04/28/1995 09/27/1990 01/21/1992	0.01 0.06 0.01 0.06 0.00 11.56 0.01 0.06 0.43 0.04 0.03 12.22 0.03 0.00 0.07 0.02 1.17 0.00 15.52 133.45	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Selenium, dissolved Selenium, dissolved Selenium, dissolved Sodium, dissolved	27 26 26 180 26 180 27 27 26 26 26 26 26 26 26 26 26 180 26 180 26 180 26 180 26 180 26 180 27 27 26 180 27 27 26 180 27 27 26 180 27 27 26 26 180 27 27 26 26 180 27 27 26 26 180 27 27 26 26 180 27 27 26 26 180 27 27 26 26 180 26 26 26 26 26 26 26 26 26 26	2.12 0.04 0.69 0.01 0.43 0.00 17.00 0.01 0.20 4.17 0.06 0.05 18.40 0.14 0.00 0.15 0.02 10.00 0.01 0.20 10.00 0.15 0.02 10.00 0.00 33.20 236.00 1.09	10/22/1989 03/30/1990 06/26/1991 08/28/2013 09/13/1995 09/27/1990 06/26/1991 12/05/2012 09/27/1990 08/19/2009 03/30/1990 07/24/2002 09/27/1989 06/26/1990 10/22/1989 06/26/1990 10/22/1989 01/31/1991 03/30/1990 07/27/2001 08/28/2013 04/11/2006	0.00 0.01 0.02 0.00 4.50 0.01 0.01 0.01 0.02 0.02 3.00 0.01 0.02 0.02 3.00 0.01 0.02 0.04 0.00 4.80 96.00 0.17	12/05/2012 10/22/1989 06/26/1991 04/24/1991 09/13/1995 06/25/2007 06/26/1991 03/30/1990 07/07/1999 06/26/1991 06/26/1991 07/07/1999 06/26/1991 07/12/1996 10/22/1989 04/28/1995 09/27/1990 01/21/1992 09/14/1992 03/30/1990	0.01 0.06 0.01 0.06 0.00 11.56 0.01 0.06 0.43 0.04 0.03 12.22 0.03 0.00 0.07 0.02 1.17 0.00 15.52 133.45 0.82	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Selenium, dissolved Selenium, dissolved	27 26 26 180 26 180 27 27 26 26 26 26 26 26 26 26 26 26	2.12 0.04 0.69 0.01 0.43 0.00 17.00 0.01 0.20 4.17 0.06 0.05 18.40 0.14 0.00 0.15 0.02 10.00 0.00 33.20 236.00	10/22/1989 03/30/1990 06/26/1991 08/28/2013 09/13/1995 09/27/1990 06/26/1991 12/05/2012 09/27/1990 03/30/1990 07/24/2002 09/27/1989 06/26/1990 10/22/1989 06/26/1990 10/22/1989 01/31/1991 03/30/1990 07/27/2001 08/28/2013	0.00 0.01 0.02 0.00 4.50 0.01 0.01 0.01 0.02 0.02 3.00 0.01 0.02 0.02 3.00 0.01 0.02 0.04 0.00 4.80 96.00	12/05/2012 10/22/1989 06/26/1991 04/24/1991 09/13/1995 06/25/2007 06/26/1991 03/30/1990 07/07/1999 06/26/1991 06/26/1991 07/07/1999 06/26/1991 07/12/1996 10/22/1989 04/28/1995 09/27/1990 01/21/1992	0.01 0.06 0.01 0.06 0.00 11.56 0.01 0.06 0.43 0.04 0.03 12.22 0.03 0.00 0.07 0.02 1.17 0.00 15.52 133.45	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Table 10: 89-3 Annual Perched Aquifer

DAUB & ASSOCIATES, INC. 201 3 - The Contraction of the C



Parameters	No. of	,	er la	Deta	1.0	Deta	Averag	11.4
Wet	Samples	HI	gh	Date	Low	Date	e	Units
Bicarbonate as	124	548	3.00	01/08/201	0.00	08/01/199	161.44	mg/l
Carbonate as	124		0.00	10/25/199	0.00	08/30/200	117.29	mg/l
Total Alkalinity	124		0.00	08/01/199	96.40	08/10/202	293.80	mg/l
Bromide	27		60	07/21/199	0.06	06/16/201	0.29	mg/l
Cation-Anion	121	63	.90	08/14/201	-16.00	03/13/200	0.64	%
Sum of Anions	114	24	.97	08/13/199	5.00	08/10/202	8.85	meq/l
Sum of	114	50	.00	08/14/201	5.70	06/14/201	9.30	meq/l
Chemical	20	300	0.00	09/21/201	10.00	08/16/199	46.25	mg/l
Chloride	124	400	0.00	04/24/199	14.00	12/15/199	53.43	mg/l
Conductivity,	121	2,63	30.00	01/20/199	347.0	08/10/202	864.43	µmho
Fluoride	124	24	.00	09/02/199	1.70	04/20/199	6.44	mg/l
Hardness as	124	553	3.00	08/01/199	2.00	06/23/201	36.16	mg/l
Nitrate as N,	27	2.	77	06/26/200	0.02	06/28/200	0.38	mg/l
Nitrate/Nitrite as	27	2.	79	06/26/200	0.02	09/07/202	0.33	mg/l
Nitrite as N,	27	0.	13	08/16/199	0.01	08/01/199	0.05	mg/l
Nitrogen,	26	2.	57	07/31/199	0.25	06/09/199	0.74	mg/l
Nitrogen,	26		90	07/21/199	0.10	06/16/201	1.03	mg/l
Nitrogen, Total	26		90	07/31/199	0.33	09/07/202	1.77	mg/l
pH, lab	121		.30	07/31/199	6.60	08/30/200	9.56	units
Phosphate,	25		5.00	06/28/200	0.03	09/07/202	17.55	mg/l
Phosphorus,	26		41	09/21/201	0.01	09/07/202	0.25	mg/l
SAR in Water	116		.00	08/14/201	5.76	08/01/199	21.18	none
Sulfate	124		3.00	12/15/199	40.40	09/16/201	75.43	mg/l
Sulfide	25		00	06/13/200	0.03	06/02/199	1.08	mg/l
	122		4.00	08/01/199	328.0	08/10/202	581.02	mg/l
Total	182							
Conductivity,			0.00	08/01/199	573.0	08/10/202	1,143.1	µmho
pH, Field	<u>182</u>		.80	12/01/199	6.04	08/30/200	10.21	units (°C)
Mater Level	Temperatur	122	20.10	05/16/200	6.50	12/12/200	12.29	
Water Level,	99	387.19	08/14/201	308.80	06/2	20/2017	380.46	Ft.
Parameters				1				
							Δνοταα	
	No. of Samples	High	Date	Low		Date	Averag	Units
Metals	Samples	•		-			е	
Aluminum,	Samples 27	11.10	08/16/199	0.06	07/2	29/2009	<b>e</b> 3.18	mg/l
Aluminum, Arsenic,	Samples 27 27	<u>11.10</u> 0.01	08/16/199 07/31/199	0.06	07/2 11/2	29/2009 27/2012	<b>e</b> 3.18 0.00	mg/l mg/l
Aluminum, Arsenic, Barium,	Samples           27           27           27           27           27	<u>11.10</u> 0.01 0.29	08/16/199 07/31/199 08/14/199	0.06 0.00 0.01	07/2 11/2 11/2	29/2009 27/2012 27/2012	e 3.18 0.00 0.07	mg/l mg/l mg/l
Aluminum, Arsenic, Barium, Beryllium,	Samples           27           27           27           27           27           27           27	11.10 0.01 0.29 0.00	08/16/199 07/31/199 08/14/199 08/14/199	0.06 0.00 0.01 0.00	07/2 11/2 11/2 08/	29/2009 27/2012 27/2012 14/1995	e 3.18 0.00 0.07 0.00	mg/l mg/l mg/l mg/l
Aluminum, Arsenic, Barium, Beryllium, Boron,	Samples           27           27           27           27           27           124	11.10 0.01 0.29 0.00 0.39	08/16/199 07/31/199 08/14/199 08/14/199 01/08/201	0.06 0.00 0.01 0.00 0.00	07/2 11/2 11/2 08/ 10/2	29/2009 27/2012 27/2012 14/1995 25/1990	e 3.18 0.00 0.07 0.00 0.17	mg/l mg/l mg/l mg/l mg/l
Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium,	Samples           27           27           27           27           27           27           27           27           27           27           27           27           27           27	11.10 0.01 0.29 0.00 0.39 0.03	08/16/199 07/31/199 08/14/199 08/14/199 01/08/201 07/21/199	0.06 0.00 0.01 0.00 0.00 0.00 0.03	07/2 11/2 11/2 08/ 10/2 07/2	29/2009 27/2012 27/2012 14/1995 25/1990 21/1993	e 3.18 0.00 0.07 0.00 0.17 0.03	mg/l mg/l mg/l mg/l mg/l
Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium,	Samples           27           27           27           27           27           27           27           124           27           124           27           124	11.10 0.01 0.29 0.00 0.39 0.03 223.00	08/16/199 07/31/199 08/14/199 08/14/199 01/08/201 07/21/199 08/01/199	0.06 0.00 0.01 0.00 0.00 0.03 0.90	07/2 11/2 11/2 08/ 10/2 07/2 06/2	29/2009 27/2012 27/2012 14/1995 25/1990 21/1993 23/2010	e 3.18 0.00 0.07 0.00 0.17 0.03 10.83	mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium,	Samples           27           27           27           27           27           124           27           124           27           124           27           124           27	11.10 0.01 0.29 0.00 0.39 0.03 223.00 0.02	08/16/199 07/31/199 08/14/199 08/14/199 01/08/201 07/21/199 08/01/199 08/01/199	0.06 0.00 0.01 0.00 0.00 0.03 0.90 0.01	07/2 11/2 11/2 08/ 10/2 07/2 06/2 08/	29/2009 27/2012 27/2012 14/1995 25/1990 21/1993 23/2010 16/1996	e 3.18 0.00 0.07 0.00 0.17 0.03 10.83 0.01	mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper,	Samples           27           27           27           27           27           124           27           124           27           124           27           124           27           124           27           124           27           124           27           27           27           27	11.10 0.01 0.29 0.00 0.39 0.03 223.00 0.02 0.20	08/16/199 07/31/199 08/14/199 08/14/199 01/08/201 07/21/199 08/01/199 08/01/199 06/14/200	0.06 0.00 0.01 0.00 0.00 0.03 0.90 0.01 0.01	07/2 11/2 11/2 08/ 07/2 06/2 08/ 08/	29/2009 27/2012 27/2012 14/1995 25/1990 21/1993 23/2010 16/1996 01/1990	e 3.18 0.00 0.07 0.00 0.17 0.03 10.83 0.01 0.04	mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved	Samples           27           27           27           27           124           27           124           27           124           27           227           27           27           27           27           27           27           27           27           27           27           27           27	11.10 0.01 0.29 0.00 0.39 0.03 223.00 0.02 0.20 14.10	08/16/199 07/31/199 08/14/199 08/14/199 01/08/201 07/21/199 08/01/199 08/01/199 06/14/200 07/21/199	0.06 0.00 0.01 0.00 0.03 0.90 0.01 0.01 0.02	07/2 11/2 11/2 08/ 07/2 06/2 08/ 08/ 08/ 07/2	29/2009 27/2012 27/2012 14/1995 25/1990 21/1993 23/2010 16/1996 01/1990 21/1992	e 3.18 0.00 0.07 0.00 0.17 0.03 10.83 0.01 0.04 3.20	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead,	Samples           27           27           27           27           124           27           124           27           124           27           22           27           27           27           27           27           27           27           27           27           27           27           27           27           27           27           27           27	11.10 0.01 0.29 0.00 0.39 0.03 223.00 0.02 0.20 14.10 0.10	08/16/199 07/31/199 08/14/199 08/14/199 01/08/201 07/21/199 08/01/199 08/01/199 06/14/200 07/21/199 07/21/199	0.06 0.00 0.01 0.00 0.03 0.90 0.01 0.01 0.02 0.05	07/2 11/2 11/2 08/ 07/2 06/2 08/ 08/ 08/ 08/ 07/2 06/	29/2009 27/2012 27/2012 14/1995 25/1990 21/1993 23/2010 16/1996 01/1990 21/1992 16/1997	e 3.18 0.00 0.07 0.00 0.17 0.03 10.83 0.01 0.04 3.20 0.07	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, Lithium,	Samples           27           27           27           27           124           27           124           27           227           27	11.10 0.01 0.29 0.00 0.39 0.03 223.00 0.02 0.20 14.10 0.10 0.19	08/16/199 07/31/199 08/14/199 08/14/199 01/08/201 07/21/199 08/01/199 06/14/200 07/21/199 07/21/199 07/21/199 08/13/199	0.06 0.00 0.01 0.00 0.03 0.90 0.01 0.01 0.02 0.05 0.00	07/2 11/2 08/ 007/2 06/2 08/ 08/ 07/2 06/ 08/ 07/2 06/ 08/2	29/2009 27/2012 27/2012 14/1995 25/1990 21/1993 23/2010 16/1996 01/1990 21/1992 16/1997 30/2008	e 3.18 0.00 0.07 0.00 0.17 0.03 10.83 0.01 0.04 3.20 0.07 0.05	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead,	Samples           27           27           27           27           124           27           124           27           227           27	11.10 0.01 0.29 0.00 0.39 0.03 223.00 0.02 0.20 14.10 0.10 0.19 31.20	08/16/199 07/31/199 08/14/199 08/14/199 01/08/201 07/21/199 08/01/199 06/14/200 07/21/199 07/21/199 07/21/199 08/13/199 03/14/200	0.06 0.00 0.01 0.00 0.00 0.03 0.90 0.01 0.01 0.02 0.05 0.00 0.30	07/2 11/2 08/ 10/2 06/2 08/ 08/ 07/2 06/ 08/2 07/2 06/ 08/2 09/2	29/2009 27/2012 27/2012 14/1995 25/1990 21/1993 23/2010 16/1996 01/1990 21/1992 16/1997 30/2008 26/2001	e 3.18 0.00 0.07 0.00 0.17 0.03 10.83 0.01 0.04 3.20 0.07	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, Lithium,	Samples           27           27           27           27           124           27           124           27           227           27	11.10 0.01 0.29 0.00 0.39 0.03 223.00 0.02 0.20 14.10 0.10 0.19	08/16/199 07/31/199 08/14/199 08/14/199 01/08/201 07/21/199 08/01/199 06/14/200 07/21/199 07/21/199 07/21/199 08/13/199	0.06 0.00 0.01 0.00 0.00 0.03 0.90 0.01 0.01 0.02 0.05 0.00 0.30	07/2 11/2 08/ 10/2 06/2 08/ 08/ 07/2 06/ 08/2 07/2 06/ 08/2 09/2	29/2009 27/2012 27/2012 14/1995 25/1990 21/1993 23/2010 16/1996 01/1990 21/1992 16/1997 30/2008	e 3.18 0.00 0.07 0.00 0.17 0.03 10.83 0.01 0.04 3.20 0.07 0.05	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, Lithium, Magnesium, Manganese, Mercury,	Samples           27           27           27           27           124           27           124           27           27           27           124           27	11.10 0.01 0.29 0.00 0.39 0.03 223.00 0.02 0.20 14.10 0.10 0.19 31.20 0.37 0.00	08/16/199 07/31/199 08/14/199 08/14/199 01/08/201 07/21/199 08/01/199 08/01/199 06/14/200 07/21/199 07/21/199 08/13/199 03/14/200 08/14/199	0.06 0.00 0.01 0.00 0.00 0.03 0.90 0.01 0.01 0.02 0.05 0.00 0.30 0.01 0.01 0.00	07/2 11/2 08/ 10/2 07/2 06/2 08/2 07/2 06/ 08/2 08/2 09/2 08/2 08/2 08/2 08/2 08/2 08/2 08/2 08	29/2009 27/2012 27/2012 14/1995 25/1990 21/1993 23/2010 16/1996 01/1990 21/1992 16/1997 30/2008 26/2001 30/2008 14/1995	e 3.18 0.00 0.07 0.00 0.17 0.03 10.83 0.01 0.04 3.20 0.07 0.05 2.57 0.09 0.00	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum,	Samples           27           27           27           27           27           124           27           227           227           227           27 <tr< td=""><td>11.10 0.01 0.29 0.00 0.39 0.03 223.00 0.02 0.20 14.10 0.10 0.19 31.20 0.37</td><td>08/16/199 07/31/199 08/14/199 08/14/199 01/08/201 07/21/199 08/01/199 08/01/199 06/14/200 07/21/199 07/21/199 08/13/199 03/14/200 08/14/199</td><td>0.06 0.00 0.01 0.00 0.00 0.03 0.90 0.01 0.01 0.02 0.05 0.00 0.30 0.01 0.01 0.00</td><td>07/2 11/2 08/ 10/2 07/2 06/2 08/2 07/2 06/ 08/2 08/2 09/2 08/2 08/2 08/2 08/2 08/2 08/2 08/2 08</td><td>29/2009 27/2012 27/2012 14/1995 25/1990 21/1993 23/2010 16/1996 01/1990 21/1992 16/1997 30/2008 26/2001 30/2008</td><td>e 3.18 0.00 0.07 0.00 0.17 0.03 10.83 0.01 0.04 3.20 0.07 0.05 2.57 0.09</td><td>mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l</td></tr<>	11.10 0.01 0.29 0.00 0.39 0.03 223.00 0.02 0.20 14.10 0.10 0.19 31.20 0.37	08/16/199 07/31/199 08/14/199 08/14/199 01/08/201 07/21/199 08/01/199 08/01/199 06/14/200 07/21/199 07/21/199 08/13/199 03/14/200 08/14/199	0.06 0.00 0.01 0.00 0.00 0.03 0.90 0.01 0.01 0.02 0.05 0.00 0.30 0.01 0.01 0.00	07/2 11/2 08/ 10/2 07/2 06/2 08/2 07/2 06/ 08/2 08/2 09/2 08/2 08/2 08/2 08/2 08/2 08/2 08/2 08	29/2009 27/2012 27/2012 14/1995 25/1990 21/1993 23/2010 16/1996 01/1990 21/1992 16/1997 30/2008 26/2001 30/2008	e 3.18 0.00 0.07 0.00 0.17 0.03 10.83 0.01 0.04 3.20 0.07 0.05 2.57 0.09	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, Lithium, Magnesium, Manganese, Mercury,	Samples           27           27           27           27           124           27           124           27           27           27           124           27	11.10 0.01 0.29 0.00 0.39 0.03 223.00 0.02 0.20 14.10 0.10 0.19 31.20 0.37 0.00	08/16/199 07/31/199 08/14/199 08/14/199 01/08/201 07/21/199 08/01/199 08/01/199 06/14/200 07/21/199 07/21/199 08/13/199 03/14/200 08/14/199	0.06 0.00 0.01 0.00 0.03 0.90 0.01 0.01 0.02 0.05 0.00 0.30 0.01 0.01 0.00 0.01	07/2 11/2 11/2 08/ 10/2 07/2 06/2 08/2 06/ 08/2 09/2 08/2 08/2 08/2 08/2 08/2 08/2 08/2 08	29/2009 27/2012 27/2012 14/1995 25/1990 21/1993 23/2010 16/1996 01/1990 21/1992 16/1997 30/2008 26/2001 30/2008 14/1995	e 3.18 0.00 0.07 0.00 0.17 0.03 10.83 0.01 0.04 3.20 0.07 0.05 2.57 0.09 0.00	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum,	Samples           27           27           27           27           27           124           27           227           227           227           27 <tr< td=""><td>11.10 0.01 0.29 0.00 0.39 0.03 223.00 0.02 0.20 14.10 0.10 0.19 31.20 0.37 0.00 0.10</td><td>08/16/199 07/31/199 08/14/199 08/14/199 01/08/201 07/21/199 08/01/199 08/01/199 06/14/200 07/21/199 07/21/199 08/13/199 03/14/200 08/14/199 08/14/199</td><td>0.06 0.00 0.01 0.00 0.03 0.90 0.01 0.01 0.02 0.05 0.00 0.30 0.01 0.01 0.01 0.01 0.01 0.01</td><td>07/2 11/2 11/2 08/ 10/2 07/2 06/2 08/2 07/2 06/ 08/2 09/2 08/2 08/2 08/2 08/2 08/2 08/2 08/2 08</td><td>29/2009 27/2012 27/2012 14/1995 25/1990 21/1993 23/2010 16/1996 01/1990 21/1992 16/1997 30/2008 26/2001 30/2008 14/1995 16/1997</td><td>e 3.18 0.00 0.07 0.00 0.17 0.03 10.83 0.01 0.04 3.20 0.07 0.05 2.57 0.09 0.00 0.04</td><td>mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l</td></tr<>	11.10 0.01 0.29 0.00 0.39 0.03 223.00 0.02 0.20 14.10 0.10 0.19 31.20 0.37 0.00 0.10	08/16/199 07/31/199 08/14/199 08/14/199 01/08/201 07/21/199 08/01/199 08/01/199 06/14/200 07/21/199 07/21/199 08/13/199 03/14/200 08/14/199 08/14/199	0.06 0.00 0.01 0.00 0.03 0.90 0.01 0.01 0.02 0.05 0.00 0.30 0.01 0.01 0.01 0.01 0.01 0.01	07/2 11/2 11/2 08/ 10/2 07/2 06/2 08/2 07/2 06/ 08/2 09/2 08/2 08/2 08/2 08/2 08/2 08/2 08/2 08	29/2009 27/2012 27/2012 14/1995 25/1990 21/1993 23/2010 16/1996 01/1990 21/1992 16/1997 30/2008 26/2001 30/2008 14/1995 16/1997	e 3.18 0.00 0.07 0.00 0.17 0.03 10.83 0.01 0.04 3.20 0.07 0.05 2.57 0.09 0.00 0.04	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel,	Samples           27           27           27           27           27           124           27           227           27	11.10 0.01 0.29 0.00 0.39 0.03 223.00 0.02 0.20 14.10 0.10 0.19 31.20 0.37 0.00 0.10 0.02 146.00	08/16/199 07/31/199 08/14/199 08/14/199 08/0201 07/21/199 08/01/199 08/01/199 06/14/200 07/21/199 07/21/199 08/13/199 03/14/200 08/14/199 08/14/199 08/01/199 10/25/199	0.06 0.00 0.01 0.00 0.03 0.90 0.01 0.01 0.02 0.05 0.00 0.30 0.01 0.00 0.30 0.01 0.01 0.01	07/2 11/2 11/2 08/ 10/2 06/2 08/2 08/2 08/2 08/2 08/2 08/2 08/2 08	29/2009 27/2012 27/2012 14/1995 25/1990 21/1993 23/2010 16/1996 01/1990 21/1992 16/1997 30/2008 26/2001 30/2008 14/1995 16/1997 16/1996	e 3.18 0.00 0.07 0.00 0.17 0.03 10.83 0.01 0.04 3.20 0.07 0.05 2.57 0.09 0.00 0.00 0.04 0.01 7.47	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium,	Samples           27           27           27           27           27           124           27	11.10 0.01 0.29 0.00 0.39 0.03 223.00 0.02 0.20 14.10 0.10 0.19 31.20 0.37 0.00 0.10 0.02 146.00 0.00	08/16/199 07/31/199 08/14/199 08/14/199 08/08/201 07/21/199 08/01/199 08/01/199 06/14/200 07/21/199 07/21/199 08/13/199 08/14/199 08/14/199 08/01/199 08/01/199 07/31/199	0.06 0.00 0.01 0.00 0.00 0.03 0.90 0.01 0.01 0.02 0.05 0.00 0.30 0.01 0.00 0.01 0.01 0.01 0.01	07/2 11/2 11/2 08/ 10/2 06/2 08/2 08/2 08/2 08/2 08/2 08/2 08/2 08	29/2009 27/2012 27/2012 14/1995 25/1990 21/1993 23/2010 16/1996 01/1990 21/1992 16/1997 30/2008 26/2001 30/2008 14/1995 16/1997 16/1996 24/1991 13/1990	e 3.18 0.00 0.07 0.00 0.17 0.03 10.83 0.01 0.04 3.20 0.07 0.05 2.57 0.09 0.00 0.04 0.01 7.47 0.00	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica,	Samples           27           27           27           27           124           27           124           27	11.10 0.01 0.29 0.00 0.39 0.03 223.00 0.02 0.20 14.10 0.10 0.19 31.20 0.37 0.00 0.10 0.02 146.00 0.00 99.30	08/16/199 07/31/199 08/14/199 08/14/199 08/08/201 07/21/199 08/01/199 08/01/199 06/14/200 07/21/199 07/21/199 08/13/199 08/13/199 08/14/199 08/01/199 08/01/199 07/31/199 08/14/199	0.06           0.00           0.01           0.00           0.00           0.00           0.00           0.00           0.01           0.03           0.90           0.01           0.02           0.05           0.00           0.30           0.01           0.01           0.01           0.00           0.01           0.01           0.01           0.01           0.01           0.01           0.01           0.01           0.00           0.01           0.00           0.00           0.00	07/2 11/2 11/2 08/ 10/2 06/2 08/2 08/2 08/2 08/2 08/2 08/2 08/2 08	29/2009 27/2012 27/2012 14/1995 25/1990 21/1993 23/2010 16/1996 01/1997 30/2008 26/2001 30/2008 14/1995 16/1997 16/1996 24/1991 13/1990 04/2020	e 3.18 0.00 0.07 0.00 0.17 0.03 10.83 0.01 0.04 3.20 0.07 0.05 2.57 0.09 0.00 0.00 0.04 0.01 7.47 0.00 28.97	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica, Sodium,	Samples           27           27           27           27           124           27           124           27	11.10 0.01 0.29 0.00 0.39 0.03 223.00 0.02 0.20 14.10 0.10 0.19 31.20 0.37 0.00 0.10 0.02 146.00 0.00 99.30 1,110.0	08/16/199 07/31/199 08/14/199 08/14/199 08/08/201 07/21/199 08/01/199 08/01/199 06/14/200 07/21/199 07/21/199 08/13/199 08/13/199 08/14/199 08/01/199 08/01/199 08/01/199 08/01/199 08/14/199 08/14/199 08/14/201	0.06           0.00           0.01           0.00           0.00           0.00           0.00           0.00           0.00           0.01           0.03           0.90           0.01           0.02           0.05           0.00           0.30           0.01           0.01           0.01           0.00           0.01           0.01           0.01           0.01           0.01           0.01           0.01           0.00           0.01           0.01           1.00           0.00           6.90           124.00	07/2 11/2 11/2 08/ 10/2 06/2 08/2 08/2 08/2 08/2 08/2 08/2 08/2 08	29/2009 27/2012 27/2012 14/1995 25/1990 21/1993 23/2010 16/1996 01/1990 21/1992 16/1997 30/2008 26/2001 30/2008 14/1995 16/1997 16/1996 24/1991 13/1990 04/2020 18/2021	e 3.18 0.00 0.07 0.00 0.17 0.03 10.83 0.01 0.04 3.20 0.07 0.05 2.57 0.09 0.00 0.00 0.04 0.01 7.47 0.00 28.97 195.97	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica, Sodium, Strontium,	Samples           27           27           27           27           124           27           124           27	11.10 0.01 0.29 0.00 0.39 0.03 223.00 0.02 0.20 14.10 0.10 0.19 31.20 0.37 0.00 0.10 0.02 146.00 0.00 99.30 1,110.0 2.45	08/16/199 07/31/199 08/14/199 08/14/199 08/07/21/199 08/01/199 08/01/199 06/14/200 07/21/199 07/21/199 07/21/199 08/13/199 08/14/199 08/01/199 08/01/199 08/14/199 08/14/199 08/14/199 08/14/199	0.06           0.00           0.01           0.00           0.00           0.00           0.00           0.00           0.00           0.01           0.03           0.90           0.01           0.02           0.05           0.00           0.30           0.01           0.01           0.01           0.00           0.01           0.01           0.01           0.01           0.01           0.01           0.02	07/2 11/2 11/2 08/ 10/2 07/2 06/2 08/2 08/2 08/2 08/2 08/2 08/2 08/2 08	29/2009 27/2012 27/2012 14/1995 25/1990 21/1993 23/2010 16/1996 01/1990 21/1992 16/1997 30/2008 26/2001 30/2008 14/1995 16/1997 16/1996 24/1991 13/1990 04/2020 18/2021 24/1994	e 3.18 0.00 0.07 0.00 0.17 0.03 10.83 0.01 0.04 3.20 0.07 0.05 2.57 0.09 0.00 0.00 0.04 0.01 7.47 0.00 28.97 195.97 0.30	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Aluminum, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica, Sodium,	Samples           27           27           27           27           124           27           124           27	11.10 0.01 0.29 0.00 0.39 0.03 223.00 0.02 0.20 14.10 0.10 0.19 31.20 0.37 0.00 0.10 0.02 146.00 0.00 99.30 1,110.0	08/16/199 07/31/199 08/14/199 08/14/199 08/08/201 07/21/199 08/01/199 08/01/199 06/14/200 07/21/199 07/21/199 08/13/199 08/13/199 08/14/199 08/01/199 08/01/199 08/01/199 08/01/199 08/14/199 08/14/199 08/14/201	0.06           0.00           0.01           0.00           0.00           0.00           0.00           0.00           0.01           0.03           0.90           0.01           0.02           0.05           0.00           0.30           0.01           0.01           0.01           0.00           0.30           0.01           0.01           0.01           0.01           1.00           0.00           6.90           124.00           0.01	07/2 11/2 11/2 08/ 10/2 06/2 08/2 08/2 08/2 08/2 08/2 08/2 08/2 08	29/2009 27/2012 27/2012 14/1995 25/1990 21/1993 23/2010 16/1996 01/1990 21/1992 16/1997 30/2008 26/2001 30/2008 14/1995 16/1997 16/1996 24/1991 13/1990 04/2020 18/2021	e 3.18 0.00 0.07 0.00 0.17 0.03 10.83 0.01 0.04 3.20 0.07 0.05 2.57 0.09 0.00 0.00 0.04 0.01 7.47 0.00 28.97 195.97	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Table 11: MMC-IRI-1 Annual Perched Aquifer

DAUB & ASSOCIATES, INC. 20 3 The Contraction of the Cont



			1				•	1
Parameters	No. of	Hi	gh	Date	Low	Date	Averag	Units
Wet Chemistry	Samples	20-	7.00	06/20/200	2.00	12/19/100	<b>e</b>	m a /l
Bicarbonate as	62			06/30/200	2.00	12/18/199	183.97	mg/l
Carbonate as	62		1.00	12/18/199	0.00	06/14/200	75.51	mg/l
Total Alkalinity as	<u>62</u> 32		5.00	03/25/199	181.0	05/29/200	251.87	mg/l
Bromide			00	08/22/199	0.00	08/12/199	0.21	mg/l
Cation-Anion	59		.30	06/14/200		05/26/200	0.78	%
Sum of Anions	54		.77	06/16/199	8.43	12/19/199	9.91	meq/l
Sum of Cations	54		.25	06/16/199	7.90	05/26/200	10.12	meq/l
Chemical Oxygen Chloride	<u>29</u> 62		1.00	11/02/201	0.00 9.00	05/29/200	52.07	mg/l
Conductivity, Lab	62		0.00	<u>06/16/199</u> 06/16/199	<u>9.00</u> 795.0	12/19/199 08/12/199	20.73 974.71	mg/l
	62		90	09/16/199	0.00	06/30/199	0.29	µmho ma/l
Fluoride Hardness as	62		90 2.00	06/14/200	1.00	12/20/199	34.31	mg/l
								mg/l
Nitrate as N, Nitrate/Nitrite as	<u>33</u> 33		<u>.50</u> .50	05/29/200	0.00	08/12/199	0.97 0.86	mg/l
	33		.50	05/29/200 09/14/199	0.00	08/12/199 08/12/199	0.86	mg/l
Nitrite as N,	33		87			05/21/200		mg/l
Nitrogen,	33			06/23/199	0.08		0.27	mg/l
Nitrogen, Organic Nitrogen, Total	<u> </u>		<u>.00</u> .00	05/15/199 05/15/199	0.20	03/09/202	<u>5.10</u> 4.60	mg/l
pH, lab	62		.00 .90	06/28/199	2.40	03/09/202	9.20	mg/l
Phosphate, total	31			07/29/200		06/16/199 05/29/200		units
	33		5.00 87		0.06		5.63	mg/l
Phosphorus, total SAR in Water				06/18/199	0.02	05/29/200	0.20 22.06	mg/l
	53		.44	01/20/199	7.50	06/30/200		none
Sulfate	62		0.00	03/25/199	148.0	03/22/199	203.97	mg/l
Sulfide	32		60	03/09/202	0.05	06/14/200	0.56	mg/l
Total Dissolved	61		090	06/16/199	504	04/21/199	629	mg/l
Conductivity,	75		380	05/21/200	715	12/19/199	1,169	µmho
pH, Field	74 Tamparatur		.00 17	08/12/199	6.33	06/14/200	9.85	units (°C)
Water Level,	Temperatur 59	35 248.06	06/15/201	06/14/200 1 237.	9.70	11/01/200 11/09/202	<u>12</u> 240.82	Ft.
vvaler Lever,	- 59	240.00	00/15/20	1 237.	00	11/09/202	240.02	Γι.
Parameters	No. of						Averag	
Metals	Samples	High	Date	Lov	W	Date	e	Units
Aluminum,	32	10.00	08/22/199	9 0.0	4	05/29/200	1.09	mg/l
Arsenic,						03/23/200		IIIg/I
	32	0.01			0	05/26/200		ma/l
	32	0.01	06/18/199			05/26/200	0.00	mg/l
Barium, dissolved	32	0.27	05/21/200	0.0	1	05/26/200	0.00 0.04	mg/l
Beryllium,	32 32	0.27 0.01	05/21/200 08/22/199	0.0 0.0	1 1	05/26/200 08/22/199	0.00 0.04 0.01	mg/l mg/l
Beryllium, Boron, dissolved	32 32 62	0.27 0.01 0.11	05/21/200 08/22/199 11/21/200	0.0 0.0 0.0 0.0	1 1 2	05/26/200 08/22/199 08/22/199	0.00 0.04 0.01 0.07	mg/l mg/l mg/l
Beryllium, Boron, dissolved Cadmium,	32 32 62 32	0.27 0.01 0.11 0.01	05/21/200 08/22/199 11/21/200 08/22/199	0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0           0.0	1 1 2 0	05/26/200 08/22/199 08/22/199 03/22/201	0.00 0.04 0.01 0.07 0.00	mg/l mg/l mg/l mg/l
Beryllium, Boron, dissolved Cadmium, Calcium,	32 32 62 32 62	0.27 0.01 0.11 0.01 63.60	05/21/200 08/22/199 11/21/200 08/22/199 06/14/200	$\begin{array}{c ccc} 0 & 0.0 \\ \hline 0 & 1.0 \\ \hline \end{array}$	1 1 2 0 0	05/26/200 08/22/199 08/22/199 03/22/201 06/16/199	0.00 0.04 0.01 0.07 0.00 7.19	mg/l mg/l mg/l mg/l mg/l
Beryllium, Boron, dissolved Cadmium, Calcium, Chromium,	32 32 62 32 62 62 32	0.27 0.01 0.11 0.01 63.60 0.02	05/21/200 08/22/199 11/21/200 08/22/199 06/14/200 08/22/199	0         0.0           2         0.0           0         0.0           2         0.0           3         0.0           3         0.0           3         0.0           3         0.0           3         0.0           3         0.0	1 1 2 0 0 1	05/26/200 08/22/199 03/22/201 06/16/199 06/23/199	0.00 0.04 0.01 0.07 0.00 7.19 0.01	mg/l mg/l mg/l mg/l mg/l
Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved	32 32 62 32 62 32 32 32	0.27 0.01 0.11 63.60 0.02 0.04	05/21/200 08/22/199 11/21/200 08/22/199 06/14/200 08/22/199 06/25/201	0         0.0           2         0.0           0         0.0           2         0.0           2         0.0           3         0.0           4         0.0           5         0.0           6         0.0           7         1.0           8         0.0           1         0.0	1 2 0 0 1 1	05/26/200 08/22/199 03/22/201 06/16/199 06/23/199 06/23/199	0.00 0.04 0.01 0.07 0.00 7.19 0.01 0.02	mg/l mg/l mg/l mg/l mg/l mg/l
Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved	32 32 62 32 62 32 32 32 32 32	0.27 0.01 0.11 63.60 0.02 0.04 7.30	05/21/200 08/22/199 11/21/200 08/22/199 06/14/200 08/22/199 06/25/20 08/22/199	0         0.0           9         0.0           0         0.0           9         0.0           9         0.0           9         0.0           9         0.0           1         0.0           9         0.0	1 1 2 0 0 1 1 1 1	05/26/200 08/22/199 03/22/201 06/16/199 06/23/199 06/23/199 05/26/200	0.00 0.04 0.07 0.00 7.19 0.01 0.02 0.63	mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved	32 32 62 32 62 32 32 32 32 32 32	0.27 0.01 0.11 63.60 0.02 0.04 7.30 0.12	05/21/200 08/22/199 11/21/200 08/22/199 06/14/200 08/22/199 06/25/20 <sup>2</sup> 08/22/199 03/22/20 <sup>2</sup>	0         0.0           9         0.0           0         0.0           9         0.0           9         0.0           9         0.0           9         0.0           1         0.0           9         0.0           1         0.0           1         0.0	1 2 0 0 1 1 1 2	05/26/200 08/22/199 03/22/201 06/16/199 06/23/199 06/23/199 05/26/200 08/12/199	0.00 0.04 0.07 0.00 7.19 0.01 0.02 0.63 0.05	mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	32 32 62 32 62 32 32 32 32 32 32 32 32	0.27 0.01 0.11 63.60 0.02 0.04 7.30 0.12 0.06	05/21/200 08/22/199 11/21/200 08/22/199 06/14/200 08/22/199 06/25/20 08/22/199 03/22/20 10/03/20	0         0.0           2         0.0           2         0.0           2         0.0           2         0.0           2         0.0           2         0.0           3         0.0           3         0.0           4         0.0           1         0.0           1         0.0	1 2 0 0 1 1 1 2 2 2	05/26/200 08/22/199 03/22/201 06/16/199 06/23/199 06/23/199 05/26/200 08/12/199 05/26/200	0.00 0.04 0.07 0.00 7.19 0.01 0.02 0.63 0.05 0.03	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium,	32 32 62 32 62 32 32 32 32 32 32 32 62	0.27 0.01 0.11 63.60 0.02 0.04 7.30 0.12 0.06 9.10	05/21/200 08/22/199 11/21/200 08/22/199 06/14/200 08/22/199 06/25/20 08/22/199 03/22/20 10/03/20 06/30/200	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1 2 0 0 1 1 1 2 2 0	05/26/200 08/22/199 03/22/201 06/16/199 06/23/199 06/23/199 05/26/200 08/12/199 05/26/200 06/30/199	0.00 0.04 0.01 0.07 0.00 7.19 0.01 0.02 0.63 0.05 0.03 4.62	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese,	32 32 62 32 62 32 32 32 32 32 32 32 32 32 3	0.27 0.01 0.11 0.01 63.60 0.02 0.04 7.30 0.12 0.06 9.10 0.07	05/21/200 08/22/199 11/21/200 08/22/199 06/14/200 08/22/199 06/25/20 <sup>-1</sup> 08/22/199 03/22/20 <sup>-1</sup> 10/03/20 <sup>-1</sup> 06/30/200 08/22/199	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1 2 0 0 1 1 1 2 2 0 1	05/26/200 08/22/199 03/22/201 06/16/199 06/23/199 06/23/199 05/26/200 08/12/199 05/26/200 06/30/199 08/22/199	$\begin{array}{c} 0.00\\ 0.04\\ 0.01\\ 0.07\\ 0.00\\ 7.19\\ 0.01\\ 0.02\\ 0.63\\ 0.05\\ 0.03\\ 4.62\\ 0.02\\ \end{array}$	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury,	32 32 62 32 62 32 32 32 32 32 32 62 36 32	$\begin{array}{c} 0.27\\ 0.01\\ 0.11\\ 0.01\\ 63.60\\ 0.02\\ 0.04\\ 7.30\\ 0.12\\ 0.06\\ 9.10\\ 0.07\\ 0.00\\ \end{array}$	05/21/200 08/22/199 11/21/200 08/22/199 06/14/200 08/22/199 06/25/20 <sup>-1</sup> 08/22/199 03/22/20 <sup>-1</sup> 10/03/20 <sup>-1</sup> 06/30/200 08/22/199 08/22/199	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1 2 0 0 1 1 1 2 2 0 1 0	05/26/200 08/22/199 03/22/201 06/16/199 06/23/199 06/23/199 05/26/200 08/12/199 05/26/200 06/30/199 08/22/199	$\begin{array}{c} 0.00\\ 0.04\\ 0.01\\ 0.07\\ 0.00\\ 7.19\\ 0.01\\ 0.02\\ 0.63\\ 0.05\\ 0.03\\ 4.62\\ 0.02\\ 0.00\\ \end{array}$	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury, Molybdenum,	32 32 62 32 62 32 32 32 32 32 62 36 32 32 32 32 32 32 32 32 32 32	0.27 0.01 0.11 0.01 63.60 0.02 0.04 7.30 0.12 0.06 9.10 0.07 0.00 0.03	05/21/200 08/22/199 11/21/200 08/22/199 06/14/200 08/22/199 03/22/20 10/03/20 06/30/200 08/22/199 08/22/199 08/22/199 08/22/199	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1 2 0 0 1 1 1 2 2 0 1 0 1 0 1	05/26/200 08/22/199 08/22/199 03/22/201 06/16/199 06/23/199 06/23/199 05/26/200 08/12/199 05/26/200 06/30/199 08/22/199 08/22/199 06/18/199	0.00 0.04 0.01 0.07 0.00 7.19 0.01 0.02 0.63 0.05 0.03 4.62 0.02 0.00 0.02	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury, Molybdenum, Nickel, dissolved	32 32 62 32 62 32 32 32 32 62 36 32 32 32 32 32 32 32 32 32 32	0.27 0.01 0.11 63.60 0.02 0.04 7.30 0.12 0.06 9.10 0.07 0.00 0.03 0.04	05/21/200 08/22/199 11/21/200 08/22/199 06/14/200 08/22/199 03/22/20 10/03/20 06/30/200 08/22/199 08/22/199 08/22/199 08/22/199	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1 2 0 0 1 1 2 2 0 1 0 1 0 1 2 2 0 1 2 2 0 1 2 2 0 1 2 2 0 1 2 2 0 1 2 2 2 2 2 2 2 2 2 2 2 2 2	05/26/200 08/22/199 08/22/199 03/22/201 06/16/199 06/23/199 06/23/199 05/26/200 08/12/199 05/26/200 06/30/199 08/22/199 08/22/199 08/22/199	0.00 0.04 0.01 0.07 0.00 7.19 0.01 0.02 0.63 0.05 0.03 4.62 0.02 0.00 0.02 0.00 0.02 0.03	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury, Molybdenum, Nickel, dissolved Potassium,	32 32 62 32 62 32 32 32 32 62 36 32 32 32 32 62 32 32 62 32 62 32 62 32 62 32 62 32 62 62 62 62 62 62 62 62 62 6	0.27 0.01 0.11 63.60 0.02 0.04 7.30 0.12 0.06 9.10 0.07 0.00 0.03 0.04 22.00	05/21/200 08/22/199 11/21/200 08/22/199 06/14/200 08/22/199 08/22/199 03/22/20 10/03/20 06/30/200 08/22/199 08/22/199 08/22/199 06/14/200 07/29/200 12/18/199	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1 2 0 1 1 1 2 0 1 2 0 1 0 1 2 0 1 2 0 1 0 1 2 0 1 0 1 2 0 0 1 1 2 0 0 0 1 1 2 0 0 0 1 1 2 0 0 0 1 1 2 0 0 0 1 1 2 0 0 0 1 1 2 0 0 0 1 1 2 0 0 0 1 1 1 2 0 0 0 1 1 2 0 0 0 1 1 0 0 0 0 0 0 0 0 0 0 0 0 0	05/26/200 08/22/199 08/22/199 03/22/201 06/16/199 06/23/199 06/23/199 05/26/200 08/12/199 05/26/200 06/30/199 08/22/199 08/22/199 06/18/199 08/22/199	0.00 0.04 0.01 0.07 0.00 7.19 0.01 0.02 0.63 0.05 0.03 4.62 0.02 0.00 0.02 0.00 0.02 0.03 7.24	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury, Molybdenum, Nickel, dissolved Potassium, Selenium,	32 32 62 32 62 32 32 32 32 62 36 32 32 32 32 62 32 32 62 32 32 62 32 32 62 32 62 32 62 32 62 32 62 32 62 32 62 32 62 32 62 32 62 32 62 32 62 32 62 32 62 62 62 62 62 62 62 62 62 6	0.27 0.01 0.11 63.60 0.02 0.04 7.30 0.12 0.06 9.10 0.07 0.00 0.03 0.04 22.00 0.00	05/21/200 08/22/199 11/21/200 08/22/199 06/14/200 08/22/199 03/22/20 03/22/20 03/22/20 06/30/200 08/22/199 08/22/199 06/14/200 07/29/200 12/18/199 08/12/199	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1 2 0 1 1 1 2 0 1 2 0 1 2 0 1 2 0 1 2 0 0 1 2 0 0 1 0 0 1 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0	05/26/200 08/22/199 08/22/199 03/22/201 06/16/199 06/23/199 06/23/199 05/26/200 08/12/199 08/22/199 08/22/199 08/22/199 06/18/199 08/22/199	0.00 0.04 0.01 0.07 0.00 7.19 0.01 0.02 0.63 0.05 0.03 4.62 0.02 0.00 0.02 0.00 0.02 0.03 7.24 0.00	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury, Molybdenum, Nickel, dissolved Potassium, Selenium, Silica, dissolved	32 32 62 32 62 32 32 32 32 62 36 32 32 32 61 32 61 32 61	0.27 0.01 0.11 63.60 0.02 0.04 7.30 0.12 0.06 9.10 0.07 0.00 0.03 0.04 22.00 0.00 74.00	05/21/200 08/22/199 11/21/200 08/22/199 06/14/200 08/22/199 08/22/199 03/22/200 10/03/200 08/22/199 08/22/199 08/22/199 06/14/200 07/29/200 12/18/199 08/22/199	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1 2 0 1 1 1 2 0 1 2 0 1 2 0 1 2 0 0 1 2 0 0 1 2 0 0 1 2 0 0 0 0 0 0 0 0 0 0 0 0 0	05/26/200 08/22/199 08/22/199 03/22/201 06/16/199 06/23/199 05/26/200 08/12/199 05/26/200 06/30/199 08/22/199 08/22/199 08/22/199 06/18/199 08/22/199 06/25/201 08/12/199 03/21/201	0.00 0.04 0.01 0.07 0.00 7.19 0.01 0.02 0.63 0.05 0.03 4.62 0.02 0.00 0.02 0.00 0.02 0.03 7.24 0.00 18.18	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury, Molybdenum, Nickel, dissolved Potassium, Selenium, Silica, dissolved	32 32 62 32 62 32 32 32 32 62 36 32 32 62 36 32 32 61 32 61 61	0.27 0.01 0.11 63.60 0.02 0.04 7.30 0.12 0.06 9.10 0.07 0.00 0.03 0.04 22.00 0.00 74.00 336.00	05/21/200 08/22/199 11/21/200 08/22/199 06/14/200 08/22/199 06/25/207 08/22/199 03/22/207 10/03/207 06/30/200 08/22/199 08/22/199 06/14/200 07/29/200 12/18/199 08/12/199 08/22/199 08/22/199 08/12/199	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1         2         0         1         1         2         0         1         2         0         1         2         0         1         2         0         1         2         0 <td< td=""><td>05/26/200 08/22/199 08/22/199 03/22/201 06/16/199 06/23/199 06/23/199 05/26/200 08/12/199 08/22/199 08/22/199 08/22/199 08/22/199 06/18/199 08/22/199 06/25/201 08/12/199 03/21/201 05/26/200</td><td>0.00 0.04 0.01 0.07 0.00 7.19 0.01 0.02 0.63 0.05 0.03 4.62 0.02 0.00 0.02 0.03 7.24 0.00 18.18 208.28</td><td>mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l</td></td<>	05/26/200 08/22/199 08/22/199 03/22/201 06/16/199 06/23/199 06/23/199 05/26/200 08/12/199 08/22/199 08/22/199 08/22/199 08/22/199 06/18/199 08/22/199 06/25/201 08/12/199 03/21/201 05/26/200	0.00 0.04 0.01 0.07 0.00 7.19 0.01 0.02 0.63 0.05 0.03 4.62 0.02 0.00 0.02 0.03 7.24 0.00 18.18 208.28	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury, Molybdenum, Nickel, dissolved Potassium, Selenium, Silica, dissolved Sodium, Strontium,	32         32         62         32         62         32         32         32         32         32         32         32         32         32         32         32         32         32         32         32         32         32         32         32         61         32         61         61         61	0.27 0.01 0.11 0.01 63.60 0.02 0.04 7.30 0.12 0.06 9.10 0.07 0.00 0.03 0.04 22.00 0.00 74.00 336.00 1.30	05/21/200 08/22/199 11/21/200 08/22/199 06/14/200 08/22/199 06/25/207 08/22/199 03/22/207 10/03/207 06/30/200 08/22/199 06/14/200 07/29/200 12/18/199 08/12/199 08/22/199 08/12/199 08/22/199 06/16/199 06/30/200	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1         2         0         1         1         2         0         1         2         0         1         2         0         1         2         0         1         2         0 <td< td=""><td>05/26/200 08/22/199 08/22/199 03/22/201 06/16/199 06/23/199 05/26/200 08/12/199 05/26/200 06/30/199 08/22/199 08/22/199 08/22/199 08/22/199 06/25/201 08/12/199 03/21/201 05/26/200 06/16/199</td><td>0.00 0.04 0.01 0.07 0.00 7.19 0.01 0.02 0.63 0.05 0.03 4.62 0.02 0.00 0.02 0.03 7.24 0.00 18.18 208.28 0.49</td><td>mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l</td></td<>	05/26/200 08/22/199 08/22/199 03/22/201 06/16/199 06/23/199 05/26/200 08/12/199 05/26/200 06/30/199 08/22/199 08/22/199 08/22/199 08/22/199 06/25/201 08/12/199 03/21/201 05/26/200 06/16/199	0.00 0.04 0.01 0.07 0.00 7.19 0.01 0.02 0.63 0.05 0.03 4.62 0.02 0.00 0.02 0.03 7.24 0.00 18.18 208.28 0.49	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury, Molybdenum, Nickel, dissolved Potassium, Selenium, Silica, dissolved	32 32 62 32 62 32 32 32 32 62 36 32 32 62 36 32 32 61 32 61 61	0.27 0.01 0.11 63.60 0.02 0.04 7.30 0.12 0.06 9.10 0.07 0.00 0.03 0.04 22.00 0.00 74.00 336.00	05/21/200 08/22/199 11/21/200 08/22/199 06/14/200 08/22/199 06/25/207 08/22/199 03/22/207 10/03/207 06/30/200 08/22/199 08/22/199 06/14/200 07/29/200 12/18/199 08/12/199 08/22/199 08/22/199 08/12/199	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1         2         0         1         1         2         0         1         2         0         1         2         0         1         2         0         1         2         0 <td< td=""><td>05/26/200 08/22/199 08/22/199 03/22/201 06/16/199 06/23/199 06/23/199 05/26/200 08/12/199 08/22/199 08/22/199 08/22/199 08/22/199 06/18/199 08/22/199 06/25/201 08/12/199 03/21/201 05/26/200</td><td>0.00 0.04 0.01 0.07 0.00 7.19 0.01 0.02 0.63 0.05 0.03 4.62 0.02 0.00 0.02 0.03 7.24 0.00 18.18 208.28</td><td>mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l</td></td<>	05/26/200 08/22/199 08/22/199 03/22/201 06/16/199 06/23/199 06/23/199 05/26/200 08/12/199 08/22/199 08/22/199 08/22/199 08/22/199 06/18/199 08/22/199 06/25/201 08/12/199 03/21/201 05/26/200	0.00 0.04 0.01 0.07 0.00 7.19 0.01 0.02 0.63 0.05 0.03 4.62 0.02 0.00 0.02 0.03 7.24 0.00 18.18 208.28	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Table 12: MMC-IRI-5 Annual Perched Aquifer

DAUB & ASSOCIATES, INC. 2019 Jacob Contraction



Parameters	No. of	Lliab	Dete	Law	Dete	A	l lu:to
Wet Chemistry	Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3	5	497	06/03/2022	395	09/03/2021	449	mg/l
Carbonate as CaCO3	5	124	09/10/2021	39	06/03/2022	72	mg/l
Total Alkalinity as CaCO3	5	551	08/21/2021	479	09/03/2021	521	mg/l
Bromide	4	Ŭ	08/21/2021	U	06/03/2022	U	mg/l
Cation-Anion Balance	5	2.60	09/03/2021	-2.60	11/12/2021	0.48	%
Sum of Anions	5	20.00	08/21/2021	19.00	09/03/2021	19.80	meq/l
Sum of Cations	5	21.00	08/21/2021	19.00	11/12/2021	20.00	meg/l
Chemical Oxygen Demand	4	48.00	08/21/2021	20.00	09/03/2021	34.00	mg/l
Chloride	5	13	09/03/2021	7	08/21/2021	11	mg/l
Conductivity, Lab	5	1,690	09/10/2021	1,630	09/03/2021	1,664	µmhos
Fluoride	5	0.65	06/03/2022	0.65	06/03/2022	0.65	mg/l
Hardness as CaCO3	5	619.00	08/21/2021	470.00	11/12/2021	536.20	mg/l
Nitrate as N, dissolved	4	UH	08/21/2021	UH	06/03/2022	UH	mg/l
Nitrate/Nitrite as N,	4	UH	08/21/2021	UH	06/03/2022	UH	mg/l
Nitrite as N, dissolved	4	UH	08/21/2021	UH	06/03/2022	UH	mg/l
Nitrogen, Ammonia	4	0.43	09/10/2021	0.27	08/21/2021	0.38	mg/l
Nitrogen, Organic	4	0.55	09/10/2021	0.22	09/03/2021	0.38	mg/l
Nitrogen, Total Kjeldahl	4	0.98	09/10/2021	0.22	08/21/2021	0.60	mg/l
pH, lab	5	8.80	09/03/2021	8.40	11/12/2021	8.62	units
Phosphate, total	4	1.22	06/03/2022	0.45	08/21/2021	0.80	mg/l
Phosphorus, total	4	0.39	06/03/2022	0.45	08/21/2021	0.26	mg/l
SAR in Water	5	4	11/12/2021	3.20	08/21/2021	4	none
Sulfate	5	439	08/21/2021	407.00	09/10/2021	424	mg/l
Sulfide	4	439 UH	08/21/2021	<u>407.00</u> U	06/03/2022	<u>424</u> U	mg/l
Total Dissolved Solids	5	1,190	08/21/2021	1,120	09/03/2022	1,146	mg/l
Conductivity, Field		1,633	09/03/2021	1,460	06/06/2022	1,140	µmhos
nH Field	/	8 60	00/03/2021	7/8	06/06/2022	8 25	unite
pH, Field	4	8.60 16.30	09/03/2021	7.48	06/06/2022	8.25 15.20	
Temperature (°C), Field	4	16.30	09/10/2021	12.60	11/12/2021	15.20	(°C)
Temperature (°C), Field Water Level, Field	4 7	16.30 305.30	09/10/2021 03/14/2022	12.60 304.90	11/12/2021 11/08/2022	15.20 305.11	(°C) Ft.
Temperature (°C), Field Water Level, Field Parameters	4 7 No. of	16.30	09/10/2021	12.60	11/12/2021	15.20	(°C)
Temperature (°C), Field Water Level, Field Parameters Metals	4 7 No. of Samples	16.30 305.30 High	09/10/2021 03/14/2022 Date	12.60 304.90 <b>Low</b>	11/12/2021 11/08/2022 Date	15.20 305.11 Average	(°C) Ft. Units
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved	4 7 No. of Samples 4	<u>16.30</u> 305.30 High U	09/10/2021 03/14/2022 Date 08/21/2021	12.60 304.90 Low	11/12/2021 11/08/2022 Date 06/03/2022	15.20 305.11 <b>Average</b> U	(°C) Ft. Units mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	4 7 No. of Samples 4 4	16.30 305.30 High U 0.01	09/10/2021 03/14/2022 Date 08/21/2021 09/10/2021	12.60 304.90 Low U 0.00	11/12/2021 11/08/2022 Date 06/03/2022 08/21/2021	15.20 305.11 Average U 0.01	(°C) Ft. Units mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	4 7 <b>No. of</b> Samples 4 4 4	16.30 305.30 High U 0.01 0.04	09/10/2021 03/14/2022 Date 08/21/2021 09/10/2021 06/03/2022	12.60 304.90 Low U 0.00 0.01	11/12/2021 11/08/2022 Date 06/03/2022 08/21/2021 09/10/2021	15.20 305.11 Average U 0.01 0.02	(°C) Ft. Units mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	4 7 <b>No. of</b> <u>Samples</u> 4 4 4 4	16.30 305.30 High U 0.01 0.04 U	09/10/2021 03/14/2022 Date 08/21/2021 09/10/2021 06/03/2022 08/21/2021	12.60 304.90 Low U 0.00 0.01 U	11/12/2021 11/08/2022 Date 06/03/2022 08/21/2021 09/10/2021 06/03/2022	15.20 305.11 Average U 0.01 0.02 U	(°C) Ft. Units mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	4 7 <b>No. of</b> <u>Samples</u> 4 4 4 4 4 5	16.30 305.30 High U 0.01 0.04 U 0.12	09/10/2021 03/14/2022 Date 08/21/2021 09/10/2021 06/03/2022 08/21/2021 06/03/2022	12.60 304.90 Low U 0.00 0.01 U 0.09	11/12/2021 11/08/2022 Date 06/03/2022 08/21/2021 09/10/2021 06/03/2022 09/03/2021	15.20 305.11 <b>Average</b> U 0.01 0.02 U 0.10	(°C) Ft. Units mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	4 7 <b>No. of</b> <u>Samples</u> 4 4 4 4 4 5 4	16.30 305.30 High U 0.01 0.04 U 0.12 U	09/10/2021 03/14/2022 <b>Date</b> 08/21/2021 09/10/2021 06/03/2022 08/21/2021 06/03/2022 08/21/2021	12.60 304.90 Low U 0.00 0.01 U 0.09 U	11/12/2021 11/08/2022 Date 06/03/2022 08/21/2021 09/10/2021 06/03/2022 09/03/2021 06/03/2022	15.20 305.11 Average U 0.01 0.02 U 0.10 U	(°C) Ft. Units mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	4 7 <b>No. of</b> <b>Samples</b> 4 4 4 4 5 4 5 5	16.30 305.30 High U 0.01 0.04 U 0.12 U 74.80	09/10/2021 03/14/2022 <b>Date</b> 08/21/2021 09/10/2021 06/03/2022 08/21/2021 08/21/2021 08/21/2021	12.60 304.90 Low U 0.00 0.01 U 0.09 U 43.80	11/12/2021 11/08/2022 Date 06/03/2022 08/21/2021 09/10/2021 06/03/2022 09/03/2021 06/03/2022 11/12/2021	15.20 305.11 <b>Average</b> U 0.01 0.02 U 0.10 U 56.38	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	4 7 <b>No. of</b> <b>Samples</b> 4 4 4 4 5 4 5 4 5 4	16.30 305.30 High U 0.01 0.04 U 0.12 U 74.80 U	09/10/2021 03/14/2022 Date 08/21/2021 09/10/2021 06/03/2022 08/21/2021 08/21/2021 08/21/2021	12.60 304.90 Low U 0.00 0.01 U 0.09 U 43.80 U	11/12/2021 11/08/2022 Date 06/03/2022 08/21/2021 09/10/2021 06/03/2022 09/03/2022 11/12/2021 06/03/2022	15.20 305.11 Average U 0.01 0.02 U 0.10 U 56.38 U	(°C) Ft. <b>Units</b> mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	4 7 <b>No. of</b> <b>Samples</b> 4 4 4 4 5 4 5 4 5 4 4 4 4	16.30 305.30 High U 0.01 0.04 U 0.12 U 0.12 U 74.80 U U	09/10/2021 03/14/2022 Date 08/21/2021 09/10/2021 06/03/2022 08/21/2021 08/21/2021 08/21/2021 08/21/2021	12.60 304.90 Low U 0.00 0.01 U 0.09 U 43.80 U U	11/12/2021 11/08/2022 Date 06/03/2022 08/21/2021 09/10/2021 06/03/2022 09/03/2022 11/12/2021 06/03/2022 06/03/2022	15.20 305.11 Average U 0.01 0.02 U 0.10 U 56.38 U U U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	4 7 <b>No. of</b> <b>Samples</b> 4 4 4 4 5 4 5 4 5 4 5 4 4 4 4 4	16.30 305.30 High U 0.01 0.04 U 0.12 U 74.80 U U U 0.30	09/10/2021 03/14/2022 Date 08/21/2021 09/10/2021 06/03/2022 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021	12.60 304.90 Low U 0.00 0.01 U 0.09 U 43.80 U U U 0.13	11/12/2021 11/08/2022 Date 06/03/2022 08/21/2021 09/10/2021 06/03/2022 09/03/2021 06/03/2022 06/03/2022 06/03/2022	15.20 305.11 Average U 0.01 0.02 U 0.10 U 56.38 U U U 0.22	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	4 7 <b>No. of</b> <b>Samples</b> 4 4 4 4 5 4 5 4 5 4 4 4 4 4 4 4	16.30 305.30 High U 0.01 0.04 U 0.12 U 0.12 U 74.80 U U U 0.30 U	09/10/2021 03/14/2022 Date 08/21/2021 09/10/2021 06/03/2022 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 09/10/2021	12.60 304.90 Low U 0.00 0.01 U 0.09 U 43.80 U 43.80 U U 0.13 U	11/12/2021 11/08/2022 Date 06/03/2022 08/21/2021 09/10/2021 06/03/2022 09/03/2021 06/03/2022 06/03/2022 09/03/2021 06/03/2022	15.20 305.11 Average U 0.01 0.02 U 0.10 U 56.38 U U U 0.22 U U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	4 7 <b>No. of</b> <b>Samples</b> 4 4 4 4 5 4 5 4 5 4 5 4 4 4 4 4 4 4	16.30 305.30 High U 0.01 0.04 U 0.12 U 0.12 U 74.80 U U 0.30 U 0.30 U 0.12	09/10/2021 03/14/2022 Date 08/21/2021 09/10/2021 06/03/2022 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 09/10/2021 08/21/2021	12.60 304.90 Low U 0.00 0.01 U 0.09 U 43.80 U 43.80 U U 0.13 U 0.08	11/12/2021 11/08/2022 Date 06/03/2022 08/21/2021 09/10/2021 06/03/2022 09/03/2021 06/03/2022 06/03/2022 09/03/2021 06/03/2022 09/03/2021 06/03/2022	15.20 305.11 Average U 0.01 0.02 U 0.10 U 56.38 U U 56.38 U U 0.22 U 0.22 U 0.11	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved	4 7 <b>No. of</b> <b>Samples</b> 4 4 4 4 5 5 4 5 4 4 4 4 4 4 4 4 5 5	16.30 305.30 High U 0.01 0.04 U 0.12 U 0.12 U 74.80 U U 0.30 U 0.30 U 0.12 105.00	09/10/2021 03/14/2022 Date 08/21/2021 09/10/2021 06/03/2022 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021	12.60 304.90 Low U 0.00 0.01 U 0.09 U 43.80 U 43.80 U U 0.13 U 0.08 87.60	11/12/2021 11/08/2022 Date 06/03/2022 08/21/2021 09/10/2021 06/03/2022 09/03/2021 06/03/2022 06/03/2022 06/03/2022 09/03/2021 06/03/2022 09/03/2021 06/03/2022 08/21/2021	15.20 305.11 Average U 0.01 0.02 U 0.10 U 56.38 U U 56.38 U U 0.22 U 0.22 U 0.11 96.00	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved	4 7 <b>No. of</b> <b>Samples</b> 4 4 4 4 5 5 4 4 4 4 4 4 4 4 4 4 5 4 4 4 5 4	16.30 305.30 High U 0.01 0.04 U 0.12 U 0.12 U 0.30 U 0.30 U 0.12 105.00 0.21	09/10/2021 03/14/2022 Date 08/21/2021 09/10/2021 06/03/2022 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021	12.60 304.90 Low U 0.00 0.01 U 0.09 U 43.80 U 43.80 U U 0.13 U 0.13 U 0.08 87.60 0.02	11/12/2021 11/08/2022 Date 06/03/2022 08/21/2021 09/10/2021 06/03/2022 09/03/2021 06/03/2022 06/03/2022 09/03/2021 06/03/2022 08/21/2021 11/12/2021 06/03/2022	15.20 305.11 Average U 0.01 0.02 U 0.10 U 56.38 U U 0.22 U 0.22 U 0.11 96.00 0.09	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved	4 7 <b>No. of</b> <b>Samples</b> 4 4 4 4 5 5 4 4 4 4 4 4 4 4 4 5 4	16.30 305.30 High U 0.01 0.04 U 0.12 U 74.80 U U 0.12 U 0.30 U 0.30 U 0.12 105.00 0.21 U	09/10/2021 03/14/2022 Date 08/21/2021 09/10/2021 06/03/2022 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021	12.60 304.90 Low U 0.00 0.01 U 0.09 U 43.80 U 43.80 U U 0.13 U 0.13 U 0.08 87.60 0.02 U	11/12/2021 11/08/2022 08/21/2021 09/10/2021 09/10/2021 06/03/2022 09/03/2021 06/03/2022 06/03/2022 09/03/2021 06/03/2022 08/21/2021 11/12/2021 06/03/2022 06/03/2022 06/03/2022	15.20 305.11 Average U 0.01 0.02 U 0.10 U 56.38 U U 0.22 U 0.22 U 0.11 96.00 0.09 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved	4 7 <b>No. of</b> <b>Samples</b> 4 4 4 4 5 5 4 4 4 4 4 4 4 4 5 4 4 4 4	16.30 305.30 High U 0.01 0.04 U 0.12 U 0.12 U 0.30 U 0.30 U 0.12 105.00 0.21 U 0.03	09/10/2021 03/14/2022 Date 08/21/2021 09/10/2021 06/03/2022 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021	12.60 304.90 Low U 0.00 0.01 U 0.09 U 43.80 U 43.80 U U 0.13 U 0.13 U 0.08 87.60 0.02 U 0.02	11/12/2021 11/08/2022 08/21/2021 09/10/2021 09/10/2021 06/03/2022 09/03/2022 09/03/2022 06/03/2022 06/03/2022 08/21/2021 11/12/2021 06/03/2022 06/03/2022 06/03/2022 06/03/2022	15.20 305.11 Average U 0.01 0.02 U 0.10 U 56.38 U U 0.22 U 0.11 96.00 0.09 U 0.02	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved Nickel, dissolved	4 7 <b>No. of</b> <b>Samples</b> 4 4 4 4 5 5 4 4 4 4 4 4 4 5 4 4 4 4 4	16.30 305.30 High U 0.01 0.04 U 0.12 U 0.12 U 0.30 U 0.30 U 0.12 105.00 0.21 U 0.03 U 0.03 U	09/10/2021 03/14/2022 Date 08/21/2021 09/10/2021 06/03/2022 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021	12.60 304.90 Low U 0.00 0.01 U 0.09 U 43.80 U U 43.80 U U 0.13 U 0.13 U 0.13 U 0.08 87.60 0.02 U U 0.02 U	11/12/2021 11/08/2022 08/21/2021 09/10/2021 09/10/2021 06/03/2022 09/03/2022 11/12/2021 06/03/2022 09/03/2022 09/03/2021 06/03/2022 08/21/2021 11/12/2021 06/03/2022 06/03/2022 09/10/2021 06/03/2022	15.20 305.11 Average U 0.01 0.02 U 0.10 U 56.38 U U 0.22 U 0.22 U 0.11 96.00 0.09 U 0.02 U 0.02 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved	4 7 <b>No. of</b> <b>Samples</b> 4 4 4 5 5 4 4 4 4 4 4 4 4 4 5 4 4 4 4	16.30           305.30           High           U           0.01           0.04           U           0.12           U           74.80           U           0.30           U           0.30           U           0.12           105.00           0.21           U           0.03           U           105.00           0.21           U           0.03           U	09/10/2021 03/14/2022 08/21/2021 09/10/2021 06/03/2022 08/21/2021 06/03/2022 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021	12.60 304.90 U U 0.00 0.01 U 0.09 U 43.80 U U 43.80 U U 0.13 U 0.13 U 0.08 87.60 0.02 U 0.02 U 0.02 U U 0.02 U U 2.20	11/12/2021 11/08/2022 08/21/2021 09/10/2021 06/03/2022 09/03/2022 09/03/2021 06/03/2022 06/03/2022 06/03/2022 08/21/2021 11/12/2021 06/03/2022 06/03/2022 06/03/2022 06/03/2022 06/03/2022 09/10/2021 06/03/2022	15.20 305.11 Average U 0.01 0.02 U 0.10 U 56.38 U U 0.22 U 0.11 96.00 0.09 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	4 7 <b>No. of</b> <b>Samples</b> 4 4 4 5 5 4 4 4 4 4 4 4 4 4 4 4 4 4 4	16.30           305.30           High           U           0.01           0.04           U           0.12           U           74.80           U           0.30           U           0.5.00           0.21           U           0.03           U           0.03           U           0.03           0           0.03	09/10/2021 03/14/2022 08/21/2021 09/10/2021 06/03/2022 08/21/2021 06/03/2022 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 09/03/2021	12.60 304.90 U 0.00 0.01 U 0.09 U 43.80 U 43.80 U 43.80 U U 0.13 U 0.08 87.60 0.02 U 0.02 U 0.02 U 0.02 U 2.20 0.00	11/12/2021 11/08/2022 08/21/2021 09/10/2021 06/03/2022 09/03/2021 06/03/2022 09/03/2021 06/03/2022 09/03/2021 06/03/2022 09/03/2021 06/03/2022 08/21/2021 06/03/2022 09/10/2021 06/03/2022	15.20 305.11 Average U 0.01 0.02 U 0.10 U 56.38 U U 0.22 U 0.11 96.00 0.09 U 0.02 U 0.02 U 0.02 U 0.02 0.00	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	4 7 <b>No. of</b> <b>Samples</b> 4 4 4 4 5 5 4 4 4 4 4 4 4 4 4 4 4 4 4	16.30           305.30           High           U           0.01           0.04           U           0.12           U           0.30           U           0.12           105.00           0.21           U           0.03           U           0.5.00           0.21           U           0.03           0.03           0.03           0.03           0.00           32.50 <td>09/10/2021 03/14/2022 08/21/2021 09/10/2021 06/03/2022 08/21/2021 06/03/2022 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 09/03/2021 09/03/2021 09/03/2021 09/03/2021 09/03/2021</td> <td>12.60 304.90 U 0.00 0.01 U 0.09 U 43.80 U 43.80 U 43.80 U U 0.08 87.60 0.02 U 0.02 0.02</td> <td>11/12/2021 11/08/2022 08/21/2021 09/10/2021 06/03/2022 09/03/2021 06/03/2022 09/03/2021 06/03/2022 09/03/2021 06/03/2022 08/21/2021 06/03/2022 09/10/2021 06/03/2022 09/10/2021 06/03/2022 09/10/2021 06/03/2022</td> <td>15.20 305.11 Average U 0.01 0.02 U 0.10 U 56.38 U U 56.38 U U 0.22 U 0.11 96.00 0.09 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 0.02</td> <td>(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l</td>	09/10/2021 03/14/2022 08/21/2021 09/10/2021 06/03/2022 08/21/2021 06/03/2022 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 09/03/2021 09/03/2021 09/03/2021 09/03/2021 09/03/2021	12.60 304.90 U 0.00 0.01 U 0.09 U 43.80 U 43.80 U 43.80 U U 0.08 87.60 0.02 U 0.02 0.02	11/12/2021 11/08/2022 08/21/2021 09/10/2021 06/03/2022 09/03/2021 06/03/2022 09/03/2021 06/03/2022 09/03/2021 06/03/2022 08/21/2021 06/03/2022 09/10/2021 06/03/2022 09/10/2021 06/03/2022 09/10/2021 06/03/2022	15.20 305.11 Average U 0.01 0.02 U 0.10 U 56.38 U U 56.38 U U 0.22 U 0.11 96.00 0.09 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 0.02	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Selenium, dissolved Selenium, dissolved	4 7 No. of Samples 4 4 4 4 5 4 4 4 4 4 4 4 4 4 4 4 4 4 4	16.30           305.30           High           U           0.01           0.04           U           0.12           U           74.80           U           0.30           U           0.30           U           0.30           U           0.30           U           0.30           U           0.30           U           0.12           105.00           0.21           U           0.03           U           0.12           105.00           0.21           U           0.03           U           15.10           0.00           32.50           210	09/10/2021 03/14/2022 08/21/2021 09/10/2021 06/03/2022 08/21/2021 06/03/2022 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 09/03/2021 09/03/2021 09/03/2021 09/03/2021 09/03/2021	12.60 304.90 U U 0.00 0.01 U 0.09 U 43.80 U 43.80 U U 43.80 U U 0.13 U 0.13 U 0.08 87.60 0.02 U 0.02 U 0.02 U 2.20 0.00 21.90 183	11/12/2021 11/08/2022 08/21/2021 09/10/2021 09/10/2021 06/03/2022 09/03/2022 09/03/2021 06/03/2022 09/03/2022 09/03/2021 06/03/2022 08/21/2021 06/03/2022 09/10/2021 06/03/2022 09/10/2021 06/03/2022 09/10/2021 08/21/2021	15.20 305.11 Average U 0.01 0.02 U 0.10 U 56.38 U U 0.22 U 0.11 96.00 0.09 U 0.02 U 0.02 U 0.02 U 9.62 0.00 26.44 199	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Selenium, dissolved Selenium, dissolved Solica, dissolved Solica, dissolved	4 7 <b>No. of</b> <b>Samples</b> 4 4 4 5 5 4 4 4 4 4 4 4 4 4 4 4 4 4 4	16.30           305.30           High           U           0.01           0.04           U           0.12           U           74.80           U           0.30           U           0.30           U           0.30           U           0.30           U           0.30           U           0.12           105.00           0.21           U           0.03           U           15.10           0.00           32.50           210           3.07	09/10/2021 03/14/2022 08/21/2021 09/10/2021 06/03/2022 08/21/2021 06/03/2022 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 09/03/2021 09/03/2021 09/03/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021	12.60 304.90 U U 0.00 0.01 U 0.09 U 43.80 U 43.80 U U 43.80 U U 0.09 U 43.80 U U 0.09 U 43.80 U U 0.09 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.03 U 0.02 U 0.02 U 0.03 U 0.02 U 0.03 U 0.02 U 0.02 U 0.02 U 0.03 U 0.02 U 0.02 U 0.03 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.03 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.03 U 0.02 U 0 U 0.02 U 0.02 U 0 U 0 U 0 U 0 U 0 U 0 U 0 U 0 U 0 U	11/12/2021 11/08/2022 08/21/2021 09/10/2021 06/03/2022 09/03/2022 09/03/2021 06/03/2022 11/12/2021 06/03/2022 09/03/2021 06/03/2022 08/21/2021 06/03/2022 09/10/2021 06/03/2022 09/10/2021 06/03/2022 08/21/2021 08/21/2021 08/21/2021	15.20 305.11 Average U 0.01 0.02 U 0.10 U 56.38 U U 0.22 U 0.11 96.00 0.09 U 0.02 U 0.02 U 0.02 U 9.62 0.00 26.44 199 2.50	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Selenium, dissolved Selenium, dissolved	4 7 No. of Samples 4 4 4 4 5 4 4 4 4 4 4 4 4 4 4 4 4 4 4	16.30           305.30           High           U           0.01           0.04           U           0.12           U           74.80           U           0.30           U           0.30           U           0.30           U           0.30           U           0.30           U           0.30           U           0.12           105.00           0.21           U           0.03           U           0.12           105.00           0.21           U           0.03           U           15.10           0.00           32.50           210	09/10/2021 03/14/2022 08/21/2021 09/10/2021 06/03/2022 08/21/2021 06/03/2022 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 08/21/2021 09/03/2021 09/03/2021 09/03/2021 09/03/2021 09/03/2021	12.60 304.90 U U 0.00 0.01 U 0.09 U 43.80 U 43.80 U U 43.80 U U 0.13 U 0.13 U 0.08 87.60 0.02 U 0.02 U 0.02 U 2.20 0.00 21.90 183	11/12/2021 11/08/2022 08/21/2021 09/10/2021 09/10/2021 06/03/2022 09/03/2022 09/03/2021 06/03/2022 09/03/2022 09/03/2021 06/03/2022 08/21/2021 06/03/2022 09/10/2021 06/03/2022 09/10/2021 06/03/2022 09/10/2021 08/21/2021	15.20 305.11 Average U 0.01 0.02 U 0.10 U 56.38 U U 0.22 U 0.11 96.00 0.09 U 0.02 U 0.02 U 0.02 U 9.62 0.00 26.44 199	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Table 13: PA-1 Annual Perched Aquifer

DAUB & ASSOCIATES, INC. 201 3 Frank Contraction of the State



Deremetere	No. of						
Parameters Wet Chemistry	Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3	191	903.00	12/12/2008	41.00	01/30/1997	516.86	mg/l
Carbonate as CaCO3	191	566.00	01/30/1997	8.00	11/28/1990	90.84	mg/l
Total Alkalinity as CaCO3	191	926.00	12/12/2008	160.00	10/25/1990	606.05	mg/l
Bromide	27	3.00	06/26/1990	0.05	07/01/1997	0.44	mg/l
Cation-Anion Balance	182	63.40	04/14/2005	-28.80	08/02/2006	0.47	%
Sum of Anions	165	20.10	12/12/2008	11.66	11/28/1990	14.14	meq/l
Sum of Cations	165	67.50	04/14/2005	7.80	08/02/2006	14.40	meq/l
Chemical Oxygen Demand	24	220.00	09/22/2010	10.00	08/02/2006	80.23	mg/l
Chloride	190	118.00	10/22/1989	2.00	04/24/1991	19.25	mg/l
Conductivity, Lab	188	1,760.00	12/12/2008	1,000.00	05/20/1993	1,257.55	µmhos
Fluoride	191	30.00	12/19/1991	1.90	06/26/1991	21.39	mg/l
Hardness as CaCO3	185	375.00	05/21/2018	0.40	10/25/1990	11.11	mg/l
Nitrate as N, dissolved	28	5.76	08/10/2008	0.02	07/18/1995	0.53	mg/l
Nitrate/Nitrite as N,	28	6.26	08/10/2008	0.02	07/18/1995	0.56	mg/l
Nitrite as N, dissolved	28	0.50	08/10/2008	0.01	03/30/1990	0.13	mg/l
Nitrogen, Ammonia	26	3.77	08/10/2008	0.54	06/15/1992	1.30	mg/l
Nitrogen, Organic	26	14.60	09/27/1990	0.10	06/15/1992	4.37	mg/l
Nitrogen, Total Kjeldahl	26	15.40	09/27/1990	0.60	06/15/1992	5.49	mg/l
pH, lab	187	9.70	12/20/1994	8.00	07/18/1995	8.92	units
Phosphate, total	22	155.00	06/25/2007	0.06	07/02/1998	10.79	mg/l
Phosphorus, total	27	0.46	06/26/1990	0.01	08/17/1993	0.08	mg/l
SAR in Water	148	345.00	04/14/2005	0.21	05/21/2018	56.77	none
Sulfate	191 23	445.00 2.40	06/26/1990 07/24/2002	2.49	05/21/2018 07/15/2004	40.76	mg/l
Sulfide Total Dissolved Solids	191	2,040.00	04/14/2002	0.02 494.00	10/25/1990	0.45 783.76	mg/l
Conductivity, Field	237	1,980.00	12/12/2008	620.00	03/16/1994	1,222.62	mg/l µmhos
pH, Field	237	10.00	08/22/1991	6.80	03/10/2015	9.08	units
Temperature (°C), Field	117	17.40	07/01/2002	8.10	02/08/2021	12.26	(°C)
	117	17.40	01/01/2002	0.10		12.20	
	103		06/25/2014	463 95		496 96	
Water Level, Field	103	545.20	06/25/2014	463.95	04/01/2003	496.96	Ft.
Water Level, Field		545.20	1		04/01/2003		Ft.
	No. of		06/25/2014 Date	463.95		496.96 Average	
Water Level, Field Parameters Metals		545.20	1		04/01/2003		Ft.
Water Level, Field Parameters	No. of Samples	545.20 High	Date 10/22/1989 06/26/1991	Low	04/01/2003 Date	Average	Ft. Units
Water Level, Field Parameters Metals Aluminum, dissolved	No. of Samples	545.20 High 0.70	Date 10/22/1989 06/26/1991 07/15/2004	<b>Low</b>	04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006	Average	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	No. of Samples 26 26	545.20 High 0.70 0.04	Date 10/22/1989 06/26/1991	Low 0.03 0.003	04/01/2003 Date 07/01/1997 06/15/1992	Average 0.12 0.01	Ft. Units mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	No. of Samples 26 26 26 26 26 26 184	545.20 High 0.70 0.04 0.23	Date           10/22/1989           06/26/1991           07/15/2004           06/26/1990           04/14/2005	Low 0.03 0.003 0.01	04/01/2003 Date 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006	Average 0.12 0.01 0.04	Ft. Units mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	No. of Samples 26 26 26 26 26 184 26	545.20 High 0.70 0.04 0.23 0.01 1.48 0.01	Date           10/22/1989           06/26/1991           07/15/2004           06/26/1990           04/14/2005           06/26/1990	Low 0.03 0.003 0.01 0.01 0.19 0.01	04/01/2003 Date 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990	Average 0.12 0.01 0.04 0.01 0.37 0.01	Ft. Units mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	No. of Samples 26 26 26 26 26 184 26 183	545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00	Date           10/22/1989           06/26/1991           07/15/2004           06/26/1990           04/14/2005           06/26/1990           05/21/2018	Low 0.03 0.003 0.01 0.01 0.19 0.01 0.30	04/01/2003 Date 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004	Average 0.12 0.01 0.04 0.01 0.37 0.01 2.32	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	No. of Samples 26 26 26 26 184 26 183 26	545.20 High 0.70 0.04 0.23 0.01 1.48 0.01 141.00 0.07	Date           10/22/1989           06/26/1991           07/15/2004           06/26/1990           04/14/2005           06/26/1990           05/21/2018           07/30/2003	Low 0.03 0.003 0.01 0.01 0.19 0.01 0.30 0.01	04/01/2003 Date 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004 06/26/1990	Average 0.12 0.01 0.04 0.01 0.37 0.01 2.32 0.04	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	No. of Samples 26 26 26 26 26 184 26 183 26 26 26	545.20           High           0.70           0.04           0.23           0.01           1.48           0.01           141.00           0.07           0.01	Date           10/22/1989           06/26/1991           07/15/2004           06/26/1990           04/14/2005           06/26/1990           05/21/2018           07/30/2003           06/26/1990	Low 0.03 0.003 0.01 0.01 0.19 0.01 0.30 0.01 0.01	04/01/2003 Date 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990	Average 0.12 0.01 0.04 0.01 0.37 0.01 2.32 0.04 0.01	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	No. of Samples 26 26 26 26 26 184 26 183 26 26 26 26 26	545.20           High           0.70           0.04           0.23           0.01           1.48           0.01           141.00           0.07           0.01	Date           10/22/1989           06/26/1991           07/15/2004           06/26/1990           04/14/2005           06/26/1990           05/21/2018           07/30/2003           06/26/1990           10/22/1989	Low 0.03 0.003 0.01 0.01 0.19 0.01 0.30 0.01 0.01 0.01	04/01/2003 Date 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990	Average 0.12 0.01 0.04 0.01 0.37 0.01 2.32 0.04 0.01 0.13	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	No. of Samples 26 26 26 26 184 26 183 26 26 26 26 26 26 26	545.20           High           0.70           0.04           0.23           0.01           1.48           0.01           141.00           0.07           0.01           0.80           0.05	Date           10/22/1989           06/26/1991           07/15/2004           06/26/1990           04/14/2005           06/26/1990           05/21/2018           07/30/2003           06/26/1990           10/22/1989           10/22/1989	Low 0.03 0.003 0.01 0.01 0.19 0.01 0.30 0.01 0.01 0.01 0.01 0.02	04/01/2003 Date 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 04/27/2004 06/26/1990 06/26/1990 07/18/1995 06/26/1990	Average 0.12 0.01 0.04 0.01 0.37 0.01 2.32 0.04 0.01 0.13 0.03	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	No. of Samples 26 26 26 26 184 26 183 26 26 26 26 26 26 26 26 26	545.20           High           0.70           0.04           0.23           0.01           1.48           0.01           141.00           0.07           0.01           0.80           0.05           0.13	Date           10/22/1989           06/26/1991           07/15/2004           06/26/1990           04/14/2005           06/26/1990           05/21/2018           07/30/2003           06/26/1990           10/22/1989           10/22/1989           07/15/2004	Low 0.03 0.003 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.02 0.02	04/01/2003 Date 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 07/18/1995 06/26/1990 06/26/1990	Average 0.12 0.01 0.04 0.01 0.37 0.01 2.32 0.04 0.01 0.13 0.03 0.05	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	No. of Samples 26 26 26 26 184 26 183 26 26 26 26 26 26 26 26 26 26 183	545.20           High           0.70           0.04           0.23           0.01           1.48           0.01           141.00           0.07           0.01           0.80           0.05           0.13           9.10	Date           10/22/1989           06/26/1991           07/15/2004           06/26/1990           04/14/2005           06/26/1990           05/21/2018           07/30/2003           06/26/1990           10/22/1989           10/22/1989           07/15/2004           12/12/2008	Low 0.03 0.003 0.01 0.01 0.19 0.01 0.01 0.01 0.01 0.01 0.02 0.02 0.20	04/01/2003 Date 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990	Average 0.12 0.01 0.04 0.01 0.37 0.01 2.32 0.04 0.01 0.13 0.03 0.05 1.25	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved	No. of Samples 26 26 26 26 184 26 183 26 26 26 26 26 26 26 26 26 26 26 26 26	545.20           High           0.70           0.04           0.23           0.01           1.48           0.01           141.00           0.07           0.01           1.48           0.01           1.41.00           0.07           0.01           0.80           0.05           0.13           9.10           0.14	Date           10/22/1989           06/26/1991           07/15/2004           06/26/1990           04/14/2005           06/26/1990           05/21/2018           07/30/2003           06/26/1990           10/22/1989           10/22/1989           07/15/2004           12/12/2008           07/30/2003	Low 0.03 0.003 0.01 0.01 0.19 0.01 0.01 0.01 0.01 0.01 0.02 0.02 0.20 0.01	04/01/2003 Date 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 04/27/2004 06/26/1990	Average 0.12 0.01 0.04 0.01 0.37 0.01 2.32 0.04 0.01 0.13 0.03 0.05 1.25 0.06	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved	No. of Samples 26 26 26 26 184 26 183 26 26 26 26 26 26 26 26 26 26 26 26 26	545.20           High           0.70           0.04           0.23           0.01           1.48           0.01           141.00           0.07           0.01           1.48           0.01           1.41.00           0.07           0.01           0.80           0.05           0.13           9.10           0.14           0.0001	Date           10/22/1989           06/26/1991           07/15/2004           06/26/1990           04/14/2005           06/26/1990           05/21/2018           07/30/2003           06/26/1990           10/22/1989           10/22/1989           07/15/2004           12/12/2008           07/30/2003           06/15/1992	Low 0.03 0.003 0.01 0.01 0.19 0.01 0.01 0.01 0.01 0.01 0.02 0.02 0.20 0.01 0.01 0.02 0.02 0.02 0.00 0.01	04/01/2003 Date 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 04/27/2004 06/26/1990 06/26/1990	Average 0.12 0.01 0.04 0.01 0.37 0.01 2.32 0.04 0.01 0.13 0.03 0.05 1.25 0.06 0.0004	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved	No. of Samples 26 26 26 26 184 26 183 26 26 26 26 26 26 26 26 26 26 26 26 26	545.20           High           0.70           0.04           0.23           0.01           1.48           0.01           141.00           0.07           0.01           1.48           0.01           0.05           0.13           9.10           0.14           0.0001           0.13	Date           10/22/1989           06/26/1991           07/15/2004           06/26/1990           04/14/2005           06/26/1990           05/21/2018           07/30/2003           06/26/1990           10/22/1989           10/22/1989           07/15/2004           12/12/2008           07/30/2003           06/15/1992           10/22/1989	Low 0.03 0.003 0.01 0.01 0.19 0.01 0.01 0.01 0.01 0.02 0.02 0.02 0.20 0.01 0.0006 0.01	04/01/2003 Date 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990	Average 0.12 0.01 0.04 0.01 0.37 0.01 2.32 0.04 0.01 0.13 0.03 0.05 1.25 0.06 0.0004 0.05	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved Nickel, dissolved	No. of Samples 26 26 26 26 184 26 183 26 26 26 26 26 26 26 26 26 26 26 26 26	545.20           High           0.70           0.04           0.23           0.01           1.48           0.01           141.00           0.07           0.01           141.00           0.07           0.01           0.80           0.05           0.13           9.10           0.14           0.0001           0.13           0.52	Date           10/22/1989           06/26/1991           07/15/2004           06/26/1990           04/14/2005           06/26/1990           05/21/2018           07/30/2003           06/26/1990           10/22/1989           10/22/1989           07/15/2004           12/12/2008           07/30/2003           06/15/1992           10/22/1989           07/30/2003           06/15/1992           10/22/1989           07/30/2003	Low 0.03 0.003 0.01 0.01 0.19 0.01 0.01 0.01 0.01 0.02 0.02 0.20 0.01 0.0006 0.01 0.02	04/01/2003 Date 07/01/1997 06/15/1992 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990	Average 0.12 0.01 0.04 0.01 0.37 0.01 2.32 0.04 0.01 0.13 0.03 0.05 1.25 0.06 0.0004 0.05 0.19	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved	No. of Samples 26 26 26 26 184 26 183 26 26 26 26 26 26 26 26 26 26 26 26 26	545.20           High           0.70           0.04           0.23           0.01           1.48           0.01           141.00           0.07           0.01           141.00           0.07           0.01           0.80           0.05           0.13           9.10           0.14           0.0001           0.13           0.52           12.50	Date           10/22/1989           06/26/1991           07/15/2004           06/26/1990           04/14/2005           06/26/1990           05/21/2018           07/30/2003           06/26/1990           10/22/1989           10/22/1989           07/15/2004           12/12/2008           07/30/2003           06/15/1992           10/22/1989           07/30/2003           06/15/1992           10/22/1989           07/30/2003           06/15/1992           10/22/1989           07/30/2003           05/21/2018	Low 0.03 0.003 0.01 0.01 0.19 0.01 0.01 0.01 0.01 0.02 0.02 0.20 0.20 0.01 0.006 0.01 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.01 0.02 0.01 0.02 0.050	04/01/2003 Date 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1980 06/26/2020 06/26/2020 06/26/2020 06/26/2020 06/26/2020 06/26/2020 06/26/2020 06/26/2020 06/26/2020 06/26/2020 06/26/2020 06/26/2020 06/26/2020 06/26/2020 06/26/2020 06/26/2020 06/26/200 06/26/200 06/26/200 06/26/200 0000	Average 0.12 0.01 0.04 0.01 0.37 0.01 2.32 0.04 0.01 0.13 0.03 0.05 1.25 0.06 0.0004 0.05 0.19 1.34	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	No. of Samples 26 26 26 26 184 26 183 26 26 26 26 26 26 26 26 26 26 26 26 26	545.20           High           0.70           0.04           0.23           0.01           1.48           0.01           141.00           0.07           0.01           141.00           0.07           0.01           0.80           0.05           0.13           9.10           0.14           0.0001           0.13           0.52           12.50           0.01	Date           10/22/1989           06/26/1991           07/15/2004           06/26/1990           04/14/2005           06/26/1990           05/21/2018           07/30/2003           06/26/1990           05/21/2018           07/30/2003           06/26/1990           10/22/1989           10/22/1989           07/15/2004           12/12/2008           07/30/2003           06/15/1992           10/22/1989           07/30/2003           05/21/2018           09/27/1990	Low 0.03 0.003 0.01 0.01 0.19 0.01 0.01 0.01 0.01 0.02 0.02 0.20 0.02 0.20 0.01 0.0006 0.01 0.02 0.02 0.01 0.0006 0.01 0.02 0.003	04/01/2003 Date 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990	Average 0.12 0.01 0.04 0.01 0.37 0.01 2.32 0.04 0.01 0.13 0.03 0.05 1.25 0.06 0.0004 0.05 0.19 1.34 0.004	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	No. of Samples 26 26 26 26 184 26 183 26 26 26 26 26 26 26 26 26 26 26 26 26	545.20           High           0.70           0.04           0.23           0.01           1.48           0.01           141.00           0.07           0.01           141.00           0.07           0.01           0.80           0.05           0.13           9.10           0.14           0.0001           0.13           0.52           12.50           0.01           27.70	Date           10/22/1989           06/26/1991           07/15/2004           06/26/1990           04/14/2005           06/26/1990           04/14/2005           06/26/1990           05/21/2018           07/30/2003           06/26/1990           10/22/1989           10/22/1989           07/15/2004           12/12/2008           07/30/2003           06/15/1992           10/22/1989           07/30/2003           06/15/1992           10/22/1989           07/30/2003           05/21/2018           09/27/1990           01/09/2001	Low 0.03 0.003 0.01 0.01 0.19 0.01 0.01 0.01 0.01 0.02 0.02 0.02 0.20 0.01 0.006 0.01 0.02 0.01 0.02 0.01 0.006 0.01 0.02 0.01 0.003 0.01 0.02 0.02 0.02 0.01 0.001 0.02 0.001 0.001 0.02 0.001 0.001 0.001 0.001 0.002 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.002 0.001 0.002 0.001 0.001 0.001 0.001 0.001 0.001 0.002 0.001 0.001 0.002 0.001 0.001 0.02 0.02 0.02 0.01 0.02 0.02 0.02 0.02 0.001 0.02 0.02 0.001 0.02 0.001 0.02 0.001 0.02 0.001 0.000 0.000 0.001 0.000 0.001 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.0000 0.0000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.000000 0.00000 0.00000000	04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 10/22/1989 06/10/2020 06/26/1990 12/10/2019	Average 0.12 0.01 0.04 0.01 0.37 0.01 2.32 0.04 0.01 0.13 0.03 0.05 1.25 0.06 0.0004 0.05 0.19 1.34 0.004 12.57	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Nickel, dissolved Potassium, dissolved Selenium, dissolved Silica, dissolved	No. of Samples 26 26 26 26 184 26 183 26 26 26 26 26 26 26 26 26 26 26 26 26	545.20           High           0.70           0.04           0.23           0.01           1.48           0.01           141.00           0.07           0.01           141.00           0.07           0.01           0.80           0.05           0.13           9.10           0.14           0.0001           0.13           0.52           12.50           0.01           27.70           1,530.00	Date           10/22/1989           06/26/1991           07/15/2004           06/26/1990           04/14/2005           06/26/1990           04/14/2005           06/26/1990           05/21/2018           07/30/2003           06/26/1990           10/22/1989           10/22/1989           07/15/2004           12/12/2008           07/30/2003           06/15/1992           10/22/1989           07/30/2003           05/21/2018           09/27/1990           01/09/2001           04/14/2005	Low 0.03 0.003 0.01 0.19 0.01 0.30 0.01 0.01 0.01 0.02 0.02 0.20 0.02 0.20 0.01 0.006 0.01 0.02 0.02 0.20 0.01 0.02 0.001 0.02 0.001 0.02 0.001 0.02 0.01 0.02 0.001 0.002 0.01 0.02 0.02 0.02 0.01 0.001 0.02 0.02 0.01 0.001 0.001 0.001 0.001 0.002 0.001 0.001 0.001 0.002 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.002 0.001 0.001 0.002 0.001 0.001 0.002 0.002 0.02 0	04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 10/22/1989 06/10/2020 06/26/1990 12/10/2019 05/21/2018	Average 0.12 0.01 0.04 0.01 0.37 0.01 2.32 0.04 0.01 0.13 0.03 0.05 1.25 0.06 0.0004 0.05 0.19 1.34 0.004 12.57 321.32	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Nickel, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved Strontium, dissolved	No. of Samples 26 26 26 26 184 26 183 26 26 26 26 26 26 26 26 26 26 26 26 26	545.20           High           0.70           0.04           0.23           0.01           1.48           0.01           141.00           0.07           0.01           141.00           0.07           0.01           0.80           0.05           0.13           9.10           0.14           0.0001           0.13           0.52           12.50           0.01           27.70           1,530.00           1.34	Date           10/22/1989           06/26/1991           07/15/2004           06/26/1990           04/14/2005           06/26/1990           04/14/2005           06/26/1990           05/21/2018           07/30/2003           06/26/1990           10/22/1989           10/22/1989           07/15/2004           12/12/2008           07/30/2003           06/15/1992           10/22/1989           07/30/2003           05/21/2018           09/27/1990           01/09/2001           04/14/2005           12/12/2008	Low 0.03 0.01 0.01 0.19 0.01 0.01 0.01 0.01 0.01 0.02 0.02 0.02 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.01 0.02 0.02 0.01 0.02 0.01 0.02 0.02 0.01 0.02 0.01 0.02 0.02 0.01 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.02 0.01 0.02 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.02 0.01 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.01 0.02 0.03 0.0	04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/190 06/26/190 06/26/190 06/26/190 06/26/190 06/	Average 0.12 0.01 0.04 0.01 0.37 0.01 2.32 0.04 0.01 0.13 0.03 0.05 1.25 0.06 0.0004 0.05 0.19 1.34 0.004 12.57 321.32 0.20	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved Sodium, dissolved	No. of Samples 26 26 26 26 184 26 183 26 26 26 26 26 26 26 26 26 26 26 26 26	545.20           High           0.70           0.04           0.23           0.01           1.48           0.01           141.00           0.07           0.01           141.00           0.07           0.01           0.80           0.05           0.13           9.10           0.14           0.0001           0.13           0.52           12.50           0.01           27.70           1,530.00	Date           10/22/1989           06/26/1991           07/15/2004           06/26/1990           04/14/2005           06/26/1990           04/14/2005           06/26/1990           05/21/2018           07/30/2003           06/26/1990           10/22/1989           10/22/1989           07/15/2004           12/12/2008           07/30/2003           06/15/1992           10/22/1989           07/30/2003           05/21/2018           09/27/1990           01/09/2001           04/14/2005	Low 0.03 0.003 0.01 0.19 0.01 0.30 0.01 0.01 0.01 0.02 0.02 0.20 0.02 0.20 0.01 0.006 0.01 0.02 0.02 0.20 0.01 0.02 0.001 0.02 0.001 0.02 0.001 0.02 0.01 0.02 0.001 0.002 0.01 0.02 0.02 0.02 0.01 0.001 0.02 0.02 0.01 0.001 0.001 0.001 0.001 0.002 0.001 0.001 0.001 0.002 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.002 0.001 0.001 0.002 0.001 0.001 0.002 0.002 0.02 0	04/01/2003 <b>Date</b> 07/01/1997 06/15/1992 08/02/2006 06/26/1990 08/02/2006 06/26/1990 04/27/2004 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 06/26/1990 10/22/1989 06/10/2020 06/26/1990 12/10/2019 05/21/2018	Average 0.12 0.01 0.04 0.01 0.37 0.01 2.32 0.04 0.01 0.13 0.03 0.05 1.25 0.06 0.0004 0.05 0.19 1.34 0.004 12.57 321.32	Ft. Units mg/l

#### Table 14: 89-2 Quarterly A-Groove Aquifer

DAUB & ASSOCIATES, INC. 21. Harris Contraction



Deremetere	No. of			1			1
Parameters Wet Chemistry	Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3	108	16,300.00	02/24/2020	170.00	06/12/1990	3,629.99	mg/l
Carbonate as CaCO3	108	6,530.00	12/13/2016	9.00	04/27/2004	588.65	mg/l
Total Alkalinity as CaCO3	108	18,700.00	02/24/2020	477.00	04/16/2002	4,184.81	mg/l
Bromide	24	0.10	01/31/1991	0.08	07/31/2009	0.10	mg/l
Cation-Anion Balance	105	30.70	12/13/2016	-14.70	02/27/2017	-0.92	%
Sum of Anions	105	566.00	02/24/2020	11.49	02/24/1992	133.28	meq/l
Sum of Cations	105	516.00	08/17/2021	11.50	09/27/1990	125.21	meq/l
Chemical Oxygen Demand	20	191.00	06/29/2016	10.00	10/22/2002	61.30	mg/l
Chloride	107	6,950.00	08/17/2021	10.00	01/31/1991	1,643.11	mg/l
Conductivity, Lab	106	40,600.00	08/17/2021	1,075.00	01/31/1991	10,758.63	µmhos
Fluoride	108	51.90	02/24/2020	1.40	04/27/2004	19.27	mg/l
Hardness as CaCO3	108	98.00	11/06/2014	4.00	09/09/2015	41.41	mg/l
Nitrate as N, dissolved	24	3.99	01/31/1991	0.02	09/27/1990	0.70	mg/l
Nitrate/Nitrite as N,	24	4.00	01/31/1991	0.02	09/27/1990	0.60	mg/l
Nitrite as N, dissolved	24	0.02	09/27/1990	0.01	01/31/1991	0.02	mg/l
Nitrogen, Ammonia	23	5.85	04/07/2022	0.08	09/27/1990	1.24	mg/l
Nitrogen, Organic	23	2.50	06/29/2016	0.10	01/31/1991	0.53	mg/l
Nitrogen, Total Kieldahl	23	7.10	06/29/2016	0.04	09/27/1990	1.65	mg/l
pH, lab	106	12.80	01/27/2016	6.30	07/25/2002	8.76	units
Phosphate, total	20	13.00	04/07/2022	0.06	06/28/2007	1.94	mg/l
Phosphorus, total	23	4.14	04/07/2022	0.02	06/28/2007	0.54	mg/l
SAR in Water	103	1,600.00	12/13/2016	25.30	08/04/2008	235.53	none
Sulfate	108	933.00	09/09/2015	10.00	10/04/2011	90.83	mg/l
Sulfide	24	12.00	10/19/2000	0.07	10/22/2002	3.98	mg/l
Total Dissolved Solids	108	29,700.00	08/17/2021	700.00	07/21/1994	7,019.25	mg/l
Conductivity, Field	324	37,620.00	02/24/2020	1,122.70	05/04/2010	4,490.06	µmhos
pH, Field	109	12.50	04/13/2016	7.00	12/11/2018	8.48	units
Temperature (°C), Field	81	24.40	07/28/2011	7.50	03/04/2013	17.65	(°C)
Water Level, Field	29	549.12	10/15/2015	531.00	04/21/2016	538.61	Ft.
,,,					•		
Parameters	No. of	Lliah	Date	Law	Dete	Average	Units
Metals	Samples	High	Dale	Low	Date	Average	Units
Aluminum, dissolved	24	0.05	06/12/1990	0.04	06/28/2007	0.05	mg/l
Arsenic, dissolved	24	0.05	08/21/2015	0.0008	10/26/2004	0.01	mg/l
Barium, dissolved	24	2.09	04/07/2022	0.02	01/31/1991	0.54	mg/l
Beryllium, dissolved	24	0.01	06/12/1990	0.01	06/12/1990	0.01	mg/l
Boron, dissolved	108	18.40	08/17/2021	0.25	06/12/1990	3.13	mg/l
Cadmium, dissolved	24	0.01	06/12/1990	0.01	09/27/1990	0.01	mg/l
Calcium, dissolved	106	16.60	04/07/2022	U	05/17/2017	4.94	mg/l
Chromium, dissolved	24	0.02	09/28/2006	0.01	06/12/1990	0.01	mg/l
Copper, dissolved	24	0.01	06/12/1990	0.01	06/12/1990	0.01	mg/l
Iron, dissolved	24	3.00	08/21/2015	0.02	09/27/1990	0.23	mg/l
Lead, dissolved	24	0.02	06/12/1990	0.02	06/12/1990	0.02	mg/l
Lithium, dissolved	24	0.49	11/06/2014	0.01	06/12/1990	0.18	mg/l
Magnesium, dissolved	108	19.00	11/06/2014	2.00	06/12/1990	7.97	mg/l
Manganese, dissolved	24	0.08	10/04/2011	0.01	09/22/2010	0.02	mg/l
Mercury, dissolved	24	0.0004	10/30/2003	0.0001	06/12/1990	0.0002	mg/l
Molybdenum, dissolved	24	0.05	06/12/1990	0.02	09/15/2007	0.04	mg/l
Nickel, dissolved	24	0.02	06/12/1990	0.02	06/12/1990	0.02	mg/l
Potassium, dissolved	108	746.00	12/13/2016	0.40	07/18/2000	28.67	mg/l
Selenium, dissolved	24	0.0014	08/21/2015	0.001	06/12/1990	0.0011	mg/l
Silica, dissolved	108	40.00	09/09/2015	6.00	01/17/2018	12.70	mg/l
Sodium, dissolved	108	11,700.00	08/17/2021	259.00	06/12/1990	2,776.09	mg/l
Strontium, dissolved	108	4.93	11/06/2014	0.03	09/09/2015	1.91	mg/l
Vanadium dissolved	24	0.01	06/12/1990	0.01	06/12/1990	0.01	ma/l
Vanadium, dissolved Zinc, dissolved	24 24	0.01 0.02	06/12/1990 06/28/2007	0.01 0.01	06/12/1990 06/12/1990	0.01 0.01	mg/l mg/l

#### Table 15: 90-1 Annual A-Groove Aquifer (P&A'd 2022)

DAUB & ASSOCIATES, INC. 2038 St. Contraction



Doromotoro	No. of						
Parameters Wet Chemistry	Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3	131	2,790.00	11/07/2022	45.00	06/26/2002	836.40	mg/l
Carbonate as CaCO3	131	693.00	06/26/2002	10.00	12/16/2003	97.41	mg/l
Total Alkalinity as CaCO3	131	3,020.00	11/07/2022	142.00	09/28/2006	922.50	mg/l
Bromide	30	16.00	06/16/1997	0.29	08/01/1990	5.56	mg/l
Cation-Anion Balance	128	11.90	06/23/2010	-68.80	08/15/2017	-2.26	%
Sum of Anions	128	153.40	05/24/1994	34.16	08/01/1990	84.74	meq/l
Sum of Cations	128	143.00	02/27/1997	10.00	08/15/2017	81.72	meq/l
Chemical Oxygen Demand	22	840.00	08/16/1994	10.00	08/16/1996	192.50	mg/l
Chloride	131	4,690.00	05/24/1994	700.00	08/01/1990	2,389.57	mg/l
Conductivity, Lab	128	14,100.00	02/21/1994	309.00	05/27/2015	8,398.46	µmhos
Fluoride	131	23.70	08/01/1990	5.50	06/14/2008	12.44	mg/l
Hardness as CaCO3	131	204.00	02/21/1994	25.00	08/15/2017	86.09	mg/l
Nitrate as N, dissolved	29	0.08	06/26/2002	0.02	06/28/2006	0.05	mg/l
Nitrate/Nitrite as N,	29	0.09	06/16/2011	0.02	06/28/2006	0.06	mg/l
Nitrite as N, dissolved	29	0.04	06/16/2011	0.01	01/29/1991	0.02	mg/l
Nitrogen, Ammonia	28	3.30	08/10/2008	0.83	08/13/1990 07/21/1993	1.88 3.39	mg/l
Nitrogen, Organic Nitrogen, Total Kjeldahl	28 28	10.10 12.10	03/14/2008	0.40	06/14/2000	5.03	mg/l mg/l
pH, lab	128	9.10	12/14/2021	7.70	09/14/2000	8.58	units
Phosphate, total	26	155.00	06/28/2006	0.06	08/14/1995	17.00	mg/l
Phosphorus, total	28	0.11	08/13/1990	0.00	07/31/1991	0.06	mg/l
SAR in Water	128	4,950.00	06/24/2003	19.00	08/15/2017	128.88	none
Sulfate	130	2,310.00	06/15/2014	4.00	12/16/2004	70.78	mg/l
Sulfide	23	5.80	06/26/2002	0.02	08/10/2008	1.18	mg/l
Total Dissolved Solids	131	8,270.00	02/27/1997	2,110.00	08/15/2017	4,932.12	mg/l
Conductivity, Field	189	13,600.00	11/17/1993	2,900.00	08/01/1990	8,525.32	µmhos
pH, Field	184	9.53	07/29/2009	7.30	10/09/2019	8.53	units
Temperature (°C), Field	132	22.10				12.34	
	102	22.10	07/10/2018	7.40	12/15/2005	12.34	(°C)
Water Level, Field	108	552.00	06/06/2022	516.40	12/15/2005 10/01/1990	538.77	Ft.
Water Level, Field Parameters	108 No. of	552.00	06/06/2022		10/01/1990	538.77	Ft.
Water Level, Field Parameters Metals	108 No. of Samples	552.00 High	06/06/2022 Date	516.40	10/01/1990 Date	538.77 Average	Ft. Units
Water Level, Field Parameters Metals Aluminum, dissolved	108 <b>No. of</b> <b>Samples</b> 29	552.00 High 0.80	06/06/2022 Date 06/16/2005	516.40 Low 0.03	10/01/1990 Date 09/21/2010	538.77 Average 0.28	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	108 <b>No. of</b> <b>Samples</b> 29 29	552.00 High 0.80 0.05	06/06/2022 Date 06/16/2005 01/29/1991	516.40 Low 0.03 0.00	10/01/1990           Date           09/21/2010           06/28/2006	538.77 Average 0.28 0.01	Ft. Units mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	108 <b>No. of</b> <b>Samples</b> 29 29 29 29	552.00 High 0.80 0.05 1.56	06/06/2022 Date 06/16/2005 01/29/1991 03/14/2008	516.40 Low 0.03 0.00 0.09	10/01/1990           Date           09/21/2010           06/28/2006           08/01/1990	538.77 Average 0.28 0.01 0.85	Ft. Units mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	108 No. of Samples 29 29 29 29 29 29	552.00 High 0.80 0.05 1.56 U	06/06/2022 Date 06/16/2005 01/29/1991 03/14/2008 11/27/2012	516.40 Low 0.03 0.00 0.09 U	10/01/1990           Date           09/21/2010           06/28/2006           08/01/1990           08/10/2008	538.77 Average 0.28 0.01 0.85 U	Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	108 <b>No. of</b> <b>Samples</b> 29 29 29 29 29 29 29 131	552.00 High 0.80 0.05 1.56 U 1.29	06/06/2022 Date 06/16/2005 01/29/1991 03/14/2008 11/27/2012 07/21/1992	516.40 Low 0.03 0.00 0.09 U 0.10	10/01/1990           Date           09/21/2010           06/28/2006           08/01/1990           08/10/2008           11/20/1996	538.77 Average 0.28 0.01 0.85 U 0.35	Ft. Units mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	108 No. of Samples 29 29 29 29 29 29 29 131 29	552.00 High 0.80 0.05 1.56 U 1.29 0.03	06/06/2022 Date 06/16/2005 01/29/1991 03/14/2008 11/27/2012 07/21/1992 07/21/1993	516.40 Low 0.03 0.00 0.09 U 0.10 0.03	10/01/1990           Date           09/21/2010           06/28/2006           08/01/1990           08/10/2008           11/20/1996           07/21/1993	538.77 Average 0.28 0.01 0.85 U 0.35 0.03	Ft. Units mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	108 No. of Samples 29 29 29 29 29 29 131 29 131	552.00 High 0.80 0.05 1.56 U 1.29 0.03 45.00	06/06/2022 Date 06/16/2005 01/29/1991 03/14/2008 11/27/2012 07/21/1992 07/21/1993 12/16/2004	516.40 Low 0.03 0.00 0.09 U 0.10 0.03 3.00	10/01/1990           Date           09/21/2010           06/28/2006           08/01/1990           08/10/2008           11/20/1996           07/21/1993           11/20/1996	538.77 Average 0.28 0.01 0.85 U 0.35 0.03 10.70	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	108 No. of Samples 29 29 29 29 29 29 131 29 131 29	552.00 High 0.80 0.05 1.56 U 1.29 0.03 45.00 U	06/06/2022 Date 06/16/2005 01/29/1991 03/14/2008 11/27/2012 07/21/1992 07/21/1993 12/16/2004 11/27/2012	516.40 Low 0.03 0.00 0.09 U 0.10 0.03 3.00 U	10/01/1990           Date           09/21/2010           06/28/2006           08/01/1990           08/10/2008           11/20/1996           07/21/1993           11/20/1996           08/10/2008	538.77 Average 0.28 0.01 0.85 U 0.35 0.03 10.70 U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	108 No. of Samples 29 29 29 29 29 131 29 131 29 131 29 29 29	552.00 High 0.80 0.05 1.56 U 1.29 0.03 45.00 U 0.08	06/06/2022 Date 06/16/2005 01/29/1991 03/14/2008 11/27/2012 07/21/1992 07/21/1993 12/16/2004 11/27/2012 06/24/2004	516.40 Low 0.03 0.00 0.09 U 0.10 0.03 3.00 U 0.08	10/01/1990           Date           09/21/2010           06/28/2006           08/01/1990           08/10/2008           11/20/1996           07/21/1993           11/20/1996           08/10/2008           06/24/2004	538.77 Average 0.28 0.01 0.85 U 0.35 0.03 10.70 U 0.08	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	108 No. of Samples 29 29 29 29 29 131 29 131 29 131 29 29 29 29	552.00 High 0.80 0.05 1.56 U 1.29 0.03 45.00 U 0.08 1.67	06/06/2022 Date 06/16/2005 01/29/1991 03/14/2008 11/27/2012 07/21/1992 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990	516.40 Low 0.03 0.00 0.09 U 0.10 0.03 3.00 U	10/01/1990           Date           09/21/2010           06/28/2006           08/01/1990           08/10/2008           11/20/1996           07/21/1993           11/20/1996           08/10/2008           08/21/2019	538.77 Average 0.28 0.01 0.85 U 0.35 0.03 10.70 U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	108 No. of Samples 29 29 29 29 29 131 29 131 29 131 29 29 29 29 29 29	552.00 High 0.80 0.05 1.56 U 1.29 0.03 45.00 U 0.08 1.67 U	06/06/2022 Date 06/16/2005 01/29/1991 03/14/2008 11/27/2012 07/21/1992 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012	516.40 Low 0.03 0.00 0.09 U 0.10 0.03 3.00 U 0.08 0.07 U	10/01/1990           Date           09/21/2010           06/28/2006           08/01/1990           08/10/2008           11/20/1996           07/21/1993           11/20/1996           08/10/2008           06/24/2004           09/21/2010           08/10/2008	538.77 Average 0.28 0.01 0.85 U 0.35 0.03 10.70 U 0.08 0.39 U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	108 No. of Samples 29 29 29 29 29 131 29 131 29 29 29 29 29 29 29 29 29 29 29	552.00 High 0.80 0.05 1.56 U 1.29 0.03 45.00 U 0.08 1.67 U 0.10	06/06/2022 Date 06/16/2005 01/29/1991 03/14/2008 11/27/2012 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012 06/16/1997	516.40 Low 0.03 0.00 0.09 U 0.10 0.03 3.00 U 0.08 0.07	10/01/1990           Date           09/21/2010           06/28/2006           08/01/1990           08/10/2008           11/20/1996           07/21/1993           11/20/1996           08/10/2008           06/24/2004           09/21/2010           08/10/2008           06/24/2004           09/21/2010           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2008	538.77 Average 0.28 0.01 0.85 U 0.35 0.03 10.70 U 0.08 0.39	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	108 No. of Samples 29 29 29 29 29 131 29 131 29 131 29 29 29 29 29 29	552.00 High 0.80 0.05 1.56 U 1.29 0.03 45.00 U 0.08 1.67 U	06/06/2022 Date 06/16/2005 01/29/1991 03/14/2008 11/27/2012 07/21/1992 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012	516.40           Low           0.03           0.00           0.09           U           0.10           0.03           3.00           U           0.08           0.07           U           0.02	10/01/1990           Date           09/21/2010           06/28/2006           08/01/1990           08/10/2008           11/20/1996           07/21/1993           11/20/1996           08/10/2008           06/24/2004           09/21/2010           08/10/2008	538.77 Average 0.28 0.01 0.85 U 0.35 0.03 10.70 U 0.08 0.39 U 0.04	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved	108 No. of Samples 29 29 29 29 29 131 29 131 29 29 29 29 29 29 29 29 29 29 29 29 29	552.00 High 0.80 0.05 1.56 U 1.29 0.03 45.00 U 0.08 1.67 U 0.10 37.00	06/06/2022 Date 06/16/2005 01/29/1991 03/14/2008 11/27/2012 07/21/1992 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012 06/16/1997 02/21/1994	516.40 Low 0.03 0.00 0.09 U 0.10 0.03 3.00 U 0.08 0.07 U 0.02 3.90	10/01/1990           Date           09/21/2010           06/28/2006           08/01/1990           08/10/2008           11/20/1996           07/21/1993           11/20/1996           08/10/2008           06/24/2004           09/21/2010           08/10/2008           06/24/2004           09/21/2010           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2008	538.77 Average 0.28 0.01 0.85 U 0.35 0.03 10.70 U 0.08 0.39 U 0.04 14.38	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved	108 No. of Samples 29 29 29 29 131 29 131 29 29 29 29 29 29 29 29 29 29 29 29 29	552.00 High 0.80 0.05 1.56 U 1.29 0.03 45.00 U 0.08 1.67 U 0.10 37.00 0.15 0.002 0.37	06/06/2022 Date 06/16/2005 01/29/1991 03/14/2008 11/27/2012 07/21/1992 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012 06/16/1997 02/21/1994 10/25/1990 09/15/2007 08/13/1990	516.40           Low           0.03           0.00           0.09           U           0.10           0.03           3.00           U           0.08           0.07           U           0.02           3.90           0.01           0.002           0.13	10/01/1990           Date           09/21/2010           06/28/2006           08/01/1990           08/10/2008           11/20/1996           07/21/1993           11/20/1996           08/10/2008           06/24/2004           09/21/2010           08/10/2008           06/24/2004           09/21/2010           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/10/2017           09/21/2010	538.77 Average 0.28 0.01 0.85 U 0.35 0.03 10.70 U 0.08 0.39 U 0.04 14.38 0.05 0.0009 0.24	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved	108 No. of Samples 29 29 29 29 131 29 131 29 29 29 29 29 29 29 29 29 29 29 29 29	552.00 High 0.80 0.05 1.56 U 1.29 0.03 45.00 U 0.08 1.67 U 0.10 37.00 0.15 0.002 0.37 U	06/06/2022 Date 06/16/2005 01/29/1991 03/14/2008 11/27/2012 07/21/1992 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012 06/16/1997 02/21/1994 10/25/1990 09/15/2007 08/13/1990 11/27/2012	516.40 Low 0.03 0.00 0.09 U 0.10 0.03 3.00 U 0.08 0.07 U 0.08 0.07 U 0.02 3.90 0.01 0.0002 0.13 U	10/01/1990 Date 09/21/2010 06/28/2006 08/01/1990 08/10/2008 11/20/1996 07/21/1993 11/20/1996 08/10/2008 06/24/2004 09/21/2010 08/10/2008 08/13/1990 08/15/2017 09/21/2010 08/14/1995 10/25/1990 08/10/2008	538.77 Average 0.28 0.01 0.85 U 0.35 0.03 10.70 U 0.08 0.39 U 0.04 14.38 0.05 0.0009 0.24 U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved	108 <b>No. of</b> <b>Samples</b> 29 29 29 29 131 29 29 29 29 29 29 29 29 29 29	552.00 High 0.80 0.05 1.56 U 1.29 0.03 45.00 U 0.08 1.67 U 0.10 37.00 0.15 0.002 0.37 U 10.00	06/06/2022 Date 06/16/2005 01/29/1991 03/14/2008 11/27/2012 07/21/1992 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012 06/16/1997 02/21/1994 10/25/1990 09/15/2007 08/13/1990 11/27/2012 07/31/1991	516.40 Low 0.03 0.00 0.09 U 0.10 0.03 3.00 U 0.08 0.07 U 0.02 3.90 0.01 0.0002 0.13 U 1.37	10/01/1990           Date           09/21/2010           06/28/2006           08/01/1990           08/10/2008           11/20/1996           07/21/1993           11/20/1996           08/10/2008           06/24/2004           09/21/2010           08/10/2008           08/10/2008           08/11/2010           08/10/2008           08/13/1990           08/15/2017           09/21/2010           08/14/1995           10/25/1990           08/10/2008           12/14/2020	538.77 Average 0.28 0.01 0.85 U 0.35 0.03 10.70 U 0.08 0.39 U 0.04 14.38 0.05 0.0009 0.24 U 2.99	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	108 <b>No. of</b> <b>Samples</b> 29 29 29 29 131 29 131 29 29 29 29 29 29 29 29 29 29	552.00 High 0.80 0.05 1.56 U 1.29 0.03 45.00 U 0.08 1.67 U 0.10 37.00 0.15 0.002 0.37 U 10.00 0.003	06/06/2022 Date 06/16/2005 01/29/1991 03/14/2008 11/27/2012 07/21/1992 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012 06/16/1997 02/21/1994 10/25/1990 09/15/2007 08/13/1990 11/27/2012 07/31/1991 01/29/1991	516.40 Low 0.03 0.00 0.09 U 0.10 0.03 3.00 U 0.08 0.07 U 0.02 3.90 0.01 0.0002 0.13 U 1.37 0.001	10/01/1990 Date 09/21/2010 06/28/2006 08/01/1990 08/10/2008 11/20/1996 07/21/1993 11/20/1996 07/21/1993 11/20/1996 08/10/2008 08/10/2008 08/13/1990 08/14/1995 10/25/1990 08/10/2008 12/14/2020 08/13/1990	538.77 Average 0.28 0.01 0.85 U 0.35 0.03 10.70 U 0.08 0.39 U 0.04 14.38 0.05 0.0009 0.24 U 2.99 0.002	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	108           No. of           Samples           29           29           29           29           29           131           29           131           29           131           29           131	552.00 High 0.80 0.05 1.56 U 1.29 0.03 45.00 U 0.08 1.67 U 0.10 37.00 0.15 0.002 0.37 U 10.00 0.03 63.00	06/06/2022 Date 06/16/2005 01/29/1991 03/14/2008 11/27/2012 07/21/1992 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012 06/16/1997 02/21/1994 10/25/1990 09/15/2007 08/13/1990 11/27/2012 07/31/1991 01/29/1991 12/16/2004	516.40           Low           0.03           0.00           0.09           U           0.10           0.03           3.00           U           0.08           0.07           U           0.02           3.90           0.01           0.002           0.13           U           1.37           0.001           2.10	10/01/1990 Date 09/21/2010 06/28/2006 08/01/1990 08/10/2008 11/20/1996 07/21/1993 11/20/1996 08/10/2008 06/24/2004 09/21/2010 08/10/2008 08/13/1990 08/15/2017 09/21/2010 08/14/1995 10/25/1990 08/10/2008 12/14/2020 08/13/1990 04/20/1992	538.77 Average 0.28 0.01 0.85 U 0.35 0.03 10.70 U 0.08 0.39 U 0.04 14.38 0.05 0.0009 0.24 U 2.99 0.002 12.22	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	108           No. of           Samples           29           29           29           29           29           131           29           131           29           131           29           131           131	552.00 High 0.80 0.05 1.56 U 1.29 0.03 45.00 U 0.08 1.67 U 0.10 37.00 0.15 0.002 0.37 U 10.00 0.03 63.00 3,180.00	06/06/2022 Date 06/16/2005 01/29/1991 03/14/2008 11/27/2012 07/21/1992 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012 06/16/1997 02/21/1994 10/25/1990 09/15/2007 08/13/1990 11/27/2012 07/31/1991 01/29/1991 12/16/2004 02/27/1997	516.40           Low           0.03           0.00           0.09           U           0.10           0.03           3.00           U           0.08           0.07           U           0.02           3.90           0.01           0.002           0.13           U           1.37           0.001           2.10           220.00	10/01/1990           Date           09/21/2010           06/28/2006           08/01/1990           08/10/2008           11/20/1996           07/21/1993           11/20/1996           08/10/2008           06/24/2004           09/21/2010           08/10/2008           08/10/2008           08/11/2010           08/15/2017           09/21/2010           08/15/2017           09/21/2010           08/15/2017           09/21/2010           08/10/2008           12/14/2020           08/10/2008           12/14/2020           08/13/1990           04/20/1992           08/15/2017	538.77 Average 0.28 0.01 0.85 U 0.35 0.03 10.70 U 0.08 0.39 U 0.04 14.38 0.05 0.0009 0.24 U 2.99 0.002 12.22 1,870.50	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved Strontium, dissolved	108           No. of           Samples           29           29           29           29           29           131           29           131           29           29           131           29           131           29           131           131           131	552.00 High 0.80 0.05 1.56 U 1.29 0.03 45.00 U 0.08 1.67 U 0.10 37.00 0.15 0.002 0.37 U 10.00 0.03 63.00 3,180.00 8.17	06/06/2022 Date 06/16/2005 01/29/1991 03/14/2008 11/27/2012 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012 06/16/1997 02/21/1994 10/25/1990 09/15/2007 08/13/1990 11/27/2012 07/31/1991 01/29/1991 12/16/2004 02/27/1997 02/21/1994	516.40 Low 0.03 0.00 0.09 U 0.10 0.03 3.00 U 0.03 3.00 U 0.08 0.07 U 0.02 3.90 0.01 0.002 0.13 U 1.37 0.001 2.10 220.00 0.30	10/01/1990           Date           09/21/2010           06/28/2006           08/01/1990           08/10/2008           11/20/1996           07/21/1993           11/20/1996           08/10/2008           06/24/2004           09/21/2010           08/10/2008           08/10/2008           08/10/2008           08/10/2008           08/15/2017           09/21/2010           08/15/2017           09/21/2010           08/15/2017           09/21/2010           08/15/2017           08/10/2008           12/14/2020           08/13/1990           04/20/1992           08/15/2017           08/15/2017           08/15/2017	538.77 Average 0.28 0.01 0.85 U 0.35 0.03 10.70 U 0.08 0.39 U 0.04 14.38 0.05 0.0009 0.24 U 2.99 0.002 12.22 1.870.50 3.11	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	108           No. of           Samples           29           29           29           29           29           131           29           131           29           131           29           131           131	552.00 High 0.80 0.05 1.56 U 1.29 0.03 45.00 U 0.08 1.67 U 0.10 37.00 0.15 0.002 0.37 U 10.00 0.03 63.00 3,180.00	06/06/2022 Date 06/16/2005 01/29/1991 03/14/2008 11/27/2012 07/21/1992 07/21/1993 12/16/2004 11/27/2012 06/24/2004 10/25/1990 11/27/2012 06/16/1997 02/21/1994 10/25/1990 09/15/2007 08/13/1990 11/27/2012 07/31/1991 01/29/1991 12/16/2004 02/27/1997	516.40           Low           0.03           0.00           0.09           U           0.10           0.03           3.00           U           0.08           0.07           U           0.02           3.90           0.01           0.002           0.13           U           1.37           0.001           2.10           220.00	10/01/1990           Date           09/21/2010           06/28/2006           08/01/1990           08/10/2008           11/20/1996           07/21/1993           11/20/1996           08/10/2008           06/24/2004           09/21/2010           08/10/2008           08/10/2008           08/11/2010           08/15/2017           09/21/2010           08/15/2017           09/21/2010           08/15/2017           09/21/2010           08/10/2008           12/14/2020           08/10/2008           12/14/2020           08/13/1990           04/20/1992           08/15/2017	538.77 Average 0.28 0.01 0.85 U 0.35 0.03 10.70 U 0.08 0.39 U 0.04 14.38 0.05 0.0009 0.24 U 2.99 0.002 12.22 1,870.50	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Table 16: 90-4 Quarterly A-Groove Aquifer

DAUB & ASSOCIATES, INC. 21. Harris Contraction



Doromotoro	No. of						
Parameters Wet Chemistry	Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3	15	1,410	06/03/2020	198	02/10/2015	699	mg/l
Carbonate as CaCO3	15	275	02/01/2022	53	11/04/2014	194	mg/l
Total Alkalinity as CaCO3	15	1,670	06/03/2020	377	02/10/2015	893	mg/l
Bromide	11	2.38	04/22/2019	0.17	01/29/2015	1.27	mg/l
Cation-Anion Balance	15	2.00	10/05/2022	-6.70	02/10/2015	-2.58	%
Sum of Anions	15	45.00	06/11/2019	15.00	12/15/2015	25.47	meq/l
Sum of Cations	15	42.00	06/11/2019	14.00	02/10/2015	24.07	meq/l
Chemical Oxygen Demand	11	37.00	12/15/2015	10.00	06/11/2019	19.11	mg/l
Chloride	15	435	06/11/2019	92	11/04/2014	193	mg/l
Conductivity, Lab	15	3,800	06/11/2019	1,430	11/04/2014	2,340	µmhos
Fluoride	15	17.50	06/03/2020	5.47	06/19/2018	10.87	mg/l
Hardness as CaCO3	15	80.00	06/11/2019	13.00	06/19/2018	36.02	mg/l
Nitrate as N, dissolved	<u>11</u> 11	0.02	01/29/2015	0.02	01/29/2015	0.02	mg/l
Nitrate/Nitrite as N,	11	0.03	01/29/2015	0.00	11/04/2014 11/04/2014	0.02	mg/l
Nitrite as N, dissolved Nitrogen, Ammonia	11	0.01 1.51	01/29/2015 09/28/2017		04/05/2016	0.01 0.84	mg/l mg/l
Nitrogen, Organic	11	0.50	01/29/2015	0.47	04/05/2016	0.84	mg/l
Nitrogen, Total Kjeldahl	11	1.90	09/28/2017	0.60	04/05/2016	1.05	mg/l
pH, lab	15	9.70	01/29/2015	8.70	11/04/2014	9.23	units
Phosphate, total	11	1.02	06/03/2020	0.06	06/19/2018	0.38	mg/l
Phosphorus, total	11	0.33	06/03/2020	0.02	06/19/2018	0.00	mg/l
SAR in Water	15	59	06/03/2020	20.00	11/04/2014	40	none
Sulfate	15	210	02/10/2015	14.60	06/03/2022	78	mg/l
Sulfide	11	6.20	06/03/2020	0.04	11/04/2014	2.22	mg/l
Total Dissolved Solids	15	2,400	06/11/2019	843	12/15/2015	1,374	mg/l
Conductivity, Field	13	4,062	04/22/2019	1,432	04/05/2016	2,453	µmhos
pH, Field	13	9.64	06/19/2018	8.44	04/22/2019	8.99	units
Temperature (°C), Field	13	22.22	06/19/2018	14.90	02/01/2022	18.21	(°C)
Water Level, Field	13	581.90	09/28/2017	569.40	05/18/2021	574.22	Ft.
Parameters	No. of	High	Date	Low	Date	Average	Units
Metals Aluminum, dissolved	Samples 11	U	06/03/2020	U	11/04/2014	U	mal
Arsenic, dissolved		•	11/04/2014	0.0004	02/10/2015	0.0011	mg/l mg/l
					02/10/2015		IIIg/I
	11	0.0038		0.01	12/15/2015	0.12	ma/l
Barium, dissolved	11	0.41	04/22/2019	0.01	12/15/2015	0.12	mg/l
Barium, dissolved Beryllium, dissolved	11 11	0.41 U	04/22/2019 06/03/2020	U	11/04/2014	U	mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved	11 11 15	0.41 U 1.07	04/22/2019 06/03/2020 06/03/2020	U 0.21	11/04/2014 02/10/2015	U 0.49	mg/l mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	11 11 15 11	0.41 U 1.07 U	04/22/2019 06/03/2020 06/03/2020 06/03/2020	U 0.21 U	11/04/2014 02/10/2015 11/04/2014	U 0.49 U	mg/l mg/l mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	11 11 15 11 15	0.41 U 1.07	04/22/2019 06/03/2020 06/03/2020 06/03/2020 11/04/2014	U 0.21	11/04/2014 02/10/2015 11/04/2014 04/05/2016	U 0.49	mg/l mg/l mg/l mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	11 11 15 11 15 15 11	0.41 U 1.07 U 7.80	04/22/2019 06/03/2020 06/03/2020 06/03/2020 11/04/2014 06/03/2020	U 0.21 U 1.30	11/04/2014 02/10/2015 11/04/2014 04/05/2016 11/04/2014	U 0.49 U 3.63	mg/l mg/l mg/l mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	11 11 15 11 15	0.41 U 1.07 U 7.80 U	04/22/2019 06/03/2020 06/03/2020 06/03/2020 11/04/2014	U 0.21 U 1.30 U	11/04/2014 02/10/2015 11/04/2014 04/05/2016	U 0.49 U 3.63 U	mg/l mg/l mg/l mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	11 15 11 15 11 15 11 11	0.41 U 1.07 U 7.80 U U U	04/22/2019 06/03/2020 06/03/2020 06/03/2020 11/04/2014 06/03/2020 06/03/2020	U 0.21 U 1.30 U U	11/04/2014 02/10/2015 11/04/2014 04/05/2016 11/04/2014 11/04/2014	U 0.49 U 3.63 U U	mg/l mg/l mg/l mg/l mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	11           15           11           15           11           15           11           11           11           11           11           11           11           11           11           11           11	0.41 U 1.07 U 7.80 U U 0.86 U 0.28	04/22/2019 06/03/2020 06/03/2020 11/04/2014 06/03/2020 06/03/2020 06/03/2020 09/28/2017 06/03/2020 06/11/2019	U 0.21 U 1.30 U U 0.03 U 0.12	11/04/2014 02/10/2015 11/04/2014 04/05/2016 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014	U 0.49 U 3.63 U U 0.25 U 0.17	mg/l mg/l mg/l mg/l mg/l mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	11           15           11           15           11           15           11           11           11           11           11           15	0.41 U 1.07 U 7.80 U U 0.86 U 0.28 17.10	04/22/2019 06/03/2020 06/03/2020 11/04/2014 06/03/2020 06/03/2020 09/28/2017 06/03/2020 06/11/2019 06/11/2019	U 0.21 U 1.30 U U 0.03 U 0.12 2.40	11/04/2014 02/10/2015 11/04/2014 04/05/2016 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/19/2018	U 0.49 U 3.63 U U 0.25 U 0.17 6.80	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	11         15         11         15         11         15         11	0.41 U 1.07 U 7.80 U U 0.86 U 0.28 17.10 0.08	04/22/2019 06/03/2020 06/03/2020 11/04/2014 06/03/2020 06/03/2020 09/28/2017 06/03/2020 06/11/2019 06/11/2019 11/04/2014	U 0.21 U 1.30 U 0.03 U 0.12 2.40 0.01	11/04/2014 02/10/2015 11/04/2014 04/05/2016 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/19/2018 04/05/2016	U 0.49 U 3.63 U U 0.25 U 0.17 6.80 0.03	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved	11         15         11         15         11         15         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11	0.41 U 1.07 U 7.80 U U 0.86 U 0.28 17.10 0.08 U	04/22/2019 06/03/2020 06/03/2020 11/04/2014 06/03/2020 06/03/2020 09/28/2017 06/03/2020 06/11/2019 06/11/2019 11/04/2014 06/03/2020	U 0.21 U 1.30 U 0.03 U 0.12 2.40 0.01 U	11/04/2014 02/10/2015 11/04/2014 04/05/2016 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/19/2018 04/05/2016 11/04/2014	U 0.49 U 3.63 U U 0.25 U 0.17 6.80 0.03 U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved	11         15         11         15         11	0.41 U 1.07 U 7.80 U U 0.86 U 0.28 17.10 0.08 U 0.19	04/22/2019 06/03/2020 06/03/2020 11/04/2014 06/03/2020 06/03/2020 09/28/2017 06/03/2020 06/11/2019 06/11/2019 11/04/2014 06/03/2020 06/19/2018	U 0.21 U 1.30 U U 0.03 U 0.12 2.40 0.01 U 0.06	11/04/2014 02/10/2015 11/04/2014 04/05/2016 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/19/2018 04/05/2016 11/04/2014 11/04/2014	U 0.49 U 3.63 U U 0.25 U 0.17 6.80 0.03 U 0.13	mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved	11         15         11         15         11	0.41 U 1.07 U 7.80 U U 0.86 U 0.28 17.10 0.08 U 0.19 U	04/22/2019 06/03/2020 06/03/2020 11/04/2014 06/03/2020 06/03/2020 09/28/2017 06/03/2020 06/11/2019 06/11/2019 11/04/2014 06/03/2020 06/19/2018 06/03/2020	U 0.21 U 1.30 U U 0.03 U 0.12 2.40 0.01 U 0.06 U	11/04/2014 02/10/2015 11/04/2014 04/05/2016 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/19/2018 04/05/2016 11/04/2014 11/04/2014	U 0.49 U 3.63 U U 0.25 U 0.17 6.80 0.03 U 0.13 U	mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved	11         15         11         15         11         11         11         11         11         11         11         11         11         11         11         11         11         15         11         15         11         15         11         15         11         11         11         15	0.41 U 1.07 U 7.80 U U 0.86 U 0.28 17.10 0.08 U 0.19 U 0.19 U 11.30	04/22/2019 06/03/2020 06/03/2020 11/04/2014 06/03/2020 06/03/2020 09/28/2017 06/03/2020 06/11/2019 06/11/2019 11/04/2014 06/03/2020 06/19/2018 06/03/2020	U 0.21 U 1.30 U 0.03 U 0.03 U 0.12 2.40 0.01 U 0.06 U 1.23	11/04/2014 02/10/2015 11/04/2014 04/05/2016 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/19/2018 04/05/2016 11/04/2014 11/04/2014 11/04/2014 11/04/2014	U 0.49 U 3.63 U U 0.25 U 0.17 6.80 0.03 U 0.13 U 5.00	mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Nolybdenum, dissolved Nickel, dissolved Selenium, dissolved	11         15         11         15         11         11         11         11         11         11         11         11         11         11         15         11         15         11         15         11         15         11         11         11         11         11         11         11         11         11         11         11         11         11         11         11           11          11	0.41 U 1.07 U 7.80 U U 0.86 U 0.28 17.10 0.08 U 0.19 U 0.19 U 11.30 0.0134	04/22/2019 06/03/2020 06/03/2020 11/04/2014 06/03/2020 06/03/2020 09/28/2017 06/03/2020 06/11/2019 06/11/2019 11/04/2014 06/03/2020 06/19/2018 06/03/2020 06/19/2018	U 0.21 U 1.30 U 0.03 U 0.12 2.40 0.01 U 0.06 U 1.23 0.0002	11/04/2014 02/10/2015 11/04/2014 04/05/2016 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/19/2018 04/05/2016 11/04/2014 11/04/2014 11/04/2014 11/04/2014 10/05/2022 09/28/2017	U 0.49 U 3.63 U U 0.25 U 0.17 6.80 0.03 U 0.13 U 0.13 U 5.00 0.0005	mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Nickel, dissolved Potassium, dissolved Selenium, dissolved	11         15         11         15         11         11         11         11         11         11         11         11         11         11         15         11         15         11         15         11         15         11         15         11         15         11         15         11         15	0.41 U 1.07 U 7.80 U U 0.86 U 0.28 17.10 0.08 U 0.19 U 0.19 U 11.30 0.0134 13.90	04/22/2019 06/03/2020 06/03/2020 11/04/2014 06/03/2020 06/03/2020 09/28/2017 06/03/2020 06/11/2019 06/11/2019 11/04/2014 06/03/2020 06/19/2018 06/03/2020 06/19/2018 05/18/2021 11/04/2014	U 0.21 U 1.30 U 0.03 U 0.12 2.40 0.01 U 0.06 U 1.23 0.0002 0.20	11/04/2014 02/10/2015 11/04/2014 04/05/2016 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/19/2018 04/05/2016 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 09/28/2017 02/10/2015	U 0.49 U 3.63 U U 0.25 U 0.17 6.80 0.03 U 0.13 U 5.00 0.0005 6.76	mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	11         15         11         15         11         11         11         11         11         11         11         11         11         11         15         11         15         11         15         11         15         11         15         15         15	0.41 U 1.07 U 7.80 U U 0.86 U 0.28 17.10 0.08 U 0.19 U 0.19 U 11.30 0.0134 13.90 924	04/22/2019 06/03/2020 06/03/2020 11/04/2014 06/03/2020 06/03/2020 06/03/2020 06/03/2020 06/11/2019 11/04/2014 06/03/2020 06/19/2018 06/03/2020 06/19/2018 06/03/2021 11/04/2014 05/18/2021	U 0.21 U 1.30 U 0.03 U 0.12 2.40 0.01 U 0.06 U 1.23 0.0002 0.20 303	11/04/2014 02/10/2015 11/04/2014 04/05/2016 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/19/2018 04/05/2016 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 09/28/2017 02/10/2015 02/10/2015	U 0.49 U 3.63 U 0.25 U 0.17 6.80 0.03 U 0.13 U 0.13 U 5.00 0.0005 6.76 514	mg/l           mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved Silica, dissolved Strontium, dissolved	$\begin{array}{c} 11\\ 11\\ 15\\ 11\\ 15\\ 11\\ 11\\ 11\\ 11\\ 11\\$	0.41 U 1.07 U 7.80 U U 0.86 U 0.28 17.10 0.08 U 0.19 U 0.19 U 11.30 0.0134 13.90 924 1.93	04/22/2019 06/03/2020 06/03/2020 11/04/2014 06/03/2020 06/03/2020 06/03/2020 09/28/2017 06/03/2020 06/11/2019 11/04/2014 06/03/2020 06/19/2018 06/03/2020 06/19/2018 06/03/2021 11/04/2014 05/18/2021 11/04/2014 06/11/2019	U 0.21 U 1.30 U 0.03 U 0.12 2.40 0.01 U 0.06 U 1.23 0.0002 0.20 303 0.23	11/04/2014 02/10/2015 11/04/2014 04/05/2016 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/19/2018 04/05/2016 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 10/05/2022 09/28/2017 02/10/2015 02/10/2015 12/15/2015	U 0.49 U 3.63 U U 0.25 U 0.17 6.80 0.03 U 0.13 U 0.13 U 5.00 0.0005 6.76 514 0.78	mg/l
Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Mercury, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	11         15         11         15         11         11         11         11         11         11         11         11         11         11         15         11         15         11         15         11         15         11         15         15         15	0.41 U 1.07 U 7.80 U U 0.86 U 0.28 17.10 0.08 U 0.19 U 0.19 U 11.30 0.0134 13.90 924	04/22/2019 06/03/2020 06/03/2020 11/04/2014 06/03/2020 06/03/2020 06/03/2020 06/03/2020 06/11/2019 11/04/2014 06/03/2020 06/19/2018 06/03/2020 06/19/2018 06/03/2021 11/04/2014 05/18/2021	U 0.21 U 1.30 U 0.03 U 0.12 2.40 0.01 U 0.06 U 1.23 0.0002 0.20 303	11/04/2014 02/10/2015 11/04/2014 04/05/2016 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/19/2018 04/05/2016 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 09/28/2017 02/10/2015 02/10/2015	U 0.49 U 3.63 U 0.25 U 0.17 6.80 0.03 U 0.13 U 0.13 U 5.00 0.0005 6.76 514	mg/l           mg/l

#### Table 17: AG-1 Quarterly A-Groove Aquifer

DAUB & ASSOCIATES, INC. DIFFERENCE CONTRACTOR



Parameters	No. of			Dete		Dette		11
Wet Chemistry	Samples		High	Date	Low	Date	Average	Units
Bicarbonate as	5		441 (	08/17/2021	308	11/12/2021	368	mg/l
Carbonate as	5			11/12/2021	80	08/17/2021	179	mg/l
Total Alkalinity as	5		592 <sup>·</sup>	11/12/2021	513	09/03/2021	547	mg/l
Bromide	3		U	08/17/2021	U	09/10/2021	U	mg/l
Cation-Anion	5		3.20	09/03/2021	-3.40	03/14/2022	-0.64	%
Sum of Anions	5			09/10/2021		08/17/2021	15.40	meq/l
Sum of Cations	5			09/10/2021		08/17/2021	15.20	meq/l
Chemical Oxygen	4			09/03/2021		09/10/2021	29.33	mg/l
Chloride	5			09/10/2021	14	03/14/2022	25	mg/l
Conductivity, Lab	5			11/12/2021		08/17/2021	1,430	µmhos
Fluoride	5			09/03/2021	9.31	09/10/2021	9.90	mg/l
Hardness as	5			08/17/2021		09/03/2021	51.80	mg/l
Nitrate as N,	3			08/17/2021	UH	09/10/2021	UH	mg/l
Nitrate/Nitrite as	3			08/17/2021	UH	09/10/2021	UH	mg/l
Nitrite as N,	3			08/17/2021	UH	09/10/2021	UH	mg/l
Nitrogen,	4			09/03/2021	0.39	08/17/2021	0.71	mg/l
Nitrogen, Organic	4			09/10/2021	0.31	09/03/2021	0.46	mg/l
Nitrogen, Total	4			09/10/2021	0.78	03/14/2022	1.06	mg/l
pH, lab	5			09/10/2021	8.90	08/17/2021	9.40	units
Phosphate, total	4			09/03/2021	0.19	03/14/2022	0.83	mg/l
Phosphorus, total	4			09/03/2021	0.06	03/14/2022	0.27	mg/l
SAR in Water	5			09/03/2021		08/17/2021	19	none
Sulfate	5			11/12/2021		08/17/2021	149	mg/l
Sulfide	4			09/10/2021	0.10	08/17/2021	1.20	mg/l
Total Dissolved	5			09/10/2021	735	08/17/2021	871	mg/l
Conductivity, Field	8			09/10/2021		08/11/2021	1,237	µmhos
pH, Field	8			09/03/2021	7.44	08/11/2021	8.54	units
	Temperature (°C),	8		08/11/2021		03/14/2022	18.96	(°C)
Water Level, Field	7	371.00	09/08/2022	2 368.70	09/	03/2021	369.81	Ft.
				- 0000110	00/		000.01	
Deremetere	No. of				00/		000.01	
Parameters Motals	No. of	High	Date	Low		Date	Average	Units
Metals	Samples	-	Date	Low		Date	Average	Units
Metals Aluminum,	Samples 4	0.09	<b>Date</b>	<b>Low</b> 1 0.09	08/	<b>Date</b> 17/2021	Average	Units mg/l
Metals Aluminum, Arsenic, dissolved	Samples 4 4	0.09 0.45	Date 08/17/202 09/10/202	Low 1 0.09 1 0.06	08/	<b>Date</b> 17/2021 17/2021	Average 0.09 0.23	Units mg/l mg/l
Metals Aluminum, Arsenic, dissolved Barium, dissolved	Samples 4 4 4 4	0.09 0.45 0.07	Date 08/17/202 09/10/202 09/10/202	Low 1 0.09 1 0.06 1 0.02	08/ 08/ 08/	Date 17/2021 17/2021 17/2021	Average 0.09 0.23 0.05	Units mg/l mg/l mg/l
Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium,	Samples           4           4           4           4           4           4           4           4	0.09 0.45 0.07 U	Date 08/17/202 09/10/202 09/10/202 08/17/202	Low 1 0.09 1 0.06 1 0.02 1 U	08/ 08/ 08/ 09/	Date 17/2021 17/2021 17/2021 10/2021	Average 0.09 0.23 0.05 U	Units mg/l mg/l mg/l
Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved	Samples           4           4           4           4           4           5	0.09 0.45 0.07 U 0.26	Date 08/17/202 09/10/202 09/10/202 08/17/202 09/10/202	Low 1 0.09 1 0.06 1 0.02 1 U 1 U 1 0.25	08/ 08/ 08/ 09/ 08/	Date 17/2021 17/2021 17/2021 10/2021 17/2021	Average 0.09 0.23 0.05 U 0.25	Units mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium,	Samples           4           4           4           4           5           4	0.09 0.45 0.07 U 0.26 U	Date 08/17/202 09/10/202 09/10/202 08/17/202 09/10/202 08/17/202	Low 1 0.09 1 0.06 1 0.02 1 U 1 0.25 1 U 1 0.25 1 U	08/ 08/ 08/ 09/ 08/ 09/	Date 17/2021 17/2021 17/2021 10/2021 17/2021 10/2021	Average 0.09 0.23 0.05 U 0.25 U	Units mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium, Calcium,	Samples           4           4           4           5           4           5           5	0.09 0.45 0.07 U 0.26 U 11.30	Date 08/17/202 09/10/202 09/10/202 08/17/202 09/10/202 08/17/202 08/17/202	Low 1 0.09 1 0.06 1 0.02 1 U 1 0.25 1 U 1 0.25 1 U 1 4.84	08/ 08/ 08/ 09/ 08/ 09/ 09/	Date 17/2021 17/2021 17/2021 10/2021 17/2021 10/2021 10/2021 03/2021	Average 0.09 0.23 0.05 U 0.25 U 7.52	Units mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium, Calcium, Chromium,	Samples           4           4           4           5           4           5           4           5           4           5           4           5           4	0.09 0.45 0.07 U 0.26 U 11.30 U	Date 08/17/202 09/10/202 09/10/202 08/17/202 08/17/202 08/17/202 08/17/202	Low 1 0.09 1 0.06 1 0.02 1 U 1 0.25 1 U 1 0.25 1 U 1 4.84 1 U	08/ 08/ 08/ 09/ 08/ 09/ 09/ 09/	Date 17/2021 17/2021 17/2021 10/2021 17/2021 10/2021 03/2021 10/2021 10/2021	Average 0.09 0.23 0.05 U 0.25 U 7.52 U	Units mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved	Samples           4           4           4           5           4           5           4           5           4           5           4           4           4	0.09 0.45 0.07 U 0.26 U 11.30 U U	Date 08/17/202 09/10/202 09/10/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202	Low 1 0.09 1 0.06 1 0.02 1 U 1 0.25 1 U 1 0.25 1 U 1 4.84 1 U 1 U 1 U	08/ 08/ 08/ 09/ 09/ 09/ 09/ 09/	Date 17/2021 17/2021 17/2021 10/2021 17/2021 10/2021 03/2021 10/2021 10/2021 10/2021 10/2021	Average 0.09 0.23 0.05 U 0.25 U 7.52 U U U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved	Samples           4           4           4           5           4           5           4           5           4           5           4           4           4           4           4           4           4           4           4           4           4           4           4           4	0.09 0.45 0.07 U 0.26 U 11.30 U U U 0.30	Date 08/17/202 09/10/202 09/10/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202	Low 1 0.09 1 0.06 1 0.02 1 U 1 0.25 1 U 1 4.84 1 U 1 U 1 U 1 U 1 0.17	08/ 08/ 08/ 09/ 09/ 09/ 09/ 09/ 09/	Date 17/2021 17/2021 17/2021 10/2021 10/2021 03/2021 10/2021 10/2021 10/2021 03/2021 03/2021 03/2021	Average 0.09 0.23 0.05 U 0.25 U 7.52 U U 0.25	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved	Samples           4           4           4           5           4           5           4	0.09 0.45 0.07 U 0.26 U 11.30 U U 0.30 U	Date 08/17/202 09/10/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202	Low 1 0.09 1 0.06 1 0.02 1 U 1 0.25 1 U 1 4.84 1 U 1 U 1 U 1 0.17 1 U	08/ 08/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/	Date 17/2021 17/2021 17/2021 10/2021 10/2021 03/2021 10/2021 10/2021 03/2021 10/2021 03/2021 10/2021 10/2021 10/2021 10/2021	Average 0.09 0.23 0.05 U 0.25 U 7.52 U U 0.25 U U 0.25 U U 0.25 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	Samples           4           4           4           5           4           5           4	0.09 0.45 0.07 U 0.26 U 11.30 U U 0.30 U 0.11	Date 08/17/202 09/10/202 09/10/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202	Low 1 0.09 1 0.06 1 0.02 1 U 1 0.25 1 U 1 4.84 1 U 1 U 1 0.17 1 U 1 0.07	08/ 08/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/	Date 17/2021 17/2021 17/2021 10/2021 1	Average 0.09 0.23 0.05 U 0.25 U 7.52 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 0.25 0.23 0.05 0.23 0.05 0.23 0.05 0.23 0.25	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium,	Samples           4           4           4           5           4           5           4           4           4           5           4           4           4           4           4           4           4           4           5           5           5           5           5	0.09 0.45 0.07 U 0.26 U 11.30 U U 0.30 U 0.30 U 0.11 8.79	Date 08/17/202 09/10/202 09/10/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202	Low 1 0.09 1 0.06 1 0.02 1 U 1 0.25 1 U 1 4.84 1 U 1 U 1 0.17 1 U 1 0.17 1 U 1 0.7 1 6.73	08/ 08/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09	Date 17/2021 17/2021 17/2021 10/2021 1	Average 0.09 0.23 0.05 U 0.25 U 7.52 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 0 0.25 0 0.23 0.05 0.23 0.05 0.23 0.05 0.23 0.05 0.23 0.25 0.5	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese,	Samples           4           4           4           5           4           5           4           4           4           5           4           4           5           4           5           4           5           4           5           4           5           4           5           4           4           4           4           4           4           4           4           4           4           4           4           4           5           4	0.09 0.45 0.07 U 0.26 U 11.30 U U 0.30 U 0.11	Date 08/17/202 09/10/202 09/10/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202 09/03/202 11/12/202 08/17/202	Low 1 0.09 1 0.06 1 0.02 1 U 1 0.25 1 U 1 4.84 1 U 1 U 1 0.17 1 U 1 0.17 1 U 1 0.7 1 U 1 0.7 1 U 1 0.7 1 U 1 0.17 1 U 1 0.7 1 U 1 0.17 1 0.07 1 0.07 1 0.17 1 0.17 1 0.07 1	08/ 08/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09	Date 17/2021 17/2021 17/2021 10/2021 1	Average 0.09 0.23 0.05 U 0.25 U 7.52 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 0 0.25 0 0.25 0 0.25 0 0.25 0 0.25 0 0.25 0 0.25 0 0.25 0 0.25 0 0 0.25 0 0 0 0 0 0 0 0 0 0 0 0 0	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury,	Samples           4           4           4           5           4           5           4           4           4           5           4           4           5           4           5           4           5           4           4           4           4           4           4           4           4           4           4           4           4           4           4           4           4           4	0.09 0.45 0.07 U 0.26 U 11.30 U U 0.30 U 0.30 U 0.11 8.79 0.058 U	Date 08/17/202 09/10/202 09/10/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202 08/17/202 09/03/202 11/12/202 08/17/202	Low 1 0.09 1 0.06 1 0.02 1 U 1 0.25 1 U 1 4.84 1 U 1 U 1 0.17 1 U 1 0.17 1 U 1 0.7 1 U 1 0.7 1 U 1 U	08/ 08/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09	Date 17/2021 17/2021 17/2021 10/2021	Average 0.09 0.23 0.05 U 0.25 U 7.52 U 0.25 U 0.10 7.88 0.05 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury, Molybdenum,	Samples           4           4           4           5           4           5           4           4           4           5           4           4           5           4	0.09 0.45 0.07 U 0.26 U 11.30 U U 0.30 U 0.30 U 0.11 8.79 0.058	Date 08/17/202 09/10/202 09/10/202 08/17/202 08/10 00/10 00/100 00/100 00/10	Low 1 0.09 1 0.06 1 0.02 1 0.25 1 U 1 4.84 1 U 1 0.17 1 U 1 0.17 1 U 1 0.07 1 6.73 1 U 1 U 1 0.22	08/ 08/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09	Date 17/2021 17/2021 17/2021 10/2021 1	Average 0.09 0.23 0.05 U 0.25 U 7.52 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 0 0.25 0 0.25 0 0.25 0 0.25 0 0.25 0 0.25 0 0.25 0 0.25 0 0.25 0 0 0.25 0 0 0 0 0 0 0 0 0 0 0 0 0	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury, Molybdenum, Nickel, dissolved	Samples         4         4         4         5         4         5         4	0.09 0.45 0.07 U 0.26 U 11.30 U U 0.30 U 0.30 U 0.30 U 0.11 8.79 0.058 U 0.69 U	Date 08/17/202 09/10/202 09/10/202 08/17/202 0	Low 1 0.09 1 0.06 1 0.02 1 0.25 1 U 1 0.25 1 U 1 4.84 1 U 1 0.17 1 U 1 0.17 1 0.07 1 6.73 1 U 1 0.22 1 U 1 0.22 1 U 1 0.21 1 U 1 0.25 1 U 1 0.27 1 0.22 1 U 1 U	08/ 08/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09	Date 17/2021 17/2021 17/2021 10/2021 1	Average 0.09 0.23 0.05 U 0.25 U 7.52 U 0.25 U 0.10 7.88 0.05 U 0.50 U 0.55 U 0.55 U 0.55 U 0.55 U 0.55 U 0.55 U 0.55 U 0.55 U 0.55 U 0.55 U 0.55 U 0.55 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury, Molybdenum, Nickel, dissolved Potassium,	Samples         4         4         4         5         4         5         4         5         4         5         5	0.09 0.45 0.07 U 0.26 U 11.30 U U 0.30 U 0.30 U 0.11 8.79 0.058 U 0.69 U 30.30	Date 08/17/202 09/10/202 09/10/202 08/17/202 08/18/18/17/202 08/18/18/18/18/18/18/18/18/18/18/18/18/18	Low 1 0.09 1 0.02 1 0.25 1 0.25 1 0.25 1 0.25 1 0.25 1 0.17 1 4.84 1 0 1 0.17 1 0.17 1 0.17 1 0.07 1 6.73 1 0 1 0.22 1 0 1 0.22 1 0 1 0.22 1 0 1 0	08/ 08/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09	Date 17/2021 17/2021 17/2021 10/2021 1	Average 0.09 0.23 0.05 U 0.25 U 7.52 U 0.25 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury, Molybdenum, Nickel, dissolved Potassium, Selenium,	Samples         4         4         4         5         4         5         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         5         4         5         4         4         4         4         4         4         4         4         4         4         4         4         4         5         4	0.09 0.45 0.07 U 0.26 U 11.30 U 0.30 U 0.30 U 0.11 8.79 0.058 U 0.69 U 30.30 0.0028	Date 08/17/202 09/10/202 09/10/202 08/17/202 0	Low 1 0.09 1 0.02 1 0.02 1 0.25 1 0 1 0.25 1 0 1 4.84 1 0 1 0.17 1 0.17 1 0.17 1 0.07 1 6.73 1 0 1 0.22 1 0 1 0 1 0.22 1 0 1 0	08/ 08/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09	Date 17/2021 17/2021 17/2021 10/2021 1	Average 0.09 0.23 0.05 U 0.25 U 7.52 U 0.25 U 0.50 U 0.261 0.00119	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury, Molybdenum, Nickel, dissolved Potassium, Selenium, Silica, dissolved	Samples         4         4         4         5         4         5         4         4         4         4         4         4         4         4         4         4         4         4         5         4         4         5         4         5         4         5         4         5         4         5         4         5         5	0.09 0.45 0.07 U 0.26 U 11.30 U 0.30 U 0.30 U 0.11 8.79 0.058 U 0.69 U 30.30 0.0028 13.40	Date 08/17/202 09/10/202 09/10/202 08/17/202 0	Low 1 0.09 1 0.02 1 0.02 1 0.25 1 0 1 0.25 1 0 1 4.84 1 0 1 0.17 1 0.17 1 0.17 1 0.17 1 0.07 1 6.73 1 0 1 0.22 1 0 1 0 1 0.22 1 0 1 0	08/ 08/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09	Date 17/2021 17/2021 17/2021 10/2021 1	Average 0.09 0.23 0.05 U 0.25 U 7.52 U 0.25 0.25 U 0.25 0.2	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury, Molybdenum, Nickel, dissolved Potassium, Selenium, Silica, dissolved	Samples           4           4           4           5           4           5           4           5           4           5           4           4           4           4           4           4           4           4           5           4           5           4           5           4           5           4           5           4           5           5           5           5           5           5	0.09 0.45 0.07 U 0.26 U 11.30 U 0.30 U 0.30 U 0.11 8.79 0.058 U 0.69 U 30.30 0.0028 13.40 342	Date 08/17/202 09/10/202 09/10/202 08/17/202 08/100 00/100 00/100	Low 1 0.09 1 0.02 1 0.02 1 0.25 1 0 1 0.25 1 0 1 4.84 1 0 1 0.17 1 0.17 1 0.17 1 0.17 1 0.07 1 6.73 1 0 1 0.22 1 0 1 0	08/ 08/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09	Date 17/2021 17/2021 17/2021 10/2021 1	Average 0.09 0.23 0.05 U 0.25 U 7.52 U 0.25 0 0.25 0 0 0.25 0 0 0.25 0 0 0 0 0 0 0 0 0 0 0 0 0	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium, Calcium, Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury, Molybdenum, Nickel, dissolved Potassium, Selenium, Silica, dissolved	Samples         4         4         4         5         4         5         4         4         4         4         4         4         4         4         4         4         4         4         5         4         4         5         4         5         4         5         4         5         4         5         4         5         5	0.09 0.45 0.07 U 0.26 U 11.30 U 0.30 U 0.30 U 0.11 8.79 0.058 U 0.69 U 30.30 0.0028 13.40	Date 08/17/202 09/10/202 09/10/202 08/17/202 0	Low 1 0.09 1 0.02 1 0.25 1 0 1 0.25 1 0 1 0.25 1 0 1 0.25 1 0 1 0.25 1 0 1 0.25 1 0 1 0.17 1 0.07 1 0.07 1 0.22 1 0 1 0.22 1 0 1 0.22 1 0 1 0.22 1 0 1 0.22 1 0 1 0.77 1 0.75 1 0.75 1 0	08/ 08/ 08/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09/ 09	Date 17/2021 17/2021 17/2021 10/2021 1	Average 0.09 0.23 0.05 U 0.25 U 7.52 U 0.25 0.25 U 0.25 0.2	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Table 18: AG-2 Annual A-Groove Aquifer

DAUB & ASSOCIATES, INC. DIFFERENCE CONTRACTOR



Parameters	No. of					_			
Wet Chemistry	Samples		High	Da	ate	Low	Date	Average	Units
Bicarbonate as	61		1,250.00	03/2	2/1993	34.00	09/08/1993	282.81	mg/l
Carbonate as	61		870.00		2/1993		06/30/2009	256.27	mg/l
Total Alkalinity as	61		2,120.00		2/1993		06/14/2008	495.21	mg/l
Bromide	32		2.70		9/2011	0.07	05/26/2000	0.62	mg/l
Cation-Anion	59		13.30		6/2014		03/22/2016	1.75	%
Sum of Anions	59		19.49		6/1991	9.50	05/29/2003	13.24	meq/l
Sum of Cations	59		18.34		<u>6/1991</u>	9.50	05/26/2004	13.77	meq/l
Chemical Oxygen	30		1,300.00		9/2002	12.00	03/15/2022	417.35	mg/l
Chloride	61		252.00		4/2008	21.00	12/20/1993	113.06	mg/l
Conductivity, Lab	60		3,320.00			1,010.00	05/29/2003	1,513.17	<u>µmhos</u>
Fluoride	61		27.00		<u>9/1995</u>	2.20	09/15/1992	9.37	mg/l
Hardness as	<u>61</u> 32		962.00		2/1993		01/19/1994	33.65	mg/l
<u>Nitrate as N,</u> Nitrate/Nitrite as N,	32		3.89 3.90		<u>4/2008</u> 4/2008	0.02 0.02	09/15/1992 09/15/1992	0.43	mg/l mg/l
Nitrite as N,	32		0.05		<u>4/2008</u> 6/2014		06/18/1992	0.02	mg/l
Nitrogen, Ammonia	32		21.30		8/1993		08/23/2017	3.53	mg/l
Nitrogen, Organic	32		104.00		9/2002	0.20	08/23/2017	17.23	mg/l
Nitrogen, Total	32		104.00		<u>9/2002</u> 9/2002	0.40	04/22/2019	18.69	mg/l
pH, lab	60		11.90		6/1992	8.60	06/30/2009	10.16	units
Phosphate, total	32		155.00	07/2	9/2009	0.03	05/26/1999	6.50	mg/l
Phosphorus, total	32		2.95		7/1990		05/26/1999	0.24	mg/l
SAR in Water	52		190.00	11/1	4/1997	3.83	03/25/1992	63.71	none
Sulfate	61		360.00		6/1991	0.80	02/26/1997	31.18	mg/l
Sulfide	32		29.00	03/22	2/2016	0.02	09/15/1992	4.40	mg/l
Total Dissolved	60		2,752.00		2/1993		09/27/1990	846.61	mg/l
Conductivity, Field	79		3,910.00	07/2	9/2009	694.00	06/01/2005	1,588.34	µmhos
pH, Field	78		12.90		3/1995		09/16/2019	10.61	units
	Temperature (°C),	39	22.50	06/0	1/2005	7.00	07/01/1991	12.42	units (°C)
pH, Field Water Level, Field		39 494.90		06/0	1/2005		07/01/1991		
Water Level, Field	Temperature (°C), 66	494.90	22.50	06/0	1/2005	7.00	07/01/1991 90 436.10	12.42 Ft.	
Water Level, Field Parameters	Temperature (°C), 66 <b>No. of</b>		22.50	06/0 22 4	1/2005	7.00	07/01/1991	12.42	
Water Level, Field Parameters Metals	Temperature (°C), 66 No. of Samples	494.90 High	22.50 09/08/20 Date	06/0 22 4	<u>1/2005</u> 09.63 Low	7.00 11/01/199 <b>Date</b>	07/01/1991 90 436.10 Average	12.42 Ft.	
Water Level, Field Parameters Metals Aluminum,	Temperature (°C), 66 No. of Samples 32	494.90 High 1.35	22.50 09/08/20 <b>Date</b> 11/06/20	06/0 22 4 14	1/2005 09.63 Low	7.00 11/01/199 <b>Date</b> 08/23/20	07/01/1991 90 436.10 Average 17 0.22	12.42 Ft. Units mg/l	
Water Level, Field Parameters Metals Aluminum, Arsenic, dissolved	Temperature (°C), 66 No. of Samples 32 32	494.90 High 1.35 0.01	22.50 09/08/20 <b>Date</b> 11/06/20 08/23/20	06/0 22 4 14 17 0	1/2005 09.63 Low 0.03 0.0004	7.00 11/01/199 <b>Date</b> 08/23/20 03/15/202	07/01/1991 90 436.10 Average 17 0.22 22 0.0029	12.42           Ft.           Units           mg/l	
Water Level, Field Parameters Metals Aluminum, Arsenic, dissolved Barium, dissolved	Temperature (°C), 66 No. of Samples 32 32 32 32	494.90 High 1.35	22.50 09/08/20 <b>Date</b> 11/06/20 08/23/20 07/29/20	06/0 22 4 14 17 0 09	1/2005 09.63 Low	7.00 11/01/199 <b>Date</b> 08/23/20 03/15/20 09/08/199	07/01/1991 90 436.10 Average 17 0.22 22 0.0029 93 0.05	12.42           Ft.           Units           mg/l           mg/l	
Water Level, Field Parameters Metals Aluminum, Arsenic, dissolved	Temperature (°C), 66 No. of Samples 32 32	494.90 High 1.35 0.01 0.20	22.50 09/08/20 <b>Date</b> 11/06/20 08/23/20	06/0 22 4 14 17 0 09 22	<u>1/2005</u> 09.63 <b>Low</b> 0.03 0.0004 U	7.00 11/01/199 <b>Date</b> 08/23/20 03/15/202	07/01/1991 90 436.10 Average 17 0.22 22 0.0029 93 0.05 04 U	12.42           Ft.           Units           mg/l	
Water Level, Field Parameters Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium,	No. of           32           32           32           32           32           32           32           32           32           32           32           32           32	494.90 High 1.35 0.01 0.20 U 0.47 U	22.50 09/08/20 <b>Date</b> 11/06/20 08/23/20 07/29/20 03/15/20 12/20/19 03/15/20	06/0 22 4 14 17 0 09 22 93 22	1/2005 09.63 Low 0.03 0.0004 U U	7.00 11/01/199 <b>Date</b> 08/23/20 03/15/20 09/08/199 05/26/20	07/01/1991           90         436.10           Average           17         0.22           22         0.0029           93         0.05           04         U           20         0.22           04         U           20         0.22           04         U	12.42 Ft. Units mg/l mg/l mg/l	
Water Level, Field Parameters Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved	No. of           32           32           32           32           32           32           32           32           32           32           32           32           32           61           32           61           32           61	494.90 High 1.35 0.01 0.20 U 0.47	22.50 09/08/20 <b>Date</b> 11/06/20 08/23/20 07/29/20 03/15/20 12/20/19	06/0 22 4 14 17 0 09 22 93 22	1/2005 09.63 Low 0.03 0.0004 U U 0.04	7.00 11/01/199 <b>Date</b> 08/23/20 03/15/20 09/08/199 05/26/200 03/09/20	07/01/1991           90         436.10           Average           17         0.22           22         0.0029           93         0.05           04         U           20         0.22           04         U           20         0.22           04         U	12.42 Ft. Units mg/l mg/l mg/l mg/l	
Water Level, Field Parameters Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium, Calcium, dissolved Chromium,	Temperature (°C), 66 No. of Samples 32 32 32 32 61 32 61 32 61 32	494.90 High 1.35 0.01 0.20 U 0.47 U 27.50 0.02	22.50 09/08/20 Date 11/06/20 08/23/20 07/29/20 03/15/20 12/20/19 03/15/20 06/30/20 11/06/20	06/0 22 4 14 17 0 09 22 93 22 09 14	1/2005 09.63 Low 0.03 0.0004 U 0.04 U 0.04 U 0.20 0.01	7.00 11/01/199 <b>Date</b> 08/23/20 03/15/20 09/08/199 05/26/200 03/09/20 05/26/200 11/14/199 06/23/199	07/01/1991           90         436.10           436.10         436.10           40         436.10           40         436.10           40         0.22           20         0.029           93         0.05           04         U           20         0.22           04         U           20         0.22           04         U           07         4.15           04         0.01	12.42 Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l	
Water Level, Field Parameters Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium, Calcium, dissolved Chromium, Copper, dissolved	Temperature (°C), 66 No. of Samples 32 32 32 61 32 61 32 61 32 61 32 32	494.90 High 1.35 0.01 0.20 U 0.47 U 27.50 0.02 0.04	22.50 09/08/20 Date 11/06/20 08/23/20 07/29/20 03/15/20 12/20/19 03/15/20 06/30/20 11/06/20 07/29/20	06/0 22 4 14 17 0 09 22 93 22 09 14 09	1/2005 09.63 <b>Low</b> 0.03 0.004 U U 0.04 U 0.20 0.01 0.01	7.00 11/01/199 <b>Date</b> 08/23/20 03/15/20 09/08/199 05/26/200 03/09/20 05/26/200 11/14/199 06/23/199 07/30/199	07/01/1991           90         436.10           90         436.10           90         436.10           90         436.10           90         436.10           91         0.22           93         0.029           93         0.05           94         U           90         0.22           94         U           97         4.15           94         0.01           91         0.03	12.42 Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l	
Water Level, Field Parameters Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium, Calcium, dissolved Chromium, Copper, dissolved Iron, dissolved	Temperature (°C), 66 No. of Samples 32 32 32 61 32 61 32 61 32 61 32 61 32 32 32 32 32	494.90 High 1.35 0.01 0.20 U 0.47 U 27.50 0.02 0.04 65.10	22.50 09/08/20 Date 11/06/20 08/23/20 07/29/20 03/15/20 12/20/19 03/15/20 06/30/20 11/06/20 07/29/20 11/06/20	06/0 22 4 14 17 0 09 22 93 22 09 14 09 14	1/2005 09.63 <b>Low</b> 0.03 0.004 U U 0.04 U 0.20 0.01 0.01	7.00 11/01/199 <b>Date</b> 08/23/20 03/15/20 09/08/199 05/26/200 03/09/20 05/26/200 11/14/199 06/23/199 07/30/199 06/30/199	07/01/1991           90         436.10           Average           17         0.22           22         0.0029           93         0.05           04         U           20         0.22           04         U           97         4.15           94         0.01           91         0.03           95         3.03	12.42 Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l	
Water Level, Field Parameters Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium, Calcium, dissolved Chromium, Copper, dissolved Iron, dissolved Lead, dissolved	Temperature (°C), 66 No. of Samples 32 32 32 61 32 61 32 61 32 61 32 61 32 32 32 32 32 32	494.90 High 1.35 0.01 0.20 U 0.47 U 27.50 0.02 0.04 65.10 0.63	22.50 09/08/20 Date 11/06/20 08/23/20 07/29/20 03/15/20 12/20/19 03/15/20 06/30/20 11/06/20 07/29/20 11/06/20 09/15/20	06/0 22 4 14 17 0 09 22 93 22 09 14 09 14 09 14 10	1/2005 09.63 0.03 0.004 U U 0.04 U 0.20 0.01 0.01 0.01 0.02	7.00 11/01/199 <b>Date</b> 08/23/20 03/15/20 03/08/199 05/26/200 03/09/20 05/26/200 11/14/199 06/23/199 07/30/199 06/30/199 06/23/199	07/01/1991           90         436.10           Average           17         0.22           22         0.0029           93         0.05           04         U           20         0.22           04         U           97         4.15           94         0.01           91         0.03           95         3.03           94         0.14	12.42 Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l	
Water Level, Field Parameters Metals Aluminum, Arsenic, dissolved Barium, dissolved Beryllium, Boron, dissolved Cadmium, Calcium, dissolved Chromium, Copper, dissolved Iron, dissolved Lead, dissolved	Temperature (°C), 66 No. of Samples 32 32 32 61 32 61 32 61 32 61 32 61 32 32 32 32 32 32 32 32 32	494.90 High 1.35 0.01 0.20 U 0.47 U 27.50 0.02 0.04 65.10 0.63 0.17	22.50 09/08/20 Date 11/06/20 08/23/20 07/29/20 03/15/20 12/20/19 03/15/20 06/30/20 11/06/20 07/29/20 11/06/20 09/15/20 09/27/19	06/0 22 4 14 17 0 09 22 93 22 09 14 09 14 09 14 10 90	1/2005 09.63 0.03 0.0004 U U 0.04 U 0.20 0.01 0.01 0.01 0.02 0.02	7.00 11/01/199 <b>Date</b> 08/23/20 03/15/20 03/08/199 05/26/200 03/09/20 05/26/200 11/14/199 06/23/199 06/23/199 06/30/199 06/30/199 06/23/199	07/01/1991           90         436.10           Average           17         0.22           22         0.0029           93         0.05           04         U           20         0.22           04         U           97         4.15           94         0.01           91         0.03           95         3.03           94         0.14           21         0.06	12.42           Ft.           Units           mg/l	
Water Level, Field Parameters Metals Aluminum, Arsenic, dissolved Barium, dissolved Barium, dissolved Cadmium, Calcium, dissolved Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium,	Temperature (°C),         66           No. of         Samples           32         32           32         32           32         61           32         61           32         32           61         32           32         32	494.90 High 1.35 0.01 0.20 U 0.47 U 27.50 0.02 0.04 65.10 0.63 0.17 5.00	22.50 09/08/20 Date 11/06/20 08/23/20 07/29/20 03/15/20 06/30/20 11/06/20 07/29/20 11/06/20 09/15/20 09/27/19 09/27/19	06/0 22 4 14 17 0 09 22 93 22 09 14 09 14 09 14 10 90 90	1/2005 09.63 0.03 0.004 U U 0.04 U 0.04 U 0.20 0.01 0.01 0.01 0.02 0.02 U	7.00 11/01/199 Date 08/23/20 03/15/20 03/08/199 05/26/200 03/09/20 05/26/200 11/14/199 06/23/199 06/23/199 06/30/199 06/30/199 06/30/199 06/23/199 06/23/199 06/23/199	07/01/1991           90         436.10           Average           17         0.22           22         0.0029           93         0.05           04         U           20         0.22           04         U           97         4.15           94         0.01           91         0.03           95         3.03           94         0.14           21         0.06           05         1.44	12.42           Ft.           Units           mg/l	
Water Level, Field Parameters Metals Aluminum, Arsenic, dissolved Barium, dissolved Barium, dissolved Cadmium, Calcium, dissolved Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese,	Temperature (°C),         66           No. of         Samples           32         32           32         32           32         61           32         61           32         32           61         32           32         32           32         32           32         32           32         32           32         32           32         32           32         32           32         32           32         32           32         32           32         32           32         32           32         32	494.90 High 1.35 0.01 0.20 U 0.47 U 27.50 0.02 0.04 65.10 0.63 0.17 5.00 0.59	22.50 09/08/20 <b>Date</b> 11/06/20 08/23/20 07/29/20 03/15/20 06/30/20 11/06/20 07/29/20 11/06/20 09/15/20 09/27/19 09/27/19 11/06/20	06/0 22 4 14 17 0 09 22 93 22 93 22 09 14 09 14 10 90 90 14	1/2005 09.63 0.03 0.0004 U U 0.004 U 0.004 U 0.20 0.01 0.01 0.01 0.02 0.02 U 0.02	7.00 11/01/199 Date 08/23/20 03/15/20 03/08/199 05/26/200 03/09/20 05/26/200 11/14/199 06/23/199 06/23/199 06/30/199 06/30/199 06/23/199 06/23/199 06/23/199 06/23/199 06/23/199	07/01/1991           90         436.10           Average           17         0.22           22         0.0029           93         0.05           04         U           20         0.22           04         U           97         4.15           94         0.01           91         0.03           95         3.03           94         0.14           21         0.06           05         1.44           09         0.06	12.42           Ft.           Units           mg/l	
Water Level, Field Parameters Metals Aluminum, Arsenic, dissolved Barium, dissolved Barium, dissolved Cadmium, Calcium, dissolved Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury, dissolved	Temperature (°C),         66           No. of         Samples           32         32           32         32           32         61           32         32           61         32           32         61           32         61           32         61           32         61           32         32           32         32           32         32           32         32           32         32           32         32           32         32           32         32	494.90 High 1.35 0.01 0.20 U 0.47 U 27.50 0.02 0.04 65.10 0.63 0.17 5.00 0.59 0.0007	22.50 09/08/20 <b>Date</b> 11/06/20 08/23/20 07/29/20 03/15/20 06/30/20 11/06/20 07/29/20 11/06/20 09/15/20 09/27/19 09/27/19 11/06/20 07/30/19	06/0 22 4 14 17 0 09 22 93 22 93 22 09 14 09 14 10 90 14 10 90 14 90 14 90 14 90	1/2005 09.63 0.03 0.0004 U U 0.04 U 0.20 0.01 0.01 0.01 0.02 0.02 U 0.02 U 0.01 0.02	7.00 11/01/199 Date 08/23/20 03/15/20 09/08/199 05/26/200 03/09/20 05/26/200 11/14/199 06/23/199 06/23/199 06/30/199 06/30/199 06/30/199 06/23/199 06/23/199 06/23/199 06/23/199 06/23/199 06/23/199 06/23/199 06/23/199 06/23/199 06/23/199 06/23/199	07/01/1991           90         436.10           Average           17         0.22           22         0.0029           93         0.05           04         U           20         0.22           04         U           97         4.15           94         0.01           91         0.03           95         3.03           94         0.14           21         0.06           90         0.004	12.42           Ft.           Units           mg/l	
Water Level, Field Parameters Metals Aluminum, Arsenic, dissolved Barium, dissolved Barium, dissolved Cadmium, Calcium, dissolved Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury, dissolved Molybdenum,	Temperature (°C),         66           No. of         Samples           32         32           32         32           32         61           32         61           32         32           61         32           32         61           32         61           32         32           32         32           32         32           32         32           32         32           32         32           32         32           32         32           32         32           32         32           32         32	494.90           High           1.35           0.01           0.20           U           0.47           U           27.50           0.02           0.04           65.10           0.63           0.17           5.00           0.59           0.0007           0.13	22.50 09/08/20 <b>Date</b> 11/06/20 08/23/20 07/29/20 03/15/20 06/30/20 11/06/20 07/29/20 11/06/20 09/15/20 09/27/19 09/27/19 11/06/20 07/30/19	06/0           22         4           14         17           17         0           93         22           93         22           09         14           10         90           14         10           90         14           10         90           14         0           90         14           90         0           14         0           90         14           91         0	1/2005 09.63 0.03 0.0004 U U 0.04 U 0.20 0.01 0.01 0.01 0.02 U 0.02 U 0.01 0.02 0.02 U 0.01 0.01 0.001 0.001	7.00 11/01/199 Date 08/23/20 03/15/20 03/08/199 05/26/200 03/09/20 05/26/200 11/14/199 06/23/199 06/23/199 06/30/199 06/30/199 06/23/199 06/23/199 06/23/199 06/23/199 06/23/199 05/24/200 07/29/200 09/27/199	07/01/1991           90         436.10           Average           17         0.22           22         0.0029           93         0.05           04         U           20         0.22           04         U           97         4.15           94         0.01           91         0.03           95         3.03           94         0.14           21         0.06           05         1.44           09         0.0004           01         0.05	12.42           Ft.           Units           mg/l	
Water Level, Field Parameters Metals Aluminum, Arsenic, dissolved Barium, dissolved Barium, dissolved Cadmium, Calcium, dissolved Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury, dissolved Molybdenum, Nickel, dissolved	Temperature (°C),         66           No. of         Samples           32         32           32         32           32         61           32         32           61         32           32         61           32         32           61         32           32         32           32         32           32         32           32         32           32         32           32         32           32         32           32         32           32         32           32         32           32         32           32         32	494.90 High 1.35 0.01 0.20 U 0.47 U 27.50 0.02 0.04 65.10 0.63 0.17 5.00 0.59 0.0007 0.13 0.03	22.50 09/08/20 Date 11/06/20 08/23/20 07/29/20 03/15/20 06/30/20 11/06/20 07/29/20 11/06/20 09/15/20 09/27/19 09/27/19 09/27/19 11/06/20 07/30/19 05/24/20 09/15/19	06/0           22         4           14         17           07         02           93         22           09         14           10         90           14         10           90         14           10         90           14         0           90         14           90         14           90         14           90         14           90         14           91         0           92         92	1/2005 09.63 0.03 0.0004 U U 0.04 U 0.20 0.01 0.01 0.01 0.02 U 0.02 U 0.01 0.01 0.01 0.001 0.01 0.01	7.00 11/01/199 Date 08/23/20 03/15/20 09/08/199 05/26/200 03/09/20 05/26/200 11/14/199 06/23/199 06/23/199 06/30/199 06/30/199 06/30/199 06/23/199 06/23/199 06/23/199 06/23/199 05/24/200 07/29/200 09/27/199 05/09/200	07/01/1991           90         436.10           Average           17         0.22           22         0.0029           93         0.05           04         U           20         0.22           04         U           97         4.15           94         0.01           91         0.03           95         3.03           94         0.14           21         0.06           05         1.44           09         0.0004           01         0.05           16         0.01	12.42           Ft.           Units           mg/l	
Water Level, Field Parameters Metals Aluminum, Arsenic, dissolved Barium, dissolved Barium, dissolved Cadmium, Calcium, dissolved Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lead, dissolved Magnesium, Manganese, Mercury, dissolved Molybdenum, Nickel, dissolved Potassium,	Temperature (°C),         66           No. of         Samples           32         32           32         32           32         61           32         32           61         32           32         61           32         61           32         32	494.90 High 1.35 0.01 0.20 U 0.47 U 27.50 0.02 0.04 65.10 0.63 0.17 5.00 0.63 0.17 5.00 0.59 0.0007 0.13 0.03 39.00	22.50 09/08/20 <b>Date</b> 11/06/20 08/23/20 07/29/20 03/15/20 06/30/20 11/06/20 07/29/20 11/06/20 09/15/20 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19	06/0           22         4           14         17           17         0           93         22           93         22           93         14           10         90           14         10           90         14           90         14           90         93           93         90           14         90           90         93	1/2005 09.63 0.03 0.0004 U U 0.04 U 0.20 0.01 0.01 0.01 0.02 U 0.01 0.02 0.02 U 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.	7.00 11/01/199 Date 08/23/20 03/15/20 09/08/199 05/26/200 03/09/20 05/26/200 11/14/199 06/23/199 06/23/199 06/30/199 06/30/199 06/30/199 06/30/199 06/23/199 06/23/199 06/23/199 05/24/200 07/29/200 09/27/199 05/09/200 03/02/200	07/01/1991           90         436.10           Average           17         0.22           22         0.0029           93         0.05           04         U           20         0.22           04         U           97         4.15           94         0.01           97         3.03           94         0.14           21         0.06           05         1.44           09         0.004           01         0.05           1.44         0.01           25         1.44           09         0.0004           01         0.05           16         0.01	12.42           Ft.           Units           mg/l	
Water Level, Field Parameters Metals Aluminum, Arsenic, dissolved Barium, dissolved Barium, dissolved Cadmium, Calcium, dissolved Chromium, Copper, dissolved Iron, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury, dissolved Molybdenum, Nickel, dissolved Potassium, Selenium,	Temperature (°C),         66           No. of         Samples           32         32           32         32           32         61           32         32           61         32           32         61           32         32	494.90 High 1.35 0.01 0.20 U 0.47 U 27.50 0.02 0.04 65.10 0.63 0.17 5.00 0.59 0.0007 0.13 0.03 39.00 0.001	22.50 09/08/20 <b>Date</b> 11/06/20 08/23/20 07/29/20 03/15/20 03/15/20 06/30/20 11/06/20 07/29/20 11/06/20 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19	06/0           22         4           14         17           09         22           93         22           09         14           10         90           14         09           14         09           14         09           14         09           90         14           90         90           14         90           93         90           93         91           93         91	1/2005 09.63 0.03 0.0004 U 0.004 U 0.04 0.01 0.01 0.01 0.02 0.02 U 0.01 0.01 0.01 0.01 0.01 0.01 0.02 0.02 U 0.01 0.01 0.02 0.02 U 0.01 0.01 0.01 0.01 0.01 0.01 0.02 0.01 0.02 0.01 0.00 0.01 0.00 0.01 0.01 0.01 0.01 0.00 0.01 0.00 0.01 0.01 0.00 0.01 0.00 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.00 0.01 0.01 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.0	7.00 11/01/199 Date 08/23/20 03/15/20 03/15/20 05/26/20 03/09/20 05/26/20 05/26/20 05/26/20 05/26/20 05/26/20 05/26/20 06/30/199 06/30/199 06/30/199 06/30/199 06/30/199 06/23/199 06/23/199 06/23/199 05/24/20 07/29/20 03/08/20 03/22/20 03/08/20 03/22/20	07/01/1991           90         436.10           Average           17         0.22           22         0.0029           93         0.05           04         U           20         0.22           04         U           21         0.03           25         3.03           24         0.14           21         0.06           20         0.0004           21         0.01           21         5.81           18         0.0008	12.42         Ft.         Units         mg/l         mg/l      <	
Water Level, Field Parameters Metals Aluminum, Arsenic, dissolved Barium, dissolved Barium, dissolved Cadmium, Boron, dissolved Cadmium, Calcium, dissolved Chromium, Copper, dissolved Iron, dissolved Iron, dissolved Lead, dissolved Magnesium, Manganese, Mercury, dissolved Molybdenum, Nickel, dissolved Potassium, Selenium, Silica, dissolved	Temperature (°C),         66           No. of         Samples           32         32           32         32           32         32           32         32           61         32           32         32           61         32           32         32           61         32	494.90 High 1.35 0.01 0.20 U 0.47 U 27.50 0.02 0.04 65.10 0.63 0.17 5.00 0.59 0.0007 0.13 0.03 39.00 0.001 44.60	22.50 09/08/20 <b>Date</b> 11/06/20 08/23/20 07/29/20 03/15/20 03/15/20 06/30/20 11/06/20 07/29/20 11/06/20 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 00/27/19 00/27/19 00/20/19 00/20/19 00/20/19 00/20/19	06/0           22         4           14         17           09         22           93         22           09         14           10         90           14         09           14         09           14         09           14         09           90         14           90         90           14         0           90         14           91         0           92         93           91         0           92         93	1/2005 09.63 0.03 0.0004 U 0.04 U 0.04 0.01 0.01 0.01 0.02 0.02 U 0.01 0.01 0.01 0.01 0.02 0.02 U 0.01 0.01 0.01 0.02 0.02 U 0.01 0.01 0.01 0.01 0.02 0.02 U 0.01 0.02 0.01 0.01 0.01 0.02 0.01 0.02 0.01 0.01 0.01 0.01 0.01 0.00 0.01 0	7.00 11/01/199 Date 08/23/20 03/15/20 03/15/20 03/08/199 05/26/20 03/09/20 05/26/20 05/26/20 05/26/20 05/26/20 06/30/199 06/30/199 06/30/199 06/30/199 06/30/199 06/23/199 06/23/199 06/23/199 06/23/199 05/24/200 07/29/200 03/08/202 03/08/202 03/08/202 03/08/202	07/01/1991           90         436.10           Average           17         0.22           22         0.0029           33         0.05           04         U           20         0.22           04         U           20         0.03           20         1.44           20         0.0004           21         0.81           20         0.0008           20         15.84	12.42         Ft.         units         mg/l         mg/l      <	
Water Level, Field Parameters Metals Aluminum, Arsenic, dissolved Barium, dissolved Barium, dissolved Cadmium, Boron, dissolved Cadmium, Calcium, dissolved Chromium, Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, Manganese, Mercury, dissolved Molybdenum, Nickel, dissolved Potassium, Selenium, Silica, dissolved Sodium, dissolved	Temperature (°C),         66           No. of         Samples           32         32           32         32           32         32           32         32           32         32           32         32           61         32           32         32           61         32           61         61	494.90 High 1.35 0.01 0.20 U 0.47 U 27.50 0.02 0.04 65.10 0.63 0.17 5.00 0.59 0.0007 0.13 0.03 39.00 0.001 44.60 567.00	22.50 09/08/20 <b>Date</b> 11/06/20 08/23/20 07/29/20 03/15/20 03/15/20 06/30/20 11/06/20 07/29/20 11/06/20 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 00/22/19 03/22/19 03/22/19	06/0           22         4           14         17           09         22           93         22           09         14           10         90           14         09           14         09           14         09           14         09           90         14           90         93           91         0           92         93           93         0           92         93           93         1	1/2005 09.63 0.03 0.0004 U 0.04 U 0.04 0.01 0.01 0.01 0.01 0.01 0.02 0.02 U 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.02 0.02 U 0.01 0.01 0.01 0.01 0.02 0.02 U 0.001 0.01 0.01 0.01 0.02 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.02 0.02 0.01 0.02 0.01 0.02 0.02 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.01 0.01 0.01 0.01 0.01 0.02 0.02 0.01 0.02 0.01 0.02 0.01 0.01 0.01 0.02 0.02 0.01 0.01 0.02 0.02 0.01 0.01 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.01 0.02 0.0	7.00 11/01/199 Date 08/23/20 03/15/20 03/15/20 05/26/20 03/09/20 05/26/20 05/26/20 05/26/20 05/26/20 05/26/20 05/24/20 05/24/20 05/24/20 05/24/20 05/24/20 05/24/20 05/24/20 05/24/20 03/08/20 03/22/20 03/08/20 03/22/20 03/09/20 03/22/20	07/01/1991           90         436.10           Average           17         0.22           22         0.0029           93         0.05           04         U           20         0.22           04         U           20         0.22           04         U           20         0.22           04         U           27         4.15           94         0.01           91         0.03           95         3.03           94         0.14           21         0.06           05         1.44           09         0.06           90         0.0004           01         0.05           16         0.01           21         5.81           18         0.0008           20         15.84           92         303.77	12.42         Ft.         units         mg/l         mg/l      <	
Water Level, Field Parameters Metals Aluminum, Arsenic, dissolved Barium, dissolved Barium, dissolved Cadmium, Boron, dissolved Cadmium, Calcium, dissolved Chromium, Copper, dissolved Iron, dissolved Iron, dissolved Lead, dissolved Magnesium, Manganese, Mercury, dissolved Molybdenum, Nickel, dissolved Potassium, Selenium, Silica, dissolved	Temperature (°C),         66           No. of         Samples           32         32           32         32           32         32           32         32           61         32           32         32           61         32           32         32           61         32	494.90 High 1.35 0.01 0.20 U 0.47 U 27.50 0.02 0.04 65.10 0.63 0.17 5.00 0.59 0.0007 0.13 0.03 39.00 0.001 44.60	22.50 09/08/20 <b>Date</b> 11/06/20 08/23/20 07/29/20 03/15/20 03/15/20 06/30/20 11/06/20 07/29/20 11/06/20 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 09/27/19 00/27/19 00/27/19 00/20/19 00/20/19 00/20/19 00/20/19	06/0           22         4           14         17           09         22           93         22           09         14           10         90           14         09           14         09           14         09           14         09           90         14           90         93           91         0           92         93           93         1           92         1           93         1	1/2005 09.63 0.03 0.0004 U 0.04 U 0.04 0.01 0.01 0.01 0.02 0.02 U 0.01 0.01 0.01 0.01 0.02 0.02 U 0.01 0.01 0.01 0.02 0.02 U 0.01 0.01 0.01 0.01 0.02 0.02 U 0.01 0.02 0.01 0.01 0.01 0.02 0.01 0.02 0.01 0.01 0.01 0.01 0.01 0.00 0.01 0	7.00 11/01/199 Date 08/23/20 03/15/20 03/15/20 03/08/199 05/26/20 03/09/20 05/26/20 05/26/20 05/26/20 05/26/20 06/30/199 06/30/199 06/30/199 06/30/199 06/30/199 06/23/199 06/23/199 06/23/199 06/23/199 05/24/200 07/29/200 03/08/202 03/08/202 03/08/202 03/08/202	07/01/1991           90         436.10           Average           17         0.22           22         0.0029           93         0.05           04         U           20         0.22           04         U           20         0.22           04         U           27         4.15           94         0.01           91         0.03           95         3.03           94         0.14           21         0.06           05         1.44           09         0.06           90         0.0004           01         0.05           16         0.01           21         5.81           18         0.0008           20         15.84           92         303.77           94         0.32	12.42         Ft.         units         mg/l         mg/l      <	

#### Table 19: MMC-IRI-4 Annual A-Groove Aquifer

DAUB & ASSOCIATES, INC. ATT. AT. State Contraction and



Develop a ferra	NI			[		1	
Parameters Wet Chemistry	No. of Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3	1	528.00	10/05/2014	528.00	10/05/2014	528.00	mg/l
Carbonate as CaCO3	1	51.40	10/05/2014	51.40	10/05/2014	51.40	mg/l
Total Alkalinity as CaCO3	1	579.00	10/05/2014	579.00	10/05/2014	579.00	mg/l
Bromide	1	U	10/05/2014	U	10/05/2014	U	mg/l
Cation-Anion Balance	1	-3.70	10/05/2014	-3.70	10/05/2014	-3.70	%
Sum of Anions	1	14.00	10/05/2014	14.00	10/05/2014	14.00	meq/l
Sum of Cations	1	13.00	10/05/2014	13.00	10/05/2014	13.00	meq/l
Chemical Oxygen Demand	1	U	10/05/2014	U	10/05/2014	U	mg/l
Chloride	1	18.60	10/05/2014	18.60	10/05/2014	18.60	mg/l
Conductivity, Lab	1	1,270.00	10/05/2014	1,270.00	10/05/2014	1,270.00	µmhos
Fluoride	1	16.40	10/05/2014	16.40	10/05/2014	16.40	mg/l
Hardness as CaCO3	1	46.00	10/05/2014	46.00	10/05/2014	46.00	mg/l
Nitrate as N, dissolved	1	U	10/05/2014	U	10/05/2014	U	mg/l
Nitrate/Nitrite as N,	1	U	10/05/2014	U	10/05/2014	U	mg/l
Nitrite as N, dissolved	1	U	10/05/2014	U	10/05/2014	U	mg/l
Nitrogen, Ammonia	1	0.40	10/05/2014	0.40	10/05/2014	0.40	mg/l
Nitrogen, Organic	1	0.30	10/05/2014	0.30	10/05/2014	0.30	mg/l
Nitrogen, Total Kjeldahl	1	0.70	10/05/2014	0.70	10/05/2014	0.70	mg/l
pH, lab	1	8.60	10/05/2014	8.60	10/05/2014	8.60	units
Phosphate, total	1	0.06	10/05/2014	0.06	10/05/2014	0.06	mg/l
Phosphorus, total	1	0.02	10/05/2014	0.02	10/05/2014	0.02	mg/l
SAR in Water	1	17.00	10/05/2014	17.00	10/05/2014	17.00	none
Sulfate	1	60.00	10/05/2014	60.00	10/05/2014	60.00	mg/l
Sulfide	1	0.03	10/05/2014	0.03	10/05/2014	0.03	mg/l
Total Dissolved Solids	1	746.00	10/05/2014	746.00	10/05/2014	746.00	mg/l
Conductivity, Field	0	N/A	N/A	N/A	N/A	N/A	µmhos
nH Einld	0	N/A					unite
pH, Field			N/A	N/A	N/A	N/A	units
Temperature (°C), Field	0	N/A	N/A	N/A	N/A	N/A	(°C)
Temperature (°C), Field Water Level, Field	0	N/A	N/A	N/A	N/A	N/A	(°C)
Temperature (°C), Field Water Level, Field Parameters	0 0 <b>No. of</b>	N/A	N/A	N/A	N/A	N/A	(°C)
Temperature (°C), Field Water Level, Field Parameters Metals	0 0 No. of Samples	N/A N/A High	N/A N/A Date	N/A N/A	N/A N/A Date	N/A N/A Average	(°C) Ft. Units
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved	0 0 <b>No. of</b> <b>Samples</b> 1	N/A N/A High U	N/A N/A <b>Date</b> 10/05/2014	N/A N/A Low	N/A N/A <b>Date</b> 10/05/2014	N/A N/A Average	(°C) Ft. Units mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	0 0 <b>No. of</b> <b>Samples</b> 1	N/A N/A High U 0.02	N/A N/A <b>Date</b> 10/05/2014 10/05/2014	N/A N/A Low U 0.02	N/A N/A Date 10/05/2014 10/05/2014	N/A N/A Average U 0.02	(°C) Ft. Units mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	0 0 <b>No. of</b> <b>Samples</b> 1 1 1	N/A N/A High U 0.02 0.13	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014	N/A N/A Low U 0.02 U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014	N/A N/A Average U 0.02 0.13	(°C) Ft. Units mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	0 0 <b>No. of</b> <b>Samples</b> 1 1 1 1	N/A N/A High U 0.02 0.13 U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A Low U 0.02 U U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A Average U 0.02 0.13 U	(°C) Ft. Units mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	0 0 <b>No. of</b> <b>Samples</b> 1 1 1 1 1	N/A N/A High U 0.02 0.13 U 0.25	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A Low U 0.02 U U 0.25	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A Average U 0.02 0.13 U 0.25	(°C) Ft. Units mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	0 0 <b>No. of</b> <b>Samples</b> 1 1 1 1 1 1	N/A N/A High U 0.02 0.13 U 0.25 U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A U U 0.02 U U 0.25 U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A Average U 0.02 0.13 U 0.25 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	0 0 <b>No. of</b> <b>Samples</b> 1 1 1 1 1 1 1	N/A N/A High U 0.02 0.13 U 0.25	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A U 0.02 U U 0.25 U U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A Average U 0.02 0.13 U 0.25 U 6.00	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	0 0 <b>No. of</b> <b>Samples</b> 1 1 1 1 1 1 1 1 1	N/A N/A High U 0.02 0.13 U 0.25 U 0.25 U 6.00 U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A U U 0.02 U U 0.25 U U U U U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A Average U 0.02 0.13 U 0.25 U 6.00 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	0 0 <b>No. of</b> <b>Samples</b> 1 1 1 1 1 1 1 1 1 1 1	N/A N/A High U 0.02 0.13 U 0.25 U 0.25 U 6.00 U U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A U U 0.02 U U 0.25 U U U U U U U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A Average U 0.02 0.13 U 0.25 U 6.00 U U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	0 0 <b>Samples</b> 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N/A N/A High U 0.02 0.13 U 0.25 U 0.25 U 6.00 U U U U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A U U 0.02 U U 0.25 U U U U U U U U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A Average U 0.02 0.13 U 0.25 U 6.00 U U U U U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Chromium, dissolved Lead, dissolved	0 0 <b>Samples</b> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N/A N/A High U 0.02 0.13 U 0.25 U 0.25 U 6.00 U U U U U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A U U 0.02 U U U U U U U U U U U U U U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A Average U 0.02 0.13 U 0.25 U 6.00 U U U U U U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	0 0 <b>Samples</b> 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N/A N/A High U 0.02 0.13 U 0.25 U 0.25 U 6.00 U U U U U U U U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A U U 0.02 U U 0.25 U U U U U U U U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A Average U 0.02 0.13 U 0.25 U 6.00 U U U U U U U 0.12	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	0 0 <b>Samples</b> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N/A N/A High U 0.02 0.13 U 0.25 U 0.25 U 6.00 U U U U U U U U 0.12 7.40	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A U U U U U U U U U U U U U U U U U U U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A Average U 0.02 0.13 U 0.25 U 6.00 U U U U U U U U 0.12 7.40	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	0 0 <b>Samples</b> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N/A N/A High U 0.02 0.13 U 0.25 U 0.25 U 6.00 U U U U U U U U 0.12 7.40 0.01	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A U U U U U U U U U U U U U U U U U U U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A Average U 0.02 0.13 U 0.25 U 6.00 U U U U U U U 0.12	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved	0 0 <b>Samples</b> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N/A N/A High U 0.02 0.13 U 0.25 U 0.25 U 6.00 U U U U U U U U 0.12 7.40	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A U U U U U U U U U U U U U U U U U U U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A Average U 0.02 0.13 U 0.25 U 6.00 U U U U U U U U U 0.12 7.40 0.01	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved	0 0 <b>No. of</b> <b>Samples</b> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N/A N/A High U 0.02 0.13 U 0.25 U 0.25 U 6.00 U U U U U U U U U 0.12 7.40 0.01 U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A Low U U U U U U U U U U U U U U U U U U U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A Average U 0.02 0.13 U 0.25 U 6.00 U U U U U U U U U U U U U U U U U U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved	0 0 <b>No. of</b> <b>Samples</b> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N/A N/A High U 0.02 0.13 U 0.25 U 0.25 U 6.00 U U U U U U U U 0.12 7.40 0.01 U U U U U U U U U U U U U U U U U U U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A U 0.02 U U U U U U U U U U U U U U U U U U U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A N/A Average U 0.02 0.13 U 0.25 U 6.00 U U U U U U U U U U 0.12 7.40 0.01 U U U U U U U U U U U U U U U U U U U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved	0 0 <b>No. of</b> <b>Samples</b> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N/A N/A High U 0.02 0.13 U 0.25 U 0.25 U 6.00 U U U U U U U U 0.12 7.40 0.01 U U U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A U U U U U U U U U U U U U U U U U U U	N/A N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A N/A N/A Average U 0.02 0.13 U 0.25 U 6.00 U U U U U U 0.12 7.40 0.01 U U U U U U U 1.30	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	0 0 <b>No. of</b> <b>Samples</b> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N/A N/A U 0.02 0.13 U 0.25 U 0.25 U 6.00 U U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.01 U 0.12 7.40 0.01 U 0.01 U 0.12 7.40 0.01 U 0.12 7.40 0.01 U 0.12 7.40 0.01 U 0.12 0.13 U 0.13 U 0.13 U 0.13 U 0.13 U 0.13 U 0.13 U 0.13 U 0.25 U 0.13 U 0.12 U 0.12 U 0.12 U 0.12 U 0.12 U 0.12 U 0.12 U 0.12 U 0.12 U 0.12 U 0.12 U 0.12 U 0.12 U 0.01 U U 0.01 U 0 U 0.01 U 0 U 0 U 0 U 0 U 0 U 0 U 0 U 0 U 0 U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A U 0.02 U U 0.25 U U U U U U U U U U U U U U U U U U U	N/A N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A N/A N/A Average U 0.02 0.13 U 0.25 U 6.00 U U U U U U U 0.12 7.40 0.01 U U U U U U U U 1.30 U	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	0 0 <b>No. of</b> <b>Samples</b> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N/A N/A High U 0.02 0.13 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.12 7.40 0.01 U U U U U U 1.30 U U 11.80	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A U 0.02 U U 0.25 U U U U U U U U U U U U U U U U U U U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A Average U 0.02 0.13 U 0.25 U 6.00 U U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.12 7.40 0.01 U 0.12 7.40 0.01 U 0.12 7.40 0.01 U 0.12 7.40 0.01 0.12 7.40 0.01 0.12 7.40 0.01 0.12 7.40 0.01 0.12 0.12 0.12 0.12 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.13	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Selenium, dissolved Selenium, dissolved Silica, dissolved	0 0 <b>No. of</b> <b>Samples</b> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N/A N/A High U 0.02 0.13 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.12 7.40 0.01 U 0.12 7.40 0.01 U 0.12 7.40 0.01 U 0.12 7.40 0.01 0.13 U 0.13 U 0.13 U 0.25 U 0.13 U 0.25 U 0.13 U 0.25 U 0.13 U 0.25 U 0.13 U 0.25 U 0.13 U 0.25 U 0.13 U 0.25 U 0.13 U 0.25 U 0.13 U 0.25 U 0.13 U 0.13 U 0.25 U 0.13 U 0.25 U 0.13 U 0.25 U 0.13 U 0.13 U 0.25 U 0.13 U 0.13 U 0.13 U 0.13 U 0.13 U 0.13 U 0.13 U 0.13 U 0.13 U 0.13 U 0.13 U 0.13 U 0.13 U 0.13 U 0.13 U 0.13 U 0.13 U 0.10 U 0.12 0.13 U 0.12 0.13 U 0.12 0.13 U 0.12 0.13 U 0.12 0.13 U 0.12 0.12 0.13 U 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A U 0.02 U U 0.25 U U U U U U U U U U U U U U U U U U U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A N/A N/A N/A N/A N/A N/A N/A N/A	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Temperature (°C), Field Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	0 0 <b>No. of</b> <b>Samples</b> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N/A N/A High U 0.02 0.13 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.12 7.40 0.01 U U U U U U 1.30 U U 11.80	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A U 0.02 U U 0.25 U U U U U U U U U U U U U U U U U U U	N/A N/A Date 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014 10/05/2014	N/A N/A Average U 0.02 0.13 U 0.25 U 6.00 U U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.25 U 0.12 7.40 0.01 U 0.12 7.40 0.01 U 0.12 7.40 0.01 U 0.12 7.40 0.01 0.12 7.40 0.01 0.12 7.40 0.01 0.12 7.40 0.01 0.12 0.12 0.12 0.12 0.13 0.13 0.13 0.13 0.13 0.13 0.13 0.13	(°C) Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Table 20: O-GMW-A Annual A-Groove Aquifer

DAUB & ASSOCIATES, INC. 20, W Store Contraction



								_		
	Parameters	No.		High	Date			D	Α	U
	Wet Chemistry	Samp		-	00					n
	Bicarbonate as CaCO3		8	4,070			4 4		1 1	m
	Carbonate as CaCO3		8 8	<u>636.</u> 4,410				0	1	m m
	Total Alkalinity as CaCO3 Bromide		5	0.4					0	m
	Cation-Anion Balance	5		38.7		0		0	-	<u>%</u>
	Sum of Anions		8	137.		1	-		- 5	m
	Sum of Cations		8	126.		1	•	0	5 5	m
	Chemical Oxygen Demand		1	91.0				0	2	m
	Chloride		8	1,910				0	2 6	m
	Conductivity, Lab		9	11,6			1		4	μ
	Fluoride		8	28.1		1		0	2	m
	Hardness as CaCO3		8	72.0		0	1		3	m
	Nitrate as N, dissolved		5	0.1					0	m
	Nitrate/Nitrite as N,		5	0.1					0	m
	Nitrite as N, dissolved		5	U	•					m
	Nitrogen, Ammonia		5	2.0	8		0	1	1	m
	Nitrogen, Organic		2	0.9				-	0	m
	Nitrogen, Total Kjeldahl		5	2.5				0	1	m
	pH, lab		9	8.9		0	8	0	8	u
	Phosphate, total	1	5	2.8						m
	Phosphorus, total		5	0.9		0	0	0	0	m
	SAR in Water	5	8	190.	00	1	3	0	8	n
	Sulfate		0	156.	00			0	3	m
	Sulfide	1	5	3.9	0		1	0	2	m
	Total Dissolved Solids	5	8	7,280	.00	1	7		3	m
	Conductivity, Field	13	34	11,7	40	1		0	4	μ
	pH, Field		06	9.1		-			8	u
	-	Temper	ature (°C),	106	25.00			0	2	(
						Ν	Ν			
Water Level, Field	N/A	N/A	N/	A	N/A	/	/		Ft.	
						А	А			
			r				1			
Parameters	No. of	High	Da	te	Low	D	Α	U	nit	s
Metals	Samples	-				а	v			
Aluminum, dissolved	15	0.05	03/23/		0.03		0		ng/	
Arsenic, dissolved	15	0.00	03/23/		0.00		0		ng/	
Barium, dissolved	15	1.53	04/03/		0.03		0		ng/	
Beryllium, dissolved	15	0.0004	01/20/		0.0002		0		ng/	
Boron, dissolved	58	3.00	11/29/		0.36		1		<u>ng/</u>	
Cadmium, dissolved	15	U	05/09/		<u>U</u>		U		ng/	
Calcium, dissolved	58	14.10	01/24/		1.70		3		ng/	
Chromium, dissolved	15	0.02	04/06/		0.02		0		ng/	
Copper, dissolved	15	U	05/09/		<u>U</u>		U		<u>ng/</u>	
Iron, dissolved	15	1.34	05/09/		0.05		0		ng/	
Lead, dissolved	15	U	05/09/		U		U		ng/	
Lithium, dissolved	15	0.27	05/09/		0.06		0		ng/	
Magnesium, dissolved	58	13.00	04/10/		2.00		6		ng/	
Manganese, dissolved	15	0.05	04/03/		0.01		0		ng/	
Mercury, dissolved	15	UU	05/09/		U		U U		ng/	
Molybdenum, dissolved	<u>15</u> 15		05/09/		U		0		ng/	
Nickel, dissolved		0.02	07/11/		0.01				ng/	
Potassium, dissolved	58	7.00	02/11/		0.40	1 0	1 0		ng/	
Selenium, dissolved	15	0.00	05/09/			0	0 1		ng/	
Silica, dissolved	58	12.80	11/05/		9.00				ng/	
Sodium, dissolved	<u>58</u> 58	2,850.00	11/29/		279.00	0 0	1 1		ng/	
Strontium, dissolved	58 15	2.67 U	01/24/		0.44 U		1 U		ng/	
Vanadium, dissolved	10	U	03/09/	2022	U		U		ng/	I I

#### Table 21: WSW-2 Quarterly A-Groove Aquifer

DAUB & ASSOCIATES, INC. 20. Har Con Contraction State

Natural Soda LLC		2022 Project Status Report & Annual Plan of Development
Zinc, dissolved	15	0.07 04/03/2019 0.01 1 0 mg/l



· · · · · · · · · · · · · · · · · ·					1	ſ	-	1
Parameters	No. of	F	ligh	Date	Low	Date	Averag	Units
Wet	Samples		-	00/00/004	450.0	07/47/004	<b>e</b>	
Bicarbonate as	37		29.00	08/22/201	459.0	07/17/201	487.16	mg/l
Carbonate as	37		6.10	04/03/201	26.70	04/06/201	54.97	mg/l
Total Alkalinity	37		78.00	11/05/201	518.0	03/03/202	542.16	mg/l
Bromide	9		.54	03/23/201	0.10	08/22/201	0.94	mg/l
Cation-Anion	37		3.30	01/24/201	-7.70	07/08/202	-1.24	%
Sum of Anions	37		4.00	04/03/201	12.00	10/18/201	13.08	meq/l
Sum of	37		7.00	01/24/201	12.00	08/22/201	12.78	meq/l
Chemical	9		96.00	04/06/201	11.00	05/09/202	76.33	mg/l
Chloride	37		3.00	11/29/202	11.60	08/27/201	16.20	mg/l
Conductivity,	37		,320	11/29/202	1,100	08/16/201	1,190	µmho
Fluoride	37		9.80	08/22/201	15.70	08/10/202	18.06	mg/l
Hardness as	37		38.00	01/24/201	12.00	06/27/201	19.47	mg/l
Nitrate as N,	9		0.09	08/22/201	0.09	08/22/201	0.09	mg/l
Nitrate/Nitrite	9		).25	08/22/201	0.25	08/22/201	0.25	mg/l
Nitrite as N,	9		).16	08/22/201	0.16	08/22/201	0.16	mg/l
Nitrogen,	9		0.60	05/09/202	0.43	04/06/201	0.48	mg/l
Nitrogen,	9		0.40	08/22/201	0.30	04/03/201	0.37	mg/l
Nitrogen, Total	9		).80	08/22/201	0.30	01/24/201	0.58	mg/l
pH, lab	37		9.30	10/10/201	8.40	11/29/202	8.72	units
Phosphate,	9		).12	08/22/201	0.05	05/09/202	0.08	mg/l
Phosphorus,	9	(	0.04	08/22/201	0.02	05/09/202	0.03	mg/l
SAR in Water	37	3	7.00	09/10/201	7.60	01/24/201	33.02	none
Sulfate	37	5	7.90	04/06/201	11.60	01/27/201	37.44	mg/l
Sulfide	9	6	6.93	05/09/202	0.16	08/22/201	2.61	mg/l
Total	37	77	74.00	01/24/201	661.0	08/27/201	701.46	mg/l
Conductivity,	88		,498	10/10/201	632	02/21/201	1,196	µmho
pH, Field	88		3.90	03/16/201	7.60	04/06/201	8.41	units
	Temperatur	88	23.40	07/17/201	14.85	02/11/202	21.35	(°C)
Water Level,	N/A	N/A	N/A	N/A		N/A	N/A	Ft.
Parameters	No. of	High	Date	Lov	M	Date	Averag	Units
Metals	Samples	•		201	Y		е	Units
Aluminum,	9	0.04	01/24/201	0.0	0	08/22/201	0.02	mg/l
Arsenic,	9	0.05	08/22/201	0.0		03/23/201	0.01	mg/l
Barium,	9	0.27	05/09/202	0.0	3	01/24/201	0.19	mg/l
Beryllium,	9	U	08/22/201	U		08/22/201	U	mg/l
Boron,	37	0.27	08/22/201	0.2	1	04/06/201	0.24	mg/l
Cadmium,	9	U	08/22/201	U		08/22/201	U	mg/l
Calcium,	37	81.30	01/24/201	2.2	0	03/23/201	4.60	mg/l
Chromium,	9	U	08/22/201	U		08/22/201	U	mg/l
Copper,	9	U	08/22/201	U		08/22/201	U	mg/l
Iron, dissolved	9	0.13	11/05/201	0.0	5	03/23/201	0.07	mg/l
Lead,	9	U	08/22/201	U		08/22/201	U	mg/l
Lithium,	9	0.13	04/06/201	0.0	6	08/22/201	0.07	mg/l
Magnesium,	37	8.50	01/24/201	1.4		09/10/201	1.90	mg/l
Manganese,	9	0.03	08/22/201	0.0		04/06/201	0.02	mg/l
Mercury,	9	U	08/22/201	U		08/22/201	U	mg/l
Molybdenum,	9	0.16	01/24/201	0.0	7	08/22/201	0.12	mg/l
Nickel,	9	0.014	04/06/201	U		08/22/201	0.01	mg/l
Potassium,	37	29.20	04/06/201	0.2	0	10/18/201	1.39	mg/l
Selenium,	9	0.003	04/07/202	0.00		01/24/201	0.0017	mg/l
Silica,	37	13.50	07/08/202	11.3		04/06/201	12.54	mg/l
Sodium,	37	303.0	11/29/202	258.		05/14/201	277.05	mg/l
Strontium,	37	0.63	11/29/202	0.4		01/24/201	0.54	mg/l
	01	0.00	11,20,202	0.4	-			
	Q	[]	08/22/201	11		08/22/201	[]	ma/l
Vanadium, Zinc, dissolved	9 9	U 0.36	08/22/201 01/24/201	U 0.0	2	08/22/201 08/22/201	U 0.19	mg/l mg/l

#### Table 22: WSW-3 Quarterly A-Groove Aquifer

DAUB & ASSOCIATES, INC. DI WAT ON TO THE MAN



Wet Chemistry         Samples         High         Date         Low         Date           Bicarbonate as         38         524.00         04/07/202         439.0         08/27/201         47           Carbonate as         39         537.00         09/25/201         46.10         01/13/202         7           Total Alkalinity as         39         925.00         09/25/201         511.0         06/09/201         55           Bromide         10         1.91         05/09/202         0.09         08/25/201         0           Cation-Anion         38         3.70         01/24/201         -7.70         07/08/202         -7           Sum of Anions         39         22.00         09/25/201         13.00         06/09/201         1           Sum of Cations         39         19.00         09/25/201         12.00         08/27/201         1           Chemical Oxygen         10         53.00         08/25/201         13.00         04/06/201         3           Chloride         39         2,810         09/25/201         1,130         04/06/201         1           Conductivity,         39         2,810         09/25/201         1,100         03/05/201         1	verag e 79.92 74.66 52.26 0.75 2.19 3.59 3.00 31.25 7.90 ,256 6.61 3.96	Units mg/l mg/l mg/l % meq/l meq/l mg/l µmho
Bicarbonate as         38         524.00         04/07/202         439.0         08/27/201         47           Carbonate as         39         537.00         09/25/201         46.10         01/13/202         7           Total Alkalinity as         39         925.00         09/25/201         511.0         06/09/201         55           Bromide         10         1.91         05/09/202         0.09         08/25/201         0           Cation-Anion         38         3.70         01/24/201         -7.70         07/08/202         -7           Sum of Anions         39         22.00         09/25/201         13.00         06/09/201         1           Sum of Cations         39         19.00         09/25/201         12.00         08/27/201         1           Chemical Oxygen         10         53.00         08/25/201         13.00         04/06/201         3           Chloride         39         50.60         11/14/201         7.87         10/05/202         1           Conductivity,         39         2,810         09/25/201         1,130         04/06/201         1           Hardness as         39         67.00         01/24/201         11.00         03/05/201 <th>79.92 74.66 52.26 0.75 2.19 3.59 3.00 31.25 7.90 ,256 6.61 3.96</th> <th>mg/l mg/l % meq/l meq/l mg/l</th>	79.92 74.66 52.26 0.75 2.19 3.59 3.00 31.25 7.90 ,256 6.61 3.96	mg/l mg/l % meq/l meq/l mg/l
Carbonate as         39         537.00         09/25/201         46.10         01/13/202         7           Total Alkalinity as         39         925.00         09/25/201         511.0         06/09/201         55           Bromide         10         1.91         05/09/202         0.09         08/25/201         0           Cation-Anion         38         3.70         01/24/201         -7.70         07/08/202         -7           Sum of Anions         39         22.00         09/25/201         13.00         06/09/201         1           Sum of Cations         39         19.00         09/25/201         12.00         08/27/201         1           Chemical Oxygen         10         53.00         08/25/201         13.00         04/06/201         3           Chloride         39         50.60         11/14/201         7.87         10/05/202         1           Conductivity,         39         2,810         09/25/201         1,130         04/06/201         1           Hardness as         39         67.00         01/24/201         11.00         03/05/201         1           Nitrate as N,         10         0.03         08/25/201         U         09/25/201	74.66 52.26 0.75 2.19 3.59 3.00 31.25 7.90 ,256 6.61 3.96	mg/l mg/l % meg/l meg/l mg/l
Total Alkalinity as39925.0009/25/201511.006/09/20155Bromide101.9105/09/2020.0908/25/2010Cation-Anion383.7001/24/201-7.7007/08/202Sum of Anions3922.0009/25/20113.0006/09/2011Sum of Cations3919.0009/25/20112.0008/27/2011Chemical Oxygen1053.0008/25/20113.0004/06/2013Chloride3950.6011/14/2017.8710/05/2021Conductivity,392,81009/25/2011,13004/06/2011Fluoride3919.7011/14/2015.1109/25/2011Hardness as3967.0001/24/20111.0003/05/2011Nitrate as N,100.0308/25/201U09/25/2010Nitrate as N,100.0508/25/201U09/25/2010Nitrogen,102.2809/25/2010.4304/13/2020Nitrogen,100.4004/03/201U09/25/2010Nitrogen,100.4004/03/201U09/25/2010	0.75 2.19 3.59 3.00 31.25 7.90 ,256 6.61 3.96	mg/l % meq/l meq/l mg/l
Bromide         10         1.91         05/09/202         0.09         08/25/201         0           Cation-Anion         38         3.70         01/24/201         -7.70         07/08/202            Sum of Anions         39         22.00         09/25/201         13.00         06/09/201         1           Sum of Cations         39         19.00         09/25/201         12.00         08/27/201         1           Chemical Oxygen         10         53.00         08/25/201         13.00         04/06/201         3           Chloride         39         50.60         11/14/201         7.87         10/05/202         1           Conductivity,         39         2,810         09/25/201         1,130         04/06/201         1           Hardness as         39         19.70         11/14/201         5.11         09/25/201         1           Hardness as         39         67.00         01/24/201         11.00         03/05/201         1           Nitrate as N,         10         0.03         08/25/201         U         09/25/201         0           Nitrate as N,         10         0.05         08/25/201         U         09/25/201         0	2.19 3.59 3.00 31.25 7.90 ,256 6.61 3.96	% meq/l meq/l mg/l
Sum of Anions         39         22.00         09/25/201         13.00         06/09/201         1           Sum of Cations         39         19.00         09/25/201         12.00         08/27/201         1           Chemical Oxygen         10         53.00         08/25/201         13.00         04/06/201         3           Chloride         39         50.60         11/14/201         7.87         10/05/202         1           Conductivity,         39         2,810         09/25/201         1,130         04/06/201         1           Fluoride         39         19.70         11/14/201         5.11         09/25/201         1           Hardness as         39         67.00         01/24/201         11.00         03/05/201         1           Nitrate as N,         10         0.03         08/25/201         U         09/25/201         0           Nitrate/Nitrite as         10         0.05         08/25/201         U         09/25/201         0           Nitrogen,         10         2.28         09/25/201         0.41         0.4/13/202         0           Nitrogen,         10         0.40         04/03/201         U         09/25/201         0     <	3.59 3.00 31.25 7.90 ,256 6.61 3.96	meq/l meq/l mg/l mg/l
Sum of Cations         39         19.00         09/25/201         12.00         08/27/201         1           Chemical Oxygen         10         53.00         08/25/201         13.00         04/06/201         3           Chloride         39         50.60         11/14/201         7.87         10/05/202         1           Conductivity,         39         2,810         09/25/201         1,130         04/06/201         1           Fluoride         39         19.70         11/14/201         5.11         09/25/201         1           Hardness as         39         67.00         01/24/201         11.00         03/05/201         1           Nitrate as N,         10         0.03         08/25/201         U         09/25/201         0           Nitrate/Nitrite as         10         0.05         08/25/201         U         09/25/201         0           Nitrite as N,         10         2.28         09/25/201         0.01         09/25/201         0           Nitrogen,         10         0.40         04/03/201         U         09/25/201         0           Nitrogen,         10         0.40         04/03/201         U         09/25/201         0  <	3.00 31.25 7.90 ,256 6.61 3.96	meq/l mg/l mg/l
Chemical Oxygen         10         53.00         08/25/201         13.00         04/06/201         3           Chloride         39         50.60         11/14/201         7.87         10/05/202         1           Conductivity,         39         2,810         09/25/201         1,130         04/06/201         1           Fluoride         39         19.70         11/14/201         5.11         09/25/201         1           Hardness as         39         67.00         01/24/201         11.00         03/05/201         1           Nitrate as N,         10         0.03         08/25/201         U         09/25/201         0           Nitrate As N,         10         0.05         08/25/201         U         09/25/201         0           Nitrite as N,         10         0.05         08/25/201         0.01         09/25/201         0           Nitrogen,         10         2.28         09/25/201         0.43         04/13/202         0           Nitrogen,         10         0.40         04/03/201         U         09/25/201         0           Nitrogen,         10         0.40         04/03/201         U         09/25/201         0	31.25 7.90 ,256 6.61 3.96	mg/l mg/l
Chloride         39         50.60         11/14/201         7.87         10/05/202         1           Conductivity,         39         2,810         09/25/201         1,130         04/06/201         1           Fluoride         39         19.70         11/14/201         5.11         09/25/201         1           Hardness as         39         67.00         01/24/201         11.00         03/05/201         1           Nitrate as N,         10         0.03         08/25/201         U         09/25/201         0           Nitrate/Nitrite as         10         0.08         08/25/201         U         09/25/201         0           Nitrite as N,         10         0.05         08/25/201         U         09/25/201         0           Nitrite as N,         10         0.05         08/25/201         0.01         09/25/201         0           Nitrogen,         10         2.28         09/25/201         0.43         04/13/202         0           Nitrogen,         10         0.40         04/03/201         U         09/25/201         0           Nitrogen,         10         1.00         09/25/201         0.30         03/23/201         0 <td>7.90 ,256 6.61 3.96</td> <td>mg/l</td>	7.90 ,256 6.61 3.96	mg/l
Conductivity,         39         2,810         09/25/201         1,130         04/06/201         1           Fluoride         39         19.70         11/14/201         5.11         09/25/201         1           Hardness as         39         67.00         01/24/201         11.00         03/05/201         1           Nitrate as N,         10         0.03         08/25/201         U         09/25/201         0           Nitrate/Nitrite as         10         0.08         08/25/201         U         09/25/201         0           Nitrite as N,         10         0.05         08/25/201         U         09/25/201         0           Nitrite as N,         10         0.05         08/25/201         0.01         09/25/201         0           Nitrogen,         10         2.28         09/25/201         0.43         04/13/202         0           Nitrogen,         10         0.40         04/03/201         U         09/25/201         0           Nitrogen,         10         1.00         09/25/201         0.30         03/23/201         0	,256 6.61 3.96	
Fluoride         39         19.70         11/14/201         5.11         09/25/201         1           Hardness as         39         67.00         01/24/201         11.00         03/05/201         1           Nitrate as N,         10         0.03         08/25/201         U         09/25/201         0           Nitrate/Nitrite as         10         0.08         08/25/201         U         09/25/201         0           Nitrite as N,         10         0.05         08/25/201         0.01         09/25/201         0           Nitrite as N,         10         0.05         08/25/201         0.01         09/25/201         0           Nitrogen,         10         2.28         09/25/201         0.43         04/13/202         0           Nitrogen,         10         0.40         04/03/201         U         09/25/201         0           Nitrogen,         10         1.00         09/25/201         0.30         03/23/201         0	6.61 3.96	umho
Hardness as         39         67.00         01/24/201         11.00         03/05/201         1           Nitrate as N,         10         0.03         08/25/201         U         09/25/201         0           Nitrate/Nitrite as         10         0.08         08/25/201         U         09/25/201         0           Nitrite as N,         10         0.05         08/25/201         0.01         09/25/201         0           Nitrogen,         10         2.28         09/25/201         0.43         04/13/202         0           Nitrogen,         10         0.40         04/03/201         U         09/25/201         0           Nitrogen,         10         1.00         09/25/201         0.30         03/23/201         0	3.96	
Nitrate as N,         10         0.03         08/25/201         U         09/25/201         0           Nitrate/Nitrite as         10         0.08         08/25/201         U         09/25/201         0           Nitrate/Nitrite as N,         10         0.05         08/25/201         0.01         09/25/201         0           Nitrite as N,         10         0.05         08/25/201         0.01         09/25/201         0           Nitrogen,         10         2.28         09/25/201         0.43         04/13/202         0           Nitrogen,         10         0.40         04/03/201         U         09/25/201         0           Nitrogen, Total         10         1.00         09/25/201         0.30         03/23/201         0		mg/l
Nitrate/Nitrite as         10         0.08         08/25/201         U         09/25/201         0           Nitrite as N,         10         0.05         08/25/201         0.01         09/25/201         0           Nitrogen,         10         2.28         09/25/201         0.43         04/13/202         0           Nitrogen,         10         0.40         04/03/201         U         09/25/201         0           Nitrogen, Total         10         1.00         09/25/201         0.30         03/23/201         0		mg/l
Nitrite as N,         10         0.05         08/25/201         0.01         09/25/201         0           Nitrogen,         10         2.28         09/25/201         0.43         04/13/202         0           Nitrogen,         10         0.40         04/03/201         U         09/25/201         0           Nitrogen,         10         1.00         09/25/201         0.30         03/23/201         0	0.02	mg/l
Nitrogen,         10         2.28         09/25/201         0.43         04/13/202         0           Nitrogen,         10         0.40         04/03/201         U         09/25/201         0           Nitrogen, Total         10         1.00         09/25/201         0.30         03/23/201         0	0.04	mg/l
Nitrogen,         10         0.40         04/03/201         U         09/25/201         0           Nitrogen, Total         10         1.00         09/25/201         0.30         03/23/201         0	0.03	mg/l
Nitrogen, Total 10 1.00 09/25/201 0.30 03/23/201 0	0.66	mg/l
	0.25	mg/l
	0.62	mg/l
	8.84	units
	0.10	mg/l
	0.03	mg/l
	35.10	none
	<u>3.36</u>	mg/l
	2.62	mg/l
	32.08 ,228	mg/l
	, <u>220</u> 8.51	µmho units
	21.35	(°C)
	N/A	Ft.
		11.
Parameters No. of High Date Low Date Av	verag	Units
Metals Samples -	е	Onits
	0.42	mg/l
	0.00	mg/l
	0.09	mg/l
Beryllium, 10 U 04/06/201 U 09/25/2014	U	mg/l
	0.21	mg/l
Cadmium, 10 U 09/25/201 U 09/25/2014	U	mg/l
	2.81	mg/l
Chromium, 10 U 09/25/201 U 09/25/2014	U	mg/l
Copper, 10 U 09/25/201 U 09/25/2014	U	mg/l
	0.33	mg/l
Lead, 10 U 09/25/201 U 09/25/2014	U 0.11	mg/l
	0.11	mg/l
	1.68	mg/l
Manganese,         10         0.01         01/24/201         0.01         01/24/2018         0           Mercury,         10         U         09/25/201         U         09/25/2014         0	0.01 U	mg/l
	0.03	mg/l mg/l
	U.U.S U	mg/l
	0.99	mg/l
	.0013	mg/l
Potassium, 39 18.30 09/25/201 0.20 05/14/2018 (	5.93	mg/l
Potassium,         39         18.30         09/25/201         0.20         05/14/2018         0           Selenium,         10         0.0042         04/07/202         0.0003         04/03/2019         0.	85.90	mg/l
Potassium,         39         18.30         09/25/201         0.20         05/14/2018         0           Selenium,         10         0.0042         04/07/202         0.0003         04/03/2019         0.           Silica,         39         172.00         09/25/201         8.90         01/24/2018         1	00.00	mg/l
Potassium,         39         18.30         09/25/201         0.20         05/14/2018         0           Selenium,         10         0.0042         04/07/202         0.0003         04/03/2019         0.           Silica,         39         172.00         09/25/201         8.90         01/24/2018         1           Sodium,         39         416.00         09/25/201         262.00         07/08/2020         28		
Potassium,         39         18.30         09/25/201         0.20         05/14/2018         0           Selenium,         10         0.0042         04/07/202         0.0003         04/03/2019         0.           Silica,         39         172.00         09/25/201         8.90         01/24/2018         1           Sodium,         39         416.00         09/25/201         262.00         07/08/2020         28	0.61 U	mg/l

#### Table 23: WSW-4 Quarterly A-Groove Aquifer

DAUB & ASSOCIATES, INC. 20. 3 AN AND STRANK



Parameters	No. of		Laula				A	11 14
Wet Chemistry	Samples	I	High	Date	Low	Date	Average	Units
Bicarbonate as	191	76	62.00	03/25/1994	144.00	07/30/1990	610.71	mg/l
Carbonate as	191		06.00	05/21/1997	25.00	07/01/1997	100.05	mg/l
Total Alkalinity as	191		80.00	07/31/1991	200.00	07/30/1990	710.91	mg/l
Bromide	44		0.00	06/26/1991	0.06	07/01/1997	1.15	mg/l
Cation-Anion	186		4.10	04/16/2002	-10.30	01/13/2021	-0.21	%
Sum of Anions	185		8.00	06/14/2017	4.29	07/30/1990	15.71	meq/l
Sum of Cations	185		8.20	04/11/2006	4.38	07/30/1990	15.46	meq/l
Chemical	31		20.00	06/25/2007	30.00	03/30/1990	81.41	mg/l
Chloride	190		0.50	06/14/2017	6.00	09/27/1990	15.28	mg/l
Conductivity,	183		50.00	04/24/1991	1,000.00	05/20/1993	1,392.07	µmhos
Fluoride	185		8.20	02/24/1992	0.20	09/29/1994	23.81	mg/l
Hardness as	189		5.00	09/27/1990	0.00	07/30/1990	11.16	mg/l
Nitrate as N,	30		6.50	06/25/2007	0.00	06/26/1991	1.01	mg/l
Nitrate/Nitrite	30		7.00	06/25/2007	0.02	06/26/1991	1.07	mg/l
Nitrite as N,	31		).55	06/25/2007	0.02	03/30/1990	0.13	mg/l
Nitrogen,	30		).23	12/26/2018	0.06	07/30/1990	1.85	mg/l
Nitrogen,	29		9.10	06/26/1991	0.00	06/15/1992	5.08	
								mg/l
Nitrogen, Total	30		0.10	06/26/1991	0.80	06/15/1992	6.81	mg/l
pH, lab	186		0.80	12/20/1994	8.10	10/28/2002	8.89	units
Phosphate,	26		5.00	06/25/2007	0.06	07/18/1995	13.46	mg/l
Phosphorus,	31		2.90	09/27/1990	0.02	07/02/1998	0.17	mg/l
SAR in Water	161		<u>8.62</u>	06/26/1990	16.50	09/27/1990	48.40	none
Sulfate	189		0.00	10/25/1990	0.00	08/16/2017	20.10	mg/l
Sulfide	26		2.10	07/30/1990	0.02	07/27/2001	0.45	mg/l
Total Dissolved	191		00.00	10/21/1989	446.00	07/30/1990	862.76	mg/l
Conductivity,	208		83.00	06/05/2012	925.00	08/02/2006	1,343.22	µmhos
pH, Field	208	1 1	0.12	07/29/2009	7.10	06/10/2020	9.01	units
	Temperature	114	19.00	07/31/1991	7.60	04/01/2006	12.53	(°C)
					1100	0 0 = 0 0 0	12.00	
Water Level,	98	500 70	06/25/2014					
Water Level, Field	98	500.70	06/25/2014			25/2014	473.31	Ft.
Field		500.70	06/25/2014					
Field Parameters	No. of			4 432.37	06/2	25/2014	473.31	Ft.
Field Parameters Metals	No. of Samples	High	Date	432.37	06/2	25/2014 Date	473.31 Average	Ft. Units
Field Parameters Metals Aluminum,	No. of Samples 30	<b>High</b> 1.54	<b>Date</b> 03/30/1990	4 432.37 Low 0 0.04	06/2	25/2014 Date 01/1997	473.31 Average 0.24	Ft. Units mg/l
Field Parameters Metals Aluminum, Arsenic,	No. of Samples 30 30	High 1.54 0.30	Date 03/30/1990 10/21/1989	4 432.37 Low 0 0.04 9 0.00	06/2 07/0 12/0	25/2014 Date 01/1997 03/2012	473.31 Average 0.24 0.02	Ft. Units mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium,	No. of Samples 30 30 30	High 1.54 0.30 0.43	Date 03/30/1990 10/21/1989 08/02/2006	4 432.37 Low 0 0.04 9 0.00 5 0.02	06/2 07/( 12/( 12/2	25/2014 Date 01/1997 03/2012 26/2018	473.31 Average 0.24 0.02 0.18	Ft. Units mg/l
Field Parameters Metals Aluminum, Arsenic,	No. of Samples 30 30 30 29	High 1.54 0.30 0.43 0.01	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991	4 432.37 Low 0 0.04 0 0.00 5 0.02 1 0.01	06/2 07/( 12/( 12/2 06/2	25/2014 Date 01/1997 03/2012 26/2018 26/1991	473.31 Average 0.24 0.02 0.18 0.01	Ft. Units mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium,	No. of Samples 30 30 30	High 1.54 0.30 0.43	Date 03/30/1990 10/21/1989 08/02/2006	4 432.37 Low 0 0.04 0 0.00 5 0.02 1 0.01	06/2 07/( 12/( 12/2 06/2	25/2014 Date 01/1997 03/2012 26/2018	473.31 Average 0.24 0.02 0.18	Ft. Units mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Barium, Beryllium, Boron, Cadmium,	No. of Samples 30 30 30 29	High 1.54 0.30 0.43 0.01 3.30 0.01	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989	4         432.37           Low         0         0.04         0         1         0         35         0         0         0         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1 <th1< th=""> <th1< th=""> <th1< th=""> <th1<< td=""><td>06/2 07/( 12/( 12/2 06/2 01/2 10/2</td><td>25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989</td><td>473.31 Average 0.24 0.02 0.18 0.01 0.68 0.01</td><td>Ft. Units mg/l mg/l mg/l mg/l mg/l</td></th1<<></th1<></th1<></th1<>	06/2 07/( 12/( 12/2 06/2 01/2 10/2	25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989	473.31 Average 0.24 0.02 0.18 0.01 0.68 0.01	Ft. Units mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron,	No. of Samples 30 30 29 186 29 183	High 1.54 0.30 0.43 0.01 3.30	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991	4         432.37           Low         0         0.04         0         1         0         35         0         0         0         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1         0         1 <th1< th=""> <th1< th=""> <th1< th=""> <th1<< td=""><td>06/2 07/0 12/0 12/2 06/2 01/2 10/2 03/</td><td>25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989 16/2010</td><td>473.31 Average 0.24 0.02 0.18 0.01 0.68</td><td>Ft. Units mg/l mg/l mg/l mg/l</td></th1<<></th1<></th1<></th1<>	06/2 07/0 12/0 12/2 06/2 01/2 10/2 03/	25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989 16/2010	473.31 Average 0.24 0.02 0.18 0.01 0.68	Ft. Units mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Barium, Beryllium, Boron, Cadmium,	No. of Samples 30 30 30 29 186 29	High 1.54 0.30 0.43 0.01 3.30 0.01	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989	4         432.37           Low         0         0.04         0 <th< td=""><td>06/2 07/0 12/0 12/2 06/2 01/2 10/2 03/</td><td>25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989</td><td>473.31 Average 0.24 0.02 0.18 0.01 0.68 0.01</td><td>Ft. Units mg/l mg/l mg/l mg/l mg/l</td></th<>	06/2 07/0 12/0 12/2 06/2 01/2 10/2 03/	25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989	473.31 Average 0.24 0.02 0.18 0.01 0.68 0.01	Ft. Units mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium,	No. of Samples 30 30 29 186 29 183	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990	4         432.37           Low           0         0.04           0         0.00           5         0.02           1         0.35           0         0.01           0         0.50           1         0.50	06/2 07/0 12/0 12/2 06/2 01/2 10/2 03/ 06/2	25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989 16/2010	473.31 Average 0.24 0.02 0.18 0.01 0.68 0.01 2.29	Ft. Units mg/I mg/I mg/I mg/I mg/I mg/I
Field Parameters Metals Aluminum, Arsenic, Barium, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium,	No. of Samples 30 30 29 186 29 183 29	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991	4         432.37           Low           0         0.04           0         0.00           5         0.02           1         0.35           0         0.01           0         0.50           1         0.50           1         0.01	06/2 07/0 12/0 12/2 06/2 01/2 10/2 03/2 06/2 03/3	25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989 16/2010 26/1991	473.31 Average 0.24 0.02 0.18 0.01 0.68 0.01 2.29 0.01	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper,	No. of Samples 30 30 29 186 29 183 29 183 29 30	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 0.02	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991 06/25/2007	4         432.37           Low           0         0.04           0         0.00           5         0.02           1         0.35           0         0.01           1         0.50           1         0.01           0         0.01           0         0.01           0         0.01	06/2 07/0 12/0 12/2 06/2 01/2 10/2 03/2 03/2 03/2 07/0	25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989 16/2010 26/1991 30/1990	473.31 Average 0.24 0.02 0.18 0.01 0.68 0.01 2.29 0.01 0.01	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved	No. of Samples 30 30 29 186 29 183 29 183 29 30 30	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 0.02 0.93	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991 06/25/2007 03/30/1990	4         432.37           Low         0         0.04         0 <th< td=""><td>06/2 07/0 12/0 12/2 06/2 01/2 10/2 03/2 03/2 03/2 07/0 06/2</td><td>25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989 16/2010 26/1991 30/1990 07/1999</td><td>473.31 Average 0.24 0.02 0.18 0.01 0.68 0.01 2.29 0.01 0.01 0.01 0.17</td><td>Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l</td></th<>	06/2 07/0 12/0 12/2 06/2 01/2 10/2 03/2 03/2 03/2 07/0 06/2	25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989 16/2010 26/1991 30/1990 07/1999	473.31 Average 0.24 0.02 0.18 0.01 0.68 0.01 2.29 0.01 0.01 0.01 0.17	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium,	No. of Samples 30 30 29 186 29 183 29 183 29 30 30 30 29	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 0.02 0.93 0.10	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991 06/25/2007 03/30/1990 10/21/1989	4         432.37           Low         0         0.04         0 <th< td=""><td>06/2 07/0 12/0 12/2 06/2 01/2 10/2 03/2 03/2 07/0 06/2 03/2</td><td>25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989 16/2010 26/1991 30/1990 07/1999 26/1991</td><td>473.31 Average 0.24 0.02 0.18 0.01 0.68 0.01 2.29 0.01 0.01 0.01 0.17 0.06</td><td>Ft. Units mg/I mg/I mg/I mg/I mg/I mg/I mg/I mg/I mg/I mg/I mg/I</td></th<>	06/2 07/0 12/0 12/2 06/2 01/2 10/2 03/2 03/2 07/0 06/2 03/2	25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989 16/2010 26/1991 30/1990 07/1999 26/1991	473.31 Average 0.24 0.02 0.18 0.01 0.68 0.01 2.29 0.01 0.01 0.01 0.17 0.06	Ft. Units mg/I mg/I mg/I mg/I mg/I mg/I mg/I mg/I mg/I mg/I mg/I
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved	No. of Samples 30 30 29 186 29 183 29 183 29 30 30 30 29 29 29	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 0.02 0.93 0.10 0.20	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 06/26/1991 06/25/2007 03/30/1990 10/21/1989 12/27/1990	4         432.37           Low         0         0.04         0           0         0.04         0         0         0           0         0.04         0         0         0         0           0         0.01         0	06/2 07/0 12/0 12/2 06/2 01/2 10/2 03/2 03/2 07/0 06/2 03/2 03/2 03/2 03/2	25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989 16/2010 26/1991 30/1990 07/1999 26/1991 30/1990 16/2010	473.31 <b>Average</b> 0.24 0.02 0.18 0.01 0.68 0.01 2.29 0.01 0.01 0.01 0.17 0.06 0.13 1.37	Ft. Units mg/I mg/I mg/I mg/I mg/I mg/I mg/I mg/I mg/I mg/I mg/I mg/I
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium,	No. of Samples 30 30 29 186 29 183 29 30 30 30 29 29 29 29 29	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 0.02 0.93 0.10 0.20 8.00	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991 06/25/2007 03/30/1990 10/21/1989 12/27/1990	4         432.37           Low         0         0.04         0           0         0.04         0         0         0           0         0.04         0         0         0         0           0         0.00         0	06/2 07/0 12/0 12/2 06/2 01/2 10/2 03/2 03/2 03/2 07/0 06/2 03/2 03/2 03/2 03/2 03/2 03/2	25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989 16/2010 26/1991 30/1990 07/1999 26/1991 30/1990	473.31 <b>Average</b> 0.24 0.02 0.18 0.01 0.68 0.01 2.29 0.01 0.01 0.01 0.01 0.17 0.06 0.13	Ft. Units mg/I mg/I mg/I mg/I mg/I mg/I mg/I mg/I mg/I mg/I mg/I
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Calcium, Calcium, Chromium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese,	No. of Samples 30 30 29 186 29 183 29 30 30 30 29 29 29 29 185 29 30	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 0.02 0.93 0.10 0.20 8.00 0.07 0.001	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 06/26/1991 06/25/2007 03/30/1990 10/21/1989 12/27/1990 09/27/1990	4         432.37           Low         0         0.04         0           0         0.04         0         0         0           0         0.04         0         0         0         0           0         0.01         0	06/2 07/0 12/0 12/2 06/2 01/2 10/2 03/2 03/2 03/2 03/2 03/2 03/2 03/2 0	25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989 16/2010 26/1991 30/1990 07/1999 26/1991 30/1990 16/2010 01/1997	473.31 <b>Average</b> 0.24 0.02 0.18 0.01 0.68 0.01 2.29 0.01 0.01 0.01 0.17 0.06 0.13 1.37 0.03	Ft. Units mg/I
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum,	No. of Samples 30 30 29 186 29 183 29 30 30 30 29 29 29 29 185 29 30 30 29 29 30 30 29 29 30 30 29	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 13.00 0.01 0.02 0.93 0.10 0.20 8.00 0.07 0.001 0.60	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 06/26/1991 06/25/2007 03/30/1990 10/21/1989 12/27/1990 06/25/2007 06/25/2007 06/15/1992 10/21/1989	4         432.37           Low           0         0.04           0         0.00           0         0.01           0         0.01           0         0.50           1         0.01           0         0.01           0         0.01           0         0.01           0         0.01           0         0.01           0         0.02           0         0.01           0         0.02           0         0.030           7         0.01           2         0.0001           0         0.01	06/2 07/0 12/0 12/2 06/2 01/2 00/2 03/2 03/2 03/2 03/2 03/2 03/2 03	25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989 16/2010 26/1991 30/1990 07/1999 26/1991 30/1990 16/2010 01/1997 26/1991 26/1991 26/1991 27/2001	473.31 <b>Average</b> 0.24 0.02 0.18 0.01 0.68 0.01 2.29 0.01 0.01 0.17 0.06 0.13 1.37 0.03 0.0005 0.14	Ft. Units mg/I
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Calcium, Calcium, Calcium, Chromium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lead, dissolved Lead, dissolved Magnesium, Magnesium, Manganese, Mercury, Molybdenum, Nickel,	No. of Samples 30 30 29 186 29 183 29 30 30 30 29 29 29 185 29 30 30 29 29 30 30 29 30 30 30 30 30 30 30 30 30 30 30 30 30	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 13.00 0.01 0.02 0.93 0.10 0.20 8.00 0.07 0.001 0.60 0.03	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 06/26/1991 06/25/2007 03/30/1990 10/21/1989 12/27/1990 06/25/2007 06/15/1992 10/21/1989 10/21/1989	4         432.37           Low         0         0.04         0           0         0.04         0         0         0           0         0.04         0         0         0         0           0         0.01         0	06/2 07/0 12/0 12/2 06/2 01/2 00/2 03/2 03/2 03/2 03/2 03/2 03/2 03	25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989 16/2010 26/1991 30/1990 07/1999 26/1991 30/1990 16/2010 01/1997 26/1991 26/1991 27/2001 03/2012	473.31 <b>Average</b> 0.24 0.02 0.18 0.01 0.68 0.01 2.29 0.01 0.01 0.01 0.17 0.06 0.13 1.37 0.03 0.0005 0.14 0.02	Ft. Units mg/I
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium,	No. of Samples 30 30 30 29 186 29 183 29 30 30 29 29 29 185 29 30 30 29 29 30 30 29 30 30 29 30 30 29 30 30 29 30 30 30 30 30 30 30 30 30 30 30 30 30	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 13.00 0.01 0.02 0.93 0.10 0.20 8.00 0.07 0.001 0.60 0.03 13.00	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 06/26/1991 06/25/2007 03/30/1990 10/21/1989 12/27/1990 06/25/2007 06/15/1992 10/21/1989 10/21/1989	4         432.37           Low           0         0.04           0         0.00           0         0.01           0         0.01           0         0.50           1         0.01           0         0.01           0         0.01           0         0.01           0         0.01           0         0.01           0         0.01           0         0.02           0         0.01           0         0.02           0         0.01           0         0.02           0         0.01           0         0.02           0         0.01           0         0.01           0         0.01           0         0.01           0         0.01	06/2 07/( 12/( 12/2 06/2 01/2 06/2 03/3 03/3 03/3 07/( 06/2 03/3 03/3 07/( 06/2 07/2 07/2 06/2 07/2 00/2 07/2 00/2 07/2 00/2 00/2 00	25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989 16/2010 26/1991 30/1990 07/1999 26/1991 30/1990 16/2010 01/1997 26/1991 26/1991 27/2001 03/2012 10/2020	473.31 <b>Average</b> 0.24 0.02 0.18 0.01 0.68 0.01 2.29 0.01 0.01 0.17 0.06 0.13 1.37 0.03 0.0005 0.14 0.02 1.28	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Boron, Cadmium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium,	No. of Samples 30 30 30 29 186 29 183 29 30 30 29 29 29 185 29 30 29 30 29 30 29 30 30 29 30 30 29 30 30 29 30 30 29 30 30 30 30 30 30 30 30 30 30 30 30 30	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 13.00 0.01 0.02 0.93 0.10 0.20 8.00 0.07 0.001 0.60 0.03 13.00 0.001	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 06/26/1991 06/25/2007 06/25/2007 03/30/1990 10/21/1989 10/21/1989 10/21/1989 10/21/1989	4         432.37           Low           0         0.04           0         0.00           5         0.02           1         0.35           0         0.01           1         0.35           0         0.01           1         0.050           1         0.01           0         0.01           0         0.02           0         0.01           0         0.02           0         0.06           0         0.30           7         0.01           0         0.01           0         0.01           0         0.01           0         0.01           0         0.01	06/2 07/( 12/( 12/2 06/2 06/2 03/2 03/2 03/2 07/( 06/2 03/2 07/( 06/2 07/2 07/2 07/2 07/2 06/2 07/2 07/2 07/2 07/2 07/2 07/2 07/2 07	25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989 16/2010 26/1991 30/1990 07/1999 26/1991 30/1990 16/2010 01/1997 26/1991 27/2001 03/2012 10/2020 21/1989	473.31 <b>Average</b> 0.24 0.02 0.18 0.01 0.68 0.01 2.29 0.01 0.01 0.17 0.06 0.13 1.37 0.03 0.0005 0.14 0.02 1.28 0.001	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica,	No. of Samples 30 30 29 186 29 183 29 30 30 29 29 29 185 29 30 29 30 29 30 29 30 29 30 30 29 30 30 29 30 30 29 30 30 29 30 30 29 30 30 29 30 30 30 30 30 30 30 30 30 30 30 30 30	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 13.00 0.01 0.02 0.93 0.10 0.20 8.00 0.07 0.001 0.60 0.03 13.00 0.001 35.90	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 06/26/1991 06/26/1991 06/25/2007 03/30/1990 10/21/1989 10/21/1989 10/21/1989 10/21/1989 10/21/1989	4         432.37           Low           0         0.04           0         0.00           5         0.02           1         0.35           0         0.01           1         0.35           0         0.01           0         0.01           0         0.01           0         0.01           0         0.02           0         0.01           0         0.02           0         0.06           0         0.30           7         0.01           2         0.0001           0         0.01           0         0.01           0         0.01           0         0.01           0         0.01           0         0.01           0         0.01           0         0.001           0         0.001	06/2 07/( 12/( 12/2 06/2 06/2 03/2 03/2 07/( 06/2 03/2 07/( 06/2 07/2 07/2 06/2 07/2 06/2 07/2 06/2 07/2 06/2 07/2 06/2 07/2 07/2 07/2 06/2 07/2 07/2 07/2 06/2 07/2 07/2 07/2 07/2 07/2 07/2 07/2 07	25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989 16/2010 26/1991 30/1990 07/1999 26/1991 30/1990 16/2010 01/1997 26/1991 27/2001 01/1997 26/1991 27/2001 03/2012 10/2020 21/1989 11/2019	473.31 <b>Average</b> 0.24 0.02 0.18 0.01 0.68 0.01 2.29 0.01 0.01 0.01 0.17 0.06 0.13 1.37 0.03 0.0005 0.14 0.02 1.28 0.001 16.89	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Calcium, Chromium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica, Sodium,	No. of Samples 30 30 29 186 29 183 29 30 30 29 29 29 185 29 30 29 30 29 30 29 30 29 30 30 29 30 30 29 30 30 29 30 30 29 30 30 29 30 30 29 30 30 30 30 30 30 30 30 30 30 30 30 30	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 13.00 0.01 0.02 0.93 0.10 0.20 8.00 0.07 0.001 0.60 0.07 0.001 0.60 0.03 13.00 0.001 35.90 408.00	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 09/27/1990 06/26/1991 06/25/2007 03/30/1990 10/21/1989 10/21/1989 10/21/1989 10/21/1989 03/25/1991 10/21/1989 04/11/2006	4         432.37           Low           0         0.04           0         0.00           5         0.02           1         0.35           0         0.01           1         0.35           0         0.01           1         0.35           0         0.01           0         0.01           0         0.01           0         0.01           0         0.02           0         0.02           0         0.01           0         0.02           0         0.01           0         0.01           0         0.01           0         0.01           0         0.01           0         0.01           0         0.01           0         0.01           0         0.001           0         1.80           0         102.00	06/2 07/( 12/( 12/2 06/2 06/2 03/2 03/2 03/2 07/( 06/2 03/2 07/( 06/2 07/2 0 06/2 07/2 00/2 07/2 00/2 00/2 00/2 00/2 00	25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989 16/2010 26/1991 30/1990 16/2010 01/1997 26/1991 30/1990 16/2010 01/1997 26/1991 27/2001 03/2012 10/2020 21/1989 11/2019 27/1990	473.31 <b>Average</b> 0.24 0.02 0.18 0.01 0.68 0.01 2.29 0.01 0.01 0.01 0.01 0.17 0.06 0.13 1.37 0.03 0.0005 0.14 0.02 1.28 0.001 16.89 348.55	Ft. Units mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica,	No. of Samples 30 30 29 186 29 183 29 30 30 29 29 29 185 29 30 29 30 29 30 29 30 29 30 30 29 30 30 29 30 30 29 30 30 29 30 30 29 30 30 29 30 30 30 30 30 30 30 30 30 30 30 30 30	High 1.54 0.30 0.43 0.01 3.30 0.01 13.00 0.01 13.00 0.01 0.02 0.93 0.10 0.20 8.00 0.07 0.001 0.60 0.03 13.00 0.001 35.90	Date 03/30/1990 10/21/1989 08/02/2006 06/26/1991 03/25/1991 10/21/1989 06/26/1991 06/26/1991 06/25/2007 03/30/1990 10/21/1989 10/21/1989 10/21/1989 10/21/1989 10/21/1989	4         432.37           Low           0         0.04           0         0.00           3         0.02           0         0.01           1         0.35           0         0.01           1         0.050           1         0.01           0         0.01           0         0.01           0         0.01           0         0.01           0         0.02           0         0.01           0         0.01           0         0.02           0         0.01           0         0.01           0         0.02           0         0.01           0         0.02           0         0.01           0         0.01           0         0.01           0         0.01           0         0.01           0         0.001           0         1.80           0         102.00           2         0.06	06/2 07/0 12/0 12/2 06/2 01/2 06/2 03/2 03/2 07/0 06/2 03/2 07/0 06/2 07/2 00/2 07/2 00/2 00/2 00/2 00/2 00	25/2014 Date 01/1997 03/2012 26/2018 26/1991 27/2004 21/1989 16/2010 26/1991 30/1990 07/1999 26/1991 30/1990 16/2010 01/1997 26/1991 27/2001 01/1997 26/1991 27/2001 03/2012 10/2020 21/1989 11/2019	473.31 <b>Average</b> 0.24 0.02 0.18 0.01 0.68 0.01 2.29 0.01 0.01 0.01 0.17 0.06 0.13 1.37 0.03 0.0005 0.14 0.02 1.28 0.001 16.89	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Table 24: 89-1 Quarterly B-Groove Aquifer

DAUB & ASSOCIATES, INC. 201 3 - A CONTRACTOR



Deremetere	No. of							
Parameters Wet Chemistry	No. of		High	Date	Low	Date	Average	Units
Bicarbonate as	<u>Sample</u> 130	S	1,790.00	09/14/2004	419.00	03/23/2005	768.54	mg/l
Carbonate as	130		419.00	03/23/2005	4.00	06/16/1997	88.55	mg/l
Total Alkalinity as	130		1,790.00	09/14/2004	680.00	06/15/2014	853.71	mg/l
Bromide	130		1.50	07/21/1992	0.10	01/29/1991	0.44	mg/l
Cation-Anion	129		36.90	08/10/2008	-33.50	09/14/2004	-1.58	%
Sum of Anions	120		37.50	09/14/2004	15.00	06/26/2002	18.92	meg/l
Sum of Cations	120		39.50	08/10/2008	11.10	11/23/2010	18.23	meq/l
Chemical	21		210.00	09/15/2007	10.00	08/14/1995	75.00	mg/l
Chloride	130		293.00	06/14/2008	9.75	01/16/2018	23.47	mg/l
Conductivity,	130		2,200.00	05/16/2007	1,280.00	07/21/1992	1,598.14	µmhos
Fluoride	130		98.00	03/24/1999	9.00	12/11/2001	23.07	ma/l
Hardness as	126		47.00	10/09/2019	1.00	10/25/1990	15.12	mg/l
Nitrate as N,	26		0.27	06/24/2004	0.04	01/29/1991	0.11	mg/l
Nitrate/Nitrite	26		0.27	06/24/2004	0.04	01/29/1991	0.12	mg/l
Nitrite as N,	26		0.03	08/16/1994	0.00	01/29/1991	0.02	mg/l
Nitrogen,	25		10.90	08/16/1996	0.83	06/28/2006	1.63	mg/l
Nitrogen,	25		12.00	09/15/2007	0.20	01/29/1991	3.56	mg/l
Nitrogen, Total	25		13.00	09/15/2007	0.20	08/14/1995	4.26	mg/l
pH, lab	127		9.00	04/24/1991	7.40	06/16/1997	8.70	units
Phosphate,	21		155.00	06/28/2006	0.06	05/08/2020	8.29	mg/l
Phosphorus,	24		3.63	08/01/1990	0.00	06/28/2006	0.29	mg/l
SAR in Water	121		198.04	10/25/1990	0.02	04/24/1991	48.17	
SAR II Water Sulfate	86		333.00	01/20/1992	0.60	09/29/1997	49.26	none ma/l
Sulfide	19		6.21	08/01/1992	0.00	06/28/2006	0.76	mg/l mg/l
Total Dissolved	128		1,490.00	08/10/2008	813.00	11/23/2010	1,013.63	mg/l
Conductivity,	128		2,200.00	05/16/2007	1,135.00	06/16/1997	1,554.03	µmhos
pH, Field	188		10.60	12/16/2002	7.00	10/09/2019	8.67	units
	Temperature	129	19.70	05/01/2002	7.90	02/09/2021	12.31	(°C)
Water Level,	108	547.40	06/14/2011			5/2016	530.70	Ft.
	100	347.40	00/14/201	1 307.30	01/1	5/2010	550.70	11.
Parameters	No. of				_			
Metals	Samples	High	Date	Low	D	ate	Average	Units
Aluminum,	26	9.47	06/16/1997	7 0.04	06/1	4/2000	1.73	mg/l
Arsenic,	26	0.02	08/01/1990			7/2012	0.00	mg/l
Barium,	26	0.96	06/16/1997			8/1990	0.36	mg/l
Beryllium,	26	U	06/16/1997			8/1990	U	mg/l
Boron,	131	0.93	03/18/2004			1/1994	0.74	mg/l
Cadmium,	26	0.03	07/21/1993			1/1993	0.03	mg/l
Calcium,	131	15.00	10/09/2019			2/2008	2.54	mg/l
Chromium,	26	U	06/16/1997			8/1990	<u> </u>	mg/l
Copper,	26	0.40	07/31/1991	-		4/2004	0.21	mg/l
Iron, dissolved	26	12.10	06/16/1997			6/2005	1.65	mg/l
Lead, dissolved	26	0.07	06/16/1997			1/1992	0.06	mg/l
Lithium,	25	0.15	06/09/1999			1/1993	0.13	mg/l
Magnesium,	131	8.00	10/30/1991			2/2008	2.20	mg/l
Manganese,	25	0.08	06/16/1997			8/2006	0.02	mg/l
Manganese, Mercury,	25	0.08	07/31/1991			<u>.8/2006</u> 4/1995	0.02	mg/l
Molybdenum,	26	0.02	07/31/199			<u>4/1995</u> 6/1996	0.01	mg/l
Nickel,	26	0.14	01/29/1991			1/2010	0.07	mg/l
			07/31/1991					
Potassium,	131	12.00				3/1994	1.65	mg/l
Selenium,	26	0.001	08/08/1990			8/1990	0.001	mg/l
Silica,	131	122.00	10/30/1991			4/1991	19.50	mg/l
O - 11	404	000 00	00/40/0000					
Sodium,	131	882.00	08/10/2008			3/2010	408.50	mg/l
Strontium,	131	1.30	04/20/1992	2 0.06	06/1	4/2000	0.69	mg/l
				2 0.06 7 U	06/1 08/0			

#### Table 25: 90-3 Quarterly B-Groove Aquifer

DAUB & ASSOCIATES, INC. 201 HE TO THE THE THE AND THE



Demonstrate			1				1
Parameters Wet Chemistry	No. of	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3	Samples 153	1,010.00	08/07/1997	283.00	02/16/2007	634.63	mg/l
Carbonate as CaCO3	153	581.00	08/21/2003	8.00	05/26/2000	138.31	mg/l
Total Alkalinity as CaCO3	153	1,160.00	08/21/2003	364.00	02/16/2007	769.19	mg/l
Bromide	19	3.00	09/02/1998	0.10	05/18/2006	0.49	mg/l
Cation-Anion Balance	152	42.30	03/17/2009	-36.30	08/07/1997	-1.65	%
Sum of Anions	152	30.80	08/07/1997	9.10	02/16/2007	17.37	 meq/l
Sum of Cations	152	43.20	03/17/2009	6.70	02/16/2007		meq/l
Chemical Oxygen Demand	16	470.00	08/25/2005	10.00	09/14/2000	<u>16.84</u> 140.31	
	152	249.00		U 10.00		24.58	mg/l
Chloride Conductivity, Lab	152		08/07/1997	769.00	09/25/2002	1,514.95	mg/l
		3,980.00	08/07/1997		02/16/2007 06/14/2008	24.04	µmhos
Fluoride	152	56.00	03/25/1998	12.80		-	mg/l
Hardness as CaCO3	152	48.00	04/19/2001	1.00	02/16/2007	10.79	mg/l
Nitrate as N, dissolved	19	0.53	09/25/2002	0.03	08/30/2008	0.20	mg/l
Nitrate/Nitrite as N,	19	0.53	09/25/2002	0.02	05/18/2006	0.17	mg/l
Nitrite as N, dissolved	19	0.02	05/18/2006	0.02	05/18/2006	0.02	mg/l
Nitrogen, Ammonia	17	5.00	09/29/1997	0.72	09/29/2006	1.87	mg/l
Nitrogen, Organic	17	28.00	09/25/2002	0.30	09/22/1999	7.59	mg/l
Nitrogen, Total Kjeldahl	17	28.00	09/25/2002	1.40	09/15/1997	9.36	mg/l
pH, lab	152	22.10	05/01/2020	7.00	12/12/2008	9.06	units
Phosphate, total	15	155.00	05/18/2006	0.08	09/15/1997	22.53	mg/l
Phosphorus, total	17	0.51	09/24/2003	0.03	07/07/2022	0.12	mg/l
SAR in Water	151	148.00	11/23/2010	19.80	04/19/2001	58.80	none
Sulfate	150	70.00	10/30/2003	0.70	11/20/2000	12.83	mg/l
Sulfide	15	1.50	09/24/2003	0.03	09/29/2006	0.33	mg/l
Total Dissolved Solids	152	1,510.00	03/17/2009	453.00	02/16/2007	933.26	mg/l
Conductivity, Field	165	3,980.00	08/07/1997	1,310.00	02/08/2000	1,525.72	µmhos
pH, Field	165	10.69	07/29/2009	6.35	08/30/2008	8.93	units
Temperature (°C), Field							
	117	16.70	07/07/2022	8.60	12/01/2003	12.71	(°C)
	<u>117</u> 117	<u>16.70</u> 541.70	07/07/2022	8.60 493.67	<u>12/01/2003</u> 07/01/2001	<u>12.71</u> 522.68	(°C) Ft.
Water Level, Field	117	16.70 541.70	07/07/2022 07/07/2022	8.60 493.67	12/01/2003 07/01/2001	12.71 522.68	(°C) Ft.
		541.70	07/07/2022	493.67	07/01/2001	522.68	Ft.
Water Level, Field	117						
Water Level, Field Parameters Metals	117 <b>No. of</b>	541.70	07/07/2022	493.67	07/01/2001	522.68	Ft.
Water Level, Field Parameters Metals Aluminum, dissolved	117 No. of Samples	541.70 High	07/07/2022 Date	493.67 Low	07/01/2001 Date 11/16/2007	522.68 Average	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	117 <b>No. of</b> <b>Samples</b> 19 19	541.70 High 7.96 0.00	07/07/2022 Date 09/25/2002 09/29/1997	493.67 Low 0.03 0.00	07/01/2001 Date 11/16/2007 11/27/2012	522.68 Average 1.06 0.00	Ft. Units mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	117 <b>No. of</b> <b>Samples</b> 19 19 19	541.70 High 7.96	07/07/2022 Date 09/25/2002 09/29/1997 09/25/2002	493.67 Low 0.03	07/01/2001 Date 11/16/2007 11/27/2012 09/29/2006	522.68 Average 1.06	Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	117 No. of Samples 19 19 19 19 19	541.70 High 7.96 0.00 1.26 U	07/07/2022 Date 09/25/2002 09/29/1997 09/25/2002 11/27/2012	493.67 Low 0.03 0.00 0.13 U	07/01/2001 Date 11/16/2007 11/27/2012 09/29/2006 09/29/1997	522.68 Average 1.06 0.00 0.31 U	Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	117 <b>No. of</b> <b>Samples</b> 19 19 19 19 19 19	541.70 High 7.96 0.00 1.26	07/07/2022 Date 09/25/2002 09/29/1997 09/25/2002 11/27/2012 03/17/2009	493.67 Low 0.03 0.00 0.13	07/01/2001 Date 11/16/2007 11/27/2012 09/29/2006 09/29/1997 04/19/2001	522.68 Average 1.06 0.00 0.31	Ft. Units mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	117 No. of Samples 19 19 19 19 19 151 19	541.70 High 7.96 0.00 1.26 U 1.67 U	07/07/2022 Date 09/25/2002 09/29/1997 09/25/2002 11/27/2012 03/17/2009 11/27/2012	493.67 Low 0.03 0.00 0.13 U 0.22 U	07/01/2001 Date 11/16/2007 11/27/2012 09/29/2006 09/29/1997 04/19/2001 09/29/1997	522.68 Average 1.06 0.00 0.31 U 0.82 U	Ft. Units mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	117 No. of Samples 19 19 19 19 19 151 19 150	541.70 High 7.96 0.00 1.26 U 1.67 U 8.80	07/07/2022 Date 09/25/2002 09/29/1997 09/25/2002 11/27/2012 03/17/2009 11/27/2012 12/12/2008	493.67 Low 0.03 0.00 0.13 U 0.22 U 0.20	07/01/2001 Date 11/16/2007 11/27/2012 09/29/2006 09/29/1997 04/19/2001 09/29/1997 11/23/2010	522.68 Average 1.06 0.00 0.31 U 0.82 U 2.23	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	117 No. of Samples 19 19 19 19 151 19 150 19	541.70 High 7.96 0.00 1.26 U 1.67 U 8.80 0.02	07/07/2022 Date 09/25/2002 09/29/1997 09/25/2002 11/27/2012 03/17/2009 11/27/2012 12/12/2008 09/29/1997	493.67 Low 0.03 0.00 0.13 U 0.22 U 0.20 0.02	07/01/2001 Date 11/16/2007 11/27/2012 09/29/2006 09/29/1997 04/19/2001 09/29/1997 11/23/2010 09/29/1997	522.68 Average 1.06 0.00 0.31 U 0.82 U 2.23 0.02	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	117 No. of Samples 19 19 19 19 151 19 150 19 19 19	541.70 High 7.96 0.00 1.26 U 1.67 U 8.80 0.02 0.38	07/07/2022 Date 09/25/2002 09/29/1997 09/25/2002 11/27/2012 03/17/2009 11/27/2012 12/12/2008 09/29/1997 09/25/2002	493.67 Low 0.03 0.00 0.13 U 0.22 U 0.20 0.02 0.01	07/01/2001 Date 11/16/2007 11/27/2012 09/29/2006 09/29/1997 04/19/2001 09/29/1997 11/23/2010 09/29/1997 09/24/2003	522.68 Average 1.06 0.00 0.31 U 0.82 U 2.23 0.02 0.09	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	117 <b>No. of</b> <b>Samples</b> 19 19 19 151 19 150 19 19 19 19 19 19 19 19 19 19	541.70 High 7.96 0.00 1.26 U 1.67 U 8.80 0.02 0.38 29.40	07/07/2022 Date 09/25/2002 09/29/1997 09/25/2002 11/27/2012 03/17/2009 11/27/2012 12/12/2008 09/29/1997 09/25/2002 09/25/2002	493.67 Low 0.03 0.00 0.13 U 0.22 U 0.20 0.02 0.01 0.03	07/01/2001 Date 11/16/2007 11/27/2012 09/29/2006 09/29/1997 04/19/2001 09/29/1997 11/23/2010 09/29/1997 09/24/2003 03/14/2008	522.68 Average 1.06 0.00 0.31 U 0.82 U 2.23 0.02 0.09 2.66	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	117 <b>No. of</b> <b>Samples</b> 19 19 19 151 19 150 19 19 19 19 19 19 19 19 19 19	541.70 High 7.96 0.00 1.26 U 1.67 U 8.80 0.02 0.38 29.40 0.88	07/07/2022 Date 09/25/2002 09/29/1997 09/25/2002 11/27/2012 03/17/2009 11/27/2012 12/12/2008 09/29/1997 09/25/2002 09/25/2002 09/25/2002	493.67 Low 0.03 0.00 0.13 U 0.22 U 0.20 0.02 0.01 0.03 0.05	07/01/2001 Date 11/16/2007 11/27/2012 09/29/2006 09/29/1997 04/19/2001 09/29/1997 11/23/2010 09/29/1997 09/24/2003 03/14/2008 09/21/2010	522.68 Average 1.06 0.00 0.31 U 0.82 U 2.23 0.02 0.09 2.66 0.36	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	117 <b>No. of</b> <b>Samples</b> 19 19 19 151 19 150 19 19 19 19 19 19 19 19 19 19	541.70 High 7.96 0.00 1.26 U 1.67 U 8.80 0.02 0.38 29.40 0.88 0.20	07/07/2022 Date 09/25/2002 09/29/1997 09/25/2002 11/27/2012 03/17/2009 11/27/2012 12/12/2008 09/29/1997 09/25/2002 09/25/2002 09/25/2002 09/25/2002 09/25/2002	493.67 Low 0.03 0.00 0.13 U 0.22 U 0.20 0.02 0.02 0.01 0.03 0.05 0.12	07/01/2001 Date 11/16/2007 11/27/2012 09/29/2006 09/29/1997 04/19/2001 09/29/1997 11/23/2010 09/29/1997 09/24/2003 03/14/2008 09/21/2010 08/30/2008	522.68 Average 1.06 0.00 0.31 U 0.82 U 2.23 0.02 0.09 2.66 0.36 0.16	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	117 <b>No. of</b> <b>Samples</b> 19 19 19 151 19 150 19 19 19 19 19 19 19 19 19 19	541.70 High 7.96 0.00 1.26 U 1.67 U 8.80 0.02 0.38 29.40 0.88 0.20 9.40	07/07/2022 Date 09/25/2002 09/29/1997 09/25/2002 11/27/2012 03/17/2009 11/27/2012 12/12/2008 09/29/1997 09/25/2002 09/25/2002 09/25/2002 09/25/2002 09/25/2002 09/25/2002 09/25/2002	493.67 Low 0.03 0.00 0.13 U 0.22 U 0.20 0.02 0.01 0.03 0.05 0.12 0.20	07/01/2001 Date 11/16/2007 11/27/2012 09/29/2006 09/29/1997 04/19/2001 09/29/1997 11/23/2010 09/29/1997 09/24/2003 03/14/2008 09/21/2010 08/30/2008 09/29/2006	522.68 Average 1.06 0.00 0.31 U 0.82 U 2.23 0.02 0.09 2.66 0.36 0.16 1.28	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved	117 <b>No. of</b> <b>Samples</b> 19 19 19 151 19 150 19 19 19 19 19 19 19 19 19 19	541.70 High 7.96 0.00 1.26 U 1.67 U 8.80 0.02 0.38 29.40 0.88 0.20 9.40 0.18	07/07/2022 Date 09/25/2002 09/29/1997 09/25/2002 11/27/2012 03/17/2009 11/27/2012 12/12/2008 09/29/1997 09/25/2002 09/25/2002 09/25/2002 09/02/1998 04/19/2001 09/25/2002	493.67 Low 0.03 0.00 0.13 U 0.22 U 0.20 0.02 0.01 0.03 0.05 0.12 0.20 0.01	07/01/2001 Date 11/16/2007 11/27/2012 09/29/2006 09/29/1997 04/19/2001 09/29/1997 11/23/2010 09/29/1997 09/24/2003 03/14/2008 09/21/2010 08/30/2008 09/29/2006 09/14/2000	522.68 Average 1.06 0.00 0.31 U 0.82 U 2.23 0.02 0.09 2.66 0.36 0.16 1.28 0.04	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Chromium, dissolved Lithium, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved	117 <b>No. of</b> <b>Samples</b> 19 19 19 151 19 150 19 19 19 19 19 19 19 19 19 19	541.70 High 7.96 0.00 1.26 U 1.67 U 8.80 0.02 0.38 29.40 0.88 0.20 9.40 0.18 0.00	07/07/2022 Date 09/25/2002 09/29/1997 09/25/2002 11/27/2012 12/12/2008 09/29/1997 09/25/2002 09/25/2002 09/25/2002 09/25/2002 09/02/1998 04/19/2001 09/25/2002 09/02/1998	493.67 Low 0.03 0.00 0.13 U 0.22 U 0.20 0.02 0.01 0.03 0.05 0.12 0.20 0.01 0.20 0.01 0.00	07/01/2001 Date 11/16/2007 11/27/2012 09/29/2006 09/29/1997 04/19/2001 09/29/1997 11/23/2010 09/29/1997 09/24/2003 03/14/2008 09/21/2010 08/30/2008 09/29/2006 09/14/2000 09/02/1998	522.68 Average 1.06 0.00 0.31 U 0.82 U 2.23 0.02 0.09 2.66 0.36 0.16 1.28 0.04 0.00	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved	117 <b>No. of</b> <b>Samples</b> 19 19 19 151 19 150 19 19 19 19 19 19 19 19 19 19	541.70 High 7.96 0.00 1.26 U 1.67 U 8.80 0.02 0.38 29.40 0.88 0.20 9.40 0.18 0.00 0.06	07/07/2022 Date 09/25/2002 09/29/1997 09/25/2002 11/27/2012 03/17/2009 11/27/2012 12/12/2008 09/29/1997 09/25/2002 09/25/2002 09/25/2002 09/02/1998 04/19/2001 09/25/2002 09/02/1998 09/29/1997	493.67 Low 0.03 0.00 0.13 U 0.22 U 0.20 0.02 0.01 0.03 0.05 0.12 0.20 0.01 0.00 0.01 0.00 0.01	07/01/2001 Date 11/16/2007 11/27/2012 09/29/2006 09/29/1997 04/19/2001 09/29/1997 11/23/2010 09/29/1997 09/24/2003 03/14/2008 09/21/2010 08/30/2008 09/29/2006 09/14/2000 09/02/1998 09/14/2004	522.68 Average 1.06 0.00 0.31 U 0.82 U 2.23 0.02 0.09 2.66 0.36 0.16 1.28 0.04 0.00 0.03	Ft. Units mg/I
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved	117 <b>No. of</b> <b>Samples</b> 19 19 19 151 19 150 19 19 19 19 19 19 19 19 19 19	541.70 High 7.96 0.00 1.26 U 1.67 U 8.80 0.02 0.38 29.40 0.88 0.20 9.40 0.18 0.00 0.06 0.05	07/07/2022 Date 09/25/2002 09/29/1997 09/25/2002 11/27/2012 03/17/2009 11/27/2012 12/12/2008 09/29/1997 09/25/2002 09/25/2002 09/02/1998 04/19/2001 09/25/2002 09/02/1998 09/29/1997 09/29/2006	493.67 Low 0.03 0.00 0.13 U 0.22 U 0.20 0.02 0.01 0.03 0.05 0.12 0.20 0.01 0.20 0.01 0.00 0.01 0.00 0.01 0.00	07/01/2001 Date 11/16/2007 11/27/2012 09/29/2006 09/29/1997 04/19/2001 09/29/1997 11/23/2010 09/29/1997 09/24/2003 03/14/2008 09/21/2010 08/30/2008 09/29/2006 09/14/2000 09/02/1998 09/14/2004 09/25/2002	522.68 Average 1.06 0.00 0.31 U 0.82 U 2.23 0.02 0.09 2.66 0.36 0.16 1.28 0.04 0.00 0.03 0.03	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved	117 <b>No. of</b> <b>Samples</b> 19 19 19 151 19 150 19 19 19 19 19 19 19 19 19 19	541.70 High 7.96 0.00 1.26 U 1.67 U 8.80 0.02 0.38 29.40 0.88 0.20 9.40 0.88 0.20 9.40 0.18 0.00 0.06 0.05 12.00	07/07/2022 Date 09/25/2002 09/29/1997 09/25/2002 11/27/2012 03/17/2009 11/27/2012 12/12/2008 09/29/1997 09/25/2002 09/25/2002 09/25/2002 09/02/1998 04/19/2001 09/25/2002 09/02/1998 09/29/1997 09/29/2006 08/07/1997	493.67 Low 0.03 0.00 0.13 U 0.22 U 0.20 0.02 0.01 0.03 0.05 0.12 0.20 0.01 0.20 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.02 1.20	07/01/2001 Date 11/16/2007 11/27/2012 09/29/2006 09/29/1997 04/19/2001 09/29/1997 11/23/2010 09/29/1997 09/24/2003 03/14/2008 09/21/2010 08/30/2008 09/29/2006 09/14/2000 09/02/1998 09/14/2004 09/25/2002 06/14/2001	522.68 Average 1.06 0.00 0.31 U 0.82 U 2.23 0.02 0.09 2.66 0.36 0.16 1.28 0.04 0.00 0.03 0.03 0.03 3.09	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	117 <b>No. of</b> <b>Samples</b> 19 19 19 151 19 150 19 19 19 19 19 19 19 19 19 19	541.70 High 7.96 0.00 1.26 U 1.67 U 8.80 0.02 0.38 29.40 0.88 0.20 9.40 0.88 0.20 9.40 0.18 0.00 0.06 0.05 12.00 U	07/07/2022 Date 09/25/2002 09/29/1997 09/25/2002 11/27/2012 12/12/2012 12/12/2008 09/29/1997 09/25/2002 09/29/1997 09/29/2006	493.67 Low 0.03 0.00 0.13 U 0.22 U 0.20 0.02 0.01 0.03 0.05 0.12 0.20 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.02 0.20 0.01 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.02 0.02 0.01 0.02 0.02 0.02 0.01 0.02 0.02 0.02 0.02 0.02 0.02 0.01 0.02	07/01/2001 Date 11/16/2007 11/27/2012 09/29/2006 09/29/1997 04/19/2001 09/29/1997 11/23/2010 09/29/1997 09/24/2003 03/14/2008 09/21/2010 08/30/2008 09/21/2010 08/30/2008 09/29/2006 09/14/2000 09/02/1998 09/14/2004 09/25/2002 06/14/2001 09/29/1997	522.68 Average 1.06 0.00 0.31 U 0.82 U 2.23 0.02 0.09 2.66 0.36 0.16 1.28 0.04 0.00 0.03 0.00 0	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	117 <b>No. of</b> <b>Samples</b> 19 19 19 151 19 150 19 19 19 19 19 19 19 19 19 19	541.70 High 7.96 0.00 1.26 U 1.67 U 8.80 0.02 0.38 29.40 0.88 0.20 9.40 0.88 0.20 9.40 0.18 0.00 0.06 0.05 12.00 U 50.20	07/07/2022 Date 09/25/2002 09/29/1997 09/25/2002 11/27/2012 12/12/2012 12/12/2012 12/12/2002 09/25/2002 09/25/2002 09/25/2002 09/02/1998 04/19/2001 09/25/2002 09/02/1998 09/29/1997 09/29/2006 08/07/1997 11/27/2012 09/25/2002	493.67 Low 0.03 0.00 0.13 U 0.22 U 0.20 0.02 0.01 0.03 0.05 0.12 0.20 0.01 0.03 0.05 0.12 0.20 0.01 0.00 0.01 0.00 0.01 0.02 1.20 U 1.20 U 1.20 U 1.20 U 1.20 U 1.20 U 1.20 0.12 0.21 0.02 0.02 0.01 0.02 0.02 0.02 0.01 0.02 0.02 0.02 0.02 0.02 0.02 0.01 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.01 0.02 0.01 0.02 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.01 0.02 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.12 0.02 0.01 0.02 0.12 0.02 0.01 0.02 1.20 0.12 0.02 0.12	07/01/2001 Date 11/16/2007 11/27/2012 09/29/2006 09/29/1997 04/19/2001 09/29/1997 11/23/2010 09/29/1997 09/24/2003 03/14/2008 09/21/2010 08/30/2008 09/29/2006 09/14/2001 09/25/2002 06/14/2001 09/29/1997 10/26/2004	522.68 Average 1.06 0.00 0.31 U 0.82 U 2.23 0.02 0.09 2.66 0.36 0.16 1.28 0.04 0.00 0.03 0.03 0.03 3.09 U 9.67	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Nickel, dissolved Potassium, dissolved Selenium, dissolved Silica, dissolved	117 <b>No. of</b> <b>Samples</b> 19 19 19 151 19 150 19 19 19 19 19 19 19 19 19 19	541.70 High 7.96 0.00 1.26 U 1.67 U 8.80 0.02 0.38 29.40 0.88 0.20 9.40 0.88 0.20 9.40 0.18 0.00 0.06 0.05 12.00 U 50.20 973.00	07/07/2022 Date 09/25/2002 09/29/1997 09/25/2002 11/27/2012 12/12/2012 12/12/2012 12/12/2002 09/25/2002 09/25/2002 09/25/2002 09/02/1998 04/19/2001 09/25/2002 09/02/1998 09/29/1997 09/29/1997 09/29/2006 08/07/1997 11/27/2012 09/25/2002 03/17/2009	493.67 Low 0.03 0.00 0.13 U 0.22 U 0.20 0.02 0.01 0.03 0.05 0.12 0.20 0.01 0.03 0.05 0.12 0.20 0.01 0.00 0.01 0.00 0.01 0.02 1.20 U 1.20 U 1.20 U 1.20 U 1.20 U 1.20 U 1.20 0.01 0.02 0.02 0.01 0.02 0.02 0.02 0.01 0.02 0.02 0.02 0.02 0.02 0.02 0.01 0.02 0.02 0.02 0.02 0.02 0.01 0.02 0.02 0.02 0.01 0.02 0.02 0.02 0.02 0.01 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.01 0.02 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.02 0.02 0.01 0.02	07/01/2001 Date 11/16/2007 11/27/2012 09/29/2006 09/29/1997 04/19/2001 09/29/1997 11/23/2010 09/29/1997 09/24/2003 03/14/2008 09/21/2010 08/30/2008 09/29/2006 09/14/2001 09/25/2002 06/14/2001 09/29/1997 10/26/2004 02/16/2007	522.68 Average 1.06 0.00 0.31 U 0.82 U 2.23 0.02 0.09 2.66 0.36 0.16 1.28 0.04 0.00 0.03 0.03 0.03 3.09 U 9.67 374.43	Ft. <b>Units</b> mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved Silica, dissolved Strontium, dissolved	117 <b>No. of</b> <b>Samples</b> 19 19 19 151 19 150 19 19 19 19 19 19 19 19 19 19	541.70 High 7.96 0.00 1.26 U 1.67 U 8.80 0.02 0.38 29.40 0.88 0.20 9.40 0.18 0.20 9.40 0.18 0.00 0.05 12.00 U 50.20 973.00 1.58	07/07/2022 Date 09/25/2002 09/29/1997 09/25/2002 11/27/2012 12/12/2012 12/12/2012 12/12/2002 09/25/2002 09/25/2002 09/25/2002 09/02/1998 04/19/2001 09/25/2002 09/02/1998 09/29/1997 09/29/2006 08/07/1997 11/27/2012 09/25/2002 03/17/2009 09/25/2002	493.67 Low 0.03 0.00 0.13 U 0.22 U 0.20 0.02 0.01 0.03 0.05 0.12 0.20 0.01 0.03 0.05 0.12 0.20 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.00 0.01 0.02 1.20 U 1.40 152.00 0.14	07/01/2001 Date 11/16/2007 11/27/2012 09/29/2006 09/29/1997 04/19/2001 09/29/1997 11/23/2010 09/29/1997 09/24/2003 03/14/2008 09/21/2010 08/30/2008 09/29/2006 09/14/2001 09/25/2002 06/14/2001 09/29/1997 10/26/2004 02/16/2007 02/16/2007	522.68           Average           1.06           0.00           0.31           U           0.82           U           2.23           0.02           0.09           2.66           0.36           0.16           1.28           0.04           0.03           0.03           0.03           0.03           0.03           0.03           0.03           0.03           0.03           0.03           0.03           0.03           0.03           0.03	Ft. <b>Units</b> mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	117 <b>No. of</b> <b>Samples</b> 19 19 19 151 19 150 19 19 19 19 19 19 19 19 19 19	541.70 High 7.96 0.00 1.26 U 1.67 U 8.80 0.02 0.38 29.40 0.88 0.20 9.40 0.88 0.20 9.40 0.18 0.00 0.06 0.05 12.00 U 50.20 973.00	07/07/2022 Date 09/25/2002 09/29/1997 09/25/2002 11/27/2012 12/12/2012 12/12/2012 12/12/2002 09/25/2002 09/25/2002 09/25/2002 09/02/1998 04/19/2001 09/25/2002 09/02/1998 09/29/1997 09/29/1997 09/29/2006 08/07/1997 11/27/2012 09/25/2002 03/17/2009	493.67 Low 0.03 0.00 0.13 U 0.22 U 0.20 0.02 0.01 0.03 0.05 0.12 0.20 0.01 0.03 0.05 0.12 0.20 0.01 0.00 0.01 0.00 0.01 0.02 1.20 U 1.20 U 1.20 U 1.20 U 1.20 U 1.20 U 1.20 0.01 0.02 0.02 0.01 0.02 0.02 0.02 0.01 0.02 0.02 0.02 0.02 0.02 0.02 0.01 0.02 0.02 0.02 0.02 0.02 0.01 0.02 0.02 0.02 0.01 0.02 0.02 0.02 0.02 0.01 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.01 0.02 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.02 0.01 0.02 0.01 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.01 0.02 0.02 0.02 0.02 0.01 0.02	07/01/2001 Date 11/16/2007 11/27/2012 09/29/2006 09/29/1997 04/19/2001 09/29/1997 11/23/2010 09/29/1997 09/24/2003 03/14/2008 09/21/2010 08/30/2008 09/29/2006 09/14/2001 09/25/2002 06/14/2001 09/29/1997 10/26/2004 02/16/2007	522.68 Average 1.06 0.00 0.31 U 0.82 U 2.23 0.02 0.09 2.66 0.36 0.16 1.28 0.04 0.00 0.03 0.03 0.03 3.09 U 9.67 374.43	Ft. <b>Units</b> mg/l

#### Table 26: BG-1 Monthly B-Groove Aquifer (P&A'd 2022)

DAUB & ASSOCIATES, INC.



Demonstrance	No. of						1
Parameters Wet Chemistry	No. of	High	Date	Low	Date	Average	Units
Wet Chemistry Bicarbonate as CaCO3	Samples 238	899.00	10/28/2002	524.00	09/14/2004	693.22	mg/l
Carbonate as CaCO3	238	210.00	07/30/2002	16.00	11/21/2004	94.19	mg/l
	238	984.00	05/07/2018	612.00	04/17/2002	783.88	
Total Alkalinity as CaCO3	31	0.10	08/12/2004	0.10	08/12/2002	0.10	mg/l mg/l
Bromide							
Cation-Anion Balance	237	13.40	08/02/2006	-12.80	05/07/2018	-2.25	%
Sum of Anions	237	22.00	05/07/2018	12.60	08/02/2006	17.72	meq/l
Sum of Cations	237	20.00	05/14/2020	13.60	04/29/2010	16.94	meq/l
Chemical Oxygen Demand	31	400.00	08/22/2002	10.00	08/02/2006	74.48	mg/l
Chloride	237	116.00	11/03/2020	2.00	08/02/2006	29.50	mg/l
Conductivity, Lab	237	1,960	01/12/2021	1,160	08/02/2006	1,568	µmhos
Fluoride	237	26.90	12/16/2003	2.09	06/06/2017	22.16	mg/l
Hardness as CaCO3	236	47.00	09/30/2008	5.00	11/27/2002	15.56	mg/l
Nitrate as N, dissolved	30	2.06	09/28/2006	0.03	11/06/2014	1.05	mg/l
Nitrate/Nitrite as N,	30	2.08	09/28/2006	0.02	05/18/2006	0.59	mg/l
Nitrite as N, dissolved	30	0.21	08/02/2006	0.01	05/18/2006	0.07	mg/l
Nitrogen, Ammonia	31	1.61	09/30/2008	0.43	05/14/2020	0.89	mg/l
Nitrogen, Organic	29	27.00	08/22/2002	0.50	08/02/2006	4.59	mg/l
Nitrogen, Total Kjeldahl	31	28.00	08/22/2002	1.00	04/13/2016	4.91	mg/l
pH, lab	238	9.20	05/21/2009	7.50	08/30/2008	8.78	units
Phosphate, total	27	155.00	05/18/2006	0.12	08/18/2010	38.97	mg/l
Phosphorus, total	31	0.32	05/14/2020	0.03	08/02/2006	0.08	mg/l
SAR in Water	236	73.30	12/16/2002	23.40	09/30/2008	42.89	none
Sulfate	235	50.00	09/28/2006	0.00	09/02/2015	12.06	mg/l
Sulfide	23	0.80	08/22/2002	0.03	09/28/2006	0.24	mg/l
Total Dissolved Solids	237	1,110	10/06/2020	789	08/02/2006	938	mg/l
Conductivity, Field	254	2,874	02/10/2016	1,101	10/05/2006	1,551	µmhos
pH, Field	253	10.01	07/29/2009	6.90	11/04/2019	8.52	units
Temperature (°C), Field	250	22.70	08/02/2016	5.80	01/26/2010	12.11	(°C)
Water Level, Field	246	547.26	11/10/2010	468.30	07/01/2002	506.49	Ft.
Water Level, Field	246						
Water Level, Field Parameters	246 No. of						
Water Level, Field Parameters Metals	246 No. of Samples	547.26 High	11/10/2010 Date	468.30 Low	07/01/2002 Date	506.49 Average	Ft. Units
Water Level, Field Parameters Metals Aluminum, dissolved	246 No. of Samples 33	547.26 High 1.26	11/10/2010 Date 05/14/2020	468.30 Low 0.03	07/01/2002 Date 05/18/2006	506.49 Average 0.19	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved	246 <b>No. of</b> <b>Samples</b> 33 33	547.26 High 1.26 0.00	11/10/2010           Date           05/14/2020           09/30/2008	468.30 Low 0.03 0.00	07/01/2002 Date 05/18/2006 05/04/2021	506.49 Average 0.19 0.00	Ft. Units mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	246 <b>No. of</b> <u>Samples</u> <u>33</u> <u>33</u> <u>33</u>	547.26 High 1.26 0.00 0.18	11/10/2010           Date           05/14/2020           09/30/2008           07/07/2022	468.30 Low 0.03 0.00 0.00	07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017	506.49 Average 0.19 0.00 0.03	Ft. Units mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	246 <b>No. of</b> <b>Samples</b> 33 33 33 33 33 33	547.26 High 1.26 0.00 0.18 U	11/10/2010           Date           05/14/2020           09/30/2008           07/07/2022           08/22/2002	468.30 Low 0.03 0.00 0.00 U	07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021	506.49 Average 0.19 0.00 0.03 U	Ft. Units mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	246 <b>No. of</b> <b>Samples</b> 33 33 33 33 33 238	547.26 High 1.26 0.00 0.18 U 0.97	11/10/2010           Date           05/14/2020           09/30/2008           07/07/2022           08/22/2002           07/12/2007	468.30 Low 0.03 0.00 0.00 U 0.34	07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003	506.49 Average 0.19 0.00 0.03 U 0.73	Ft. Units mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	246 <b>No. of</b> <b>Samples</b> 33 33 33 33 33 238 33	547.26 High 1.26 0.00 0.18 U 0.97 U	11/10/2010           Date           05/14/2020           09/30/2008           07/07/2022           08/22/2002           07/12/2007           08/22/2002	468.30 Low 0.03 0.00 0.00 U 0.34 U	07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021	506.49 Average 0.19 0.00 0.03 U 0.73 U	Ft. Units mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	246 <b>No. of</b> <b>Samples</b> 33 33 33 33 238 33 238 33 239	547.26 High 1.26 0.00 0.18 U 0.97 U 14.30	11/10/2010           Date           05/14/2020           09/30/2008           07/07/2022           08/22/2002           07/12/2007           08/22/2002           11/05/2021	468.30 Low 0.03 0.00 0.00 U 0.34 U 1.10	07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002	506.49 Average 0.19 0.00 0.03 U 0.73 U 2.99	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	246 <b>No. of</b> <b>Samples</b> 33 33 33 238 33 238 33 239 33	547.26 High 1.26 0.00 0.18 U 0.97 U 14.30 0.02	11/10/2010           Date           05/14/2020           09/30/2008           07/07/2022           08/22/2002           07/12/2007           08/22/2002           11/05/2021           09/28/2006	468.30 Low 0.03 0.00 0.00 U 0.34 U 1.10 0.02	07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006	506.49 Average 0.19 0.00 0.03 U 0.73 U 2.99 0.02	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	246 <b>No. of</b> <b>Samples</b> 33 33 33 238 33 238 33 239 33 33 33	547.26 High 1.26 0.00 0.18 U 0.97 U 14.30 0.02 U	11/10/2010           Date           05/14/2020           09/30/2008           07/07/2022           08/22/2002           07/12/2007           08/22/2002           11/05/2021           09/28/2006           08/22/2002	468.30 Low 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U	07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021	506.49 Average 0.19 0.00 0.03 U 0.73 U 2.99 0.02 U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	246 <b>No. of</b> <b>Samples</b> 33 33 33 238 33 238 33 239 33 33 33 33 33	547.26 High 1.26 0.00 0.18 U 0.97 U 14.30 0.02 U 2.08	11/10/2010           Date           05/14/2020           09/30/2008           07/07/2022           08/22/2002           07/12/2007           08/22/2002           11/05/2021           09/28/2006           08/22/2002	468.30 Low 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01	07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2004	506.49 Average 0.19 0.00 0.03 U 0.73 U 2.99 0.02 U 0.20	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	246 <b>No. of</b> <b>Samples</b> 33 33 33 238 33 239 33 33 33 33 33 33 33 33 33	547.26 High 1.26 0.00 0.18 U 0.97 U 14.30 0.02 U 2.08 0.04	11/10/2010           Date           05/14/2020           09/30/2008           07/07/2022           08/22/2002           07/12/2007           08/22/2002           11/05/2021           09/28/2006           08/22/2002           05/14/2020           05/14/2020           05/14/2020           05/06/2019	468.30 Low 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04	07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2004 05/06/2019	506.49 Average 0.19 0.00 0.03 U 0.73 U 2.99 0.02 U 0.20 0.04	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	246 No. of Samples 33 33 33 238 33 239 33 33 33 33 33 33 33 33 33 33	547.26 High 1.26 0.00 0.18 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17	11/10/2010           Date           05/14/2020           09/30/2008           07/07/2022           08/22/2002           07/12/2007           08/22/2002           11/05/2021           09/28/2006           08/22/2002           05/14/2020           05/14/2020           05/14/2020           05/14/2020           05/14/2020	468.30 Low 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.08	07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2004 05/06/2019 08/21/2003	506.49 Average 0.19 0.00 0.03 U 0.73 U 2.99 0.02 U 0.20 0.04 0.14	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	246 No. of Samples 33 33 33 238 33 239 33 33 33 33 33 33 33 33 33 238	547.26 High 1.26 0.00 0.18 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40	11/10/2010 Date 05/14/2020 09/30/2008 07/07/2022 08/22/2002 07/12/2007 08/22/2002 11/05/2021 09/28/2006 08/22/2002 05/14/2020 05/06/2019 05/06/2019 05/14/2020	468.30 <b>Low</b> 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.08 0.60	07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2004 05/06/2019 08/21/2003 11/27/2002	506.49 Average 0.19 0.00 0.03 U 0.73 U 2.99 0.02 U 0.20 0.04 0.14 1.95	Ft. Mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved	246 No. of Samples 33 33 33 238 33 239 33 33 33 33 33 33 33 33 33 33 33 33 3	547.26 High 1.26 0.00 0.18 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40 0.19	11/10/2010 Date 05/14/2020 09/30/2008 07/07/2022 08/22/2002 07/12/2007 08/22/2002 11/05/2021 09/28/2006 08/22/2002 05/14/2020 05/14/2020 05/06/2019 05/14/2020 09/30/2008 09/30/2008	468.30 Low 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.08 0.60 0.01	07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2004 05/06/2019 08/21/2003 11/27/2002 03/14/2008	506.49 <b>Average</b> 0.19 0.00 0.03 U 0.73 U 2.99 0.02 U 0.20 0.04 0.14 1.95 0.03	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Chromium, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved	246 No. of Samples 33 33 33 238 33 239 33 33 33 33 33 33 33 33 33 33 33 33 3	547.26 High 1.26 0.00 0.18 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40 0.19 U	11/10/2010 Date 05/14/2020 09/30/2008 07/07/2022 08/22/2002 07/12/2007 08/22/2002 11/05/2021 09/28/2006 08/22/2002 05/14/2020 05/06/2019 05/06/2019 05/14/2020 09/30/2008 09/30/2008	468.30 Low 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.08 0.60 0.01 0.0004	07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2004 05/06/2019 08/21/2003 11/27/2002 03/14/2008 09/28/2006	506.49 Average 0.19 0.00 0.03 U 0.73 U 2.99 0.02 U 0.20 0.04 0.14 1.95 0.03 U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved	246 No. of Samples 33 33 33 238 33 239 33 33 33 33 33 33 33 33 33 33 33 33 3	547.26 High 1.26 0.00 0.18 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40 0.19 U 0.12	11/10/2010 Date 05/14/2020 09/30/2008 07/07/2022 08/22/2002 07/12/2007 08/22/2002 11/05/2021 09/28/2006 08/22/2002 05/14/2020 05/06/2019 05/06/2019 05/14/2020 09/30/2008 09/30/2008 09/28/2006 08/22/2002	468.30 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.08 0.60 0.01 0.0004 0.01	07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2004 05/06/2019 08/21/2003 11/27/2002 03/14/2008 09/28/2006 08/18/2010	506.49 Average 0.19 0.00 0.03 U 0.73 U 2.99 0.02 U 0.20 0.04 0.14 1.95 0.03 U 0.04	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved	246 No. of Samples 33 33 33 238 33 239 33 33 33 33 33 33 33 33 33 33 33 33 3	547.26 High 1.26 0.00 0.18 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40 0.19 U 0.12 0.03	11/10/2010 Date 05/14/2020 09/30/2008 07/07/2022 08/22/2002 07/12/2007 08/22/2002 11/05/2021 09/28/2006 08/22/2002 05/14/2020 05/14/2020 05/06/2019 05/14/2020 09/30/2008 09/30/2008 09/28/2006 08/22/2002 09/30/2008	468.30 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.04 0.04 0.04 0.04 0.01 0.0004 0.01 0.001 0.001	07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2004 05/06/2019 08/21/2003 11/27/2002 03/14/2008 09/28/2006 08/18/2010 12/03/2012	506.49 Average 0.19 0.00 0.03 U 0.73 U 2.99 0.02 U 0.20 0.04 0.14 1.95 0.03 U 0.04 0.04 0.04 0.04 0.02	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved	246 <b>No. of</b> <b>Samples</b> 33 33 33 238 33 239 33 33 33 33 33 33 33 33 33	547.26 High 1.26 0.00 0.18 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40 0.19 U 0.12 0.03 6.20	11/10/2010 Date 05/14/2020 09/30/2008 07/07/2022 08/22/2002 07/12/2002 07/12/2002 07/12/2002 08/22/2002 05/14/2020 05/06/2019 05/14/2020 05/06/2019 05/14/2020 09/30/2008 09/30/2008 09/28/2006 08/22/2002 09/30/2008 09/30/2008 09/30/2008 09/30/2008 09/30/2008	468.30 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.04 0.08 0.60 0.01 0.0004 0.01 0.002 0.001 0.002 0.001 0.002 0.001 0.002 0.001 0.002 0.001 0.002 0.001 0.002 0.001 0.002 0.001 0.002 0.001 0.002 0.001 0.002 0.001 0.001 0.002 0.001 0.001 0.002 0.001 0.00	07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2004 05/06/2019 08/21/2003 11/27/2002 03/14/2008 09/28/2006 08/18/2010 12/03/2012 11/21/2008	506.49 Average 0.19 0.00 0.03 U 0.73 U 2.99 0.02 U 0.20 0.04 0.14 1.95 0.03 U 0.03 U 0.04 0.03 U 0.04 0.03 0.04 0.03 0.02 1.56	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	246 No. of Samples 33 33 33 238 33 239 33 33 33 33 33 33 33 33 33 33 33 33 3	547.26 High 1.26 0.00 0.18 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40 0.19 U 0.12 0.03 6.20 U	11/10/2010           Date           05/14/2020           09/30/2008           07/07/2022           08/22/2002           07/12/2007           08/22/2002           07/12/2007           08/22/2002           01/05/2021           09/28/2006           08/22/2002           05/14/2020           05/14/2020           05/06/2019           05/14/2020           09/30/2008           09/28/2006           08/22/2002           09/30/2008           09/28/2006           08/22/2002           09/30/2008           09/30/2008           07/24/2002           05/06/2019	468.30 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.04 0.04 0.04 0.04 0.04 0.01 0.0004 0.01 0.002 0.001 0.002 0.001 0.002 0.001 0.002 0.001 0.002 0.001 0.002 0.001 0.002 0.001 0.002 0.001 0.002 0.001 0.002 0.001 0.002 0.001 0.001 0.002 0.001 0.0001 0.0001 0.0001 0.001 0.00001 0.0001 0.0000000000	07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2004 05/06/2019 08/21/2003 11/27/2002 03/14/2008 09/28/2006 08/18/2010 12/03/2012 11/21/2008 05/06/2019	506.49 Average 0.19 0.00 0.03 U 0.73 U 2.99 0.02 U 0.20 0.04 0.20 0.04 0.14 1.95 0.03 U 0.03 U 0.04 0.03 0.04 0.02 1.56 0.0001	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Calcium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	246 <b>No. of</b> <b>Samples</b> 33 33 33 238 33 239 33 33 33 33 33 33 33 33 33	547.26 High 1.26 0.00 0.18 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40 0.19 U 0.12 0.03 6.20 U 29.30	11/10/2010           Date           05/14/2020           09/30/2008           07/07/2022           08/22/2002           07/12/2007           08/22/2002           11/05/2021           09/30/2008           08/22/2002           11/05/2021           09/28/2006           08/22/2002           05/14/2020           05/14/2020           05/06/2019           05/14/2020           09/30/2008           09/28/2006           08/22/2002           09/30/2008           09/28/2006           08/22/2002           09/30/2008           07/24/2002           05/06/2019           05/06/2019           04/17/2002	468.30 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.04 0.04 0.04 0.04 0.04 0.01 0.0004 0.01 0.0004 0.01 0.00 0.0	07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2004 05/06/2019 08/21/2003 11/27/2002 03/14/2008 09/28/2006 08/18/2010 12/03/2012 11/21/2008 05/06/2019 08/21/2003	506.49 Average 0.19 0.00 0.03 U 0.73 U 2.99 0.02 U 0.20 0.04 0.20 0.04 0.14 1.95 0.03 U 0.03 U 0.04 0.03 U 0.04 0.03 1.95 0.03 U 0.04 0.03 1.95 0.03 U 0.04 0.03 1.95 0.02 1.95 0.03 1.95 0.03 1.95 0.03 1.95 0.02 1.95 0.02 1.95 0.02 1.95 0.02 1.95 0.02 1.95 0.02 1.95 0.02 1.95 0.02 1.95 0.02 1.95 0.02 1.95 0.02 1.95 0.02 1.95 0.02 1.95 0.02 1.95 0.02 1.95 0.02 1.95 0.02 1.95 0.02 1.95 0.03 1.95 0.03 1.95 0.03 1.95 0.03 1.95 0.03 1.95 0.02 1.95 0.03 1.95 0.03 1.95 0.03 1.95 0.03 1.95 0.02 1.56 0.0001 1.464	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved Sodium, dissolved	246 <b>No. of</b> <b>Samples</b> 33 33 33 238 33 239 33 33 33 33 33 33 33 33 33	547.26 High 1.26 0.00 0.18 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40 0.19 U 0.12 0.03 6.20 U 29.30 451.00	11/10/2010           Date           05/14/2020           09/30/2008           07/07/2022           08/22/2002           07/12/2007           08/22/2002           01/07/2021           09/30/2008           09/28/2002           05/14/2020           05/14/2020           09/28/2006           08/22/2002           05/14/2020           05/06/2019           05/14/2020           09/30/2008           09/30/2008           09/28/2006           08/22/2002           09/30/2008           09/28/2002           09/30/2008           07/24/2002           05/06/2019           04/17/2002           08/03/2021	468.30 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.04 0.04 0.04 0.04 0.04 0.01 0.0004 0.01 0.0004 0.01 0.001 0.001 0.00 0.001 0.00	07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2004 05/06/2019 08/21/2003 09/28/2006 08/18/2010 12/03/2012 11/21/2008 05/06/2019 08/21/2003 09/11/2013	506.49 Average 0.19 0.00 0.03 U 0.73 U 2.99 0.02 U 0.20 0.04 0.20 0.04 0.14 1.95 0.03 U 0.03 U 0.04 0.03 U 0.04 0.02 1.56 0.0001 14.64 375.55	Ft. Units mg/l
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved Silica, dissolved Strontium, dissolved	246 <b>No. of</b> <b>Samples</b> 33 33 33 238 33 239 33 33 33 33 33 33 33 33 33	547.26 High 1.26 0.00 0.18 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40 0.19 U 0.12 0.03 6.20 U 29.30 451.00 0.93	11/10/2010           Date           05/14/2020           09/30/2008           07/07/2022           08/22/2002           07/12/2007           08/22/2002           07/12/2007           08/22/2002           11/05/2021           09/28/2006           08/22/2002           05/14/2020           05/14/2020           05/06/2019           05/14/2020           09/30/2008           09/30/2008           09/28/2006           08/22/2002           09/30/2008           09/28/2006           08/22/2002           09/30/2008           09/30/2008           07/24/2002           05/06/2019           04/17/2002           08/03/2021           11/03/2020	468.30 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.04 0.04 0.04 0.04 0.04 0.01 0.004 0.01 0.0004 0.01 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.001 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.000 0.0000 0.000 0.000 0.000 0.000 0.000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.00000 0.00000 0.000000 0.00000000	07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2004 05/06/2019 08/21/2003 09/28/2006 08/18/2010 12/03/2012 11/21/2008 05/06/2019 08/21/2003 09/11/2013 04/27/2004	506.49           Average           0.19           0.00           0.73           U           2.99           0.02           U           0.20           0.44           1.95           0.03           U           0.20           1.4           1.95           0.03           U           0.04           0.03           U           0.04           0.05           0.04           0.05           0.03           U           0.03           U           0.04           0.02           1.56           0.0001           14.64           375.55           0.53	Ft. Mg/I mg/I
Water Level, Field Parameters Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Chromium, dissolved Lead, dissolved Lead, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	246 <b>No. of</b> <b>Samples</b> 33 33 33 238 33 239 33 33 33 33 33 33 33 33 33	547.26 High 1.26 0.00 0.18 U 0.97 U 14.30 0.02 U 2.08 0.04 0.17 4.40 0.19 U 0.12 0.03 6.20 U 29.30 451.00	11/10/2010           Date           05/14/2020           09/30/2008           07/07/2022           08/22/2002           07/12/2007           08/22/2002           01/07/2021           09/30/2008           09/28/2002           05/14/2020           05/14/2020           09/28/2006           08/22/2002           05/14/2020           05/06/2019           05/14/2020           09/30/2008           09/30/2008           09/28/2006           08/22/2002           09/30/2008           09/28/2002           09/30/2008           07/24/2002           05/06/2019           04/17/2002           08/03/2021	468.30 0.03 0.00 0.00 U 0.34 U 1.10 0.02 U 0.01 0.04 0.04 0.04 0.04 0.04 0.04 0.01 0.0004 0.01 0.0004 0.01 0.001 0.001 0.00 0.001 0.00	07/01/2002 Date 05/18/2006 05/04/2021 07/06/2017 05/04/2021 08/21/2003 05/04/2021 12/16/2002 09/28/2006 05/04/2021 08/12/2004 05/06/2019 08/21/2003 09/28/2006 08/18/2010 12/03/2012 11/21/2008 05/06/2019 08/21/2003 09/11/2013	506.49 Average 0.19 0.00 0.03 U 0.73 U 2.99 0.02 U 0.20 0.04 0.20 0.04 0.14 1.95 0.03 U 0.03 U 0.04 0.03 U 0.04 0.02 1.56 0.0001 14.64 375.55	Ft. Units mg/l

#### Table 27: BG-4 Monthly B-Groove Aquifer

DAUB & ASSOCIATES, INC. 201 Harris Contraction States



Parameters	No. of							
Wet Chemistry	Samples		High	Date	Low	Date	Average	Units
Bicarbonate as	<u>149</u>		869.00	12/18/2013	541.00	12/08/2010	673.48	mg/l
Carbonate as	149		219.00	12/08/2010	48.10	02/10/2020	86.75	mg/l
Total Alkalinity	149		1,040.00	12/18/2013	633.00	06/11/2014	759.09	mg/l
Bromide	15		U	01/13/2011	U	07/07/2022	U	mg/l
Cation-Anion	148		5.90	04/09/2014	-9.70	01/12/2021	-2.36	%
Sum of Anions	148		23.00	12/18/2013	14.30	06/11/2014	16.86	meq/l
Sum of Cations	148		20.00	12/18/2013	13.10	04/11/2011	16.08	meq/l
Chemical	14		800.00	01/13/2011	10.00	07/07/2022	214.17	mg/l
Chloride	148		70.00	12/08/2010	10.00	01/20/2011	15.57	mg/l
Conductivity,	149		8,820	06/03/2019	1,320	07/05/2017	1,558	µmhos
Fluoride	148		27.80	06/03/2019	14.60	09/17/2012	23.37	mg/l
Hardness as	148		17.00	03/07/2022	10.00	09/11/2013	12.64	mg/l
Nitrate as N,	15		0.03	12/27/2012	0.03	12/27/2012	0.03	mg/l
Nitrate/Nitrite as	15		0.03	12/27/2012	0.03	12/27/2012	0.03	mg/l
Nitrite as N,	15		U	01/13/2011	U	07/07/2022	U	mg/l
Nitrogen,	14		0.95	10/12/2015	0.71	01/20/2011	0.82	mg/l
Nitrogen,	14		8.30	01/13/2011	0.25	07/07/2022	2.30	mg/l
Nitrogen, Total	14		9.00	01/13/2011	1.00	05/14/2020	2.95	mg/l
pH, lab	149		9.40	12/08/2010	8.00	01/11/2022	8.79	units
Phosphate,	14		77.50	08/11/2011	0.09	01/13/2011	5.66	mg/l
Phosphorus,	14		0.09	07/10/2013	0.03	01/13/2011	0.04	mg/l
SAR in Water	148		56.60	12/18/2013	37.00	03/07/2022	44.38	none
Sulfate	148		20.00	01/13/2011	3.45	11/02/2016	12.06	mg/l
Sulfide	14		0.10	01/20/2011	0.03	07/10/2013	0.05	mg/l
Total Dissolved	148		1,130	12/18/2013	799	05/14/2014	882	mg/l
Conductivity,	146		2,413	09/17/2012	1,232	06/05/2017	1,482	µmhos
pH, Field	140		9.58	03/05/2012	6.60	11/04/2019	8.35	units
	Temperature	146	23.00	09/05/2017	4.62	11/22/2011	11.86	(°C)
Water Level,	remperature	140	20.00	05/05/2017	4.02	11/22/2011	11.00	(0)
	145	517.10	08/07/2017	493.	95	10/12/2015	507.54	Ft.
Field	145	517.10	08/07/2017	493.	95	10/12/2015	507.54	Ft.
Field								
Field Parameters	No. of	517.10 High	08/07/2017 Date	493. Lov		10/12/2015 Date	507.54 Average	Ft. Units
Field Parameters Metals	No. of Samples	High	Date	Lov	v	Date	Average	Units
Field Parameters Metals Aluminum,	No. of Samples 15	<b>High</b>	<b>Date</b> 01/13/2011	Lov	<b>v</b> 4	<b>Date</b> 01/13/2011	Average	Units mg/l
Field Parameters Metals Aluminum, Arsenic,	No. of Samples 15 15	High 0.04 0.06	Date 01/13/2011 01/13/2011	Lov 0.0 0.0	<b>v</b> 4 0	Date 01/13/2011 04/12/2016	Average 0.04 0.01	Units mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium,	No. of Samples 15 15 15	<b>High</b>	Date 01/13/2011 01/13/2011 01/13/2011	Lov 0.0 0.0 0.3	<b>v</b> 4 0 1	Date 01/13/2011 04/12/2016 07/05/2017	Average	Units mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium,	No. of Samples 15 15 15 15	High 0.04 0.06 0.39 U	Date 01/13/2011 01/13/2011 01/13/2011 05/04/2021	Lov 0.0 0.0 0.3 U	<b>v</b> 4 0 1	Date 01/13/2011 04/12/2016 07/05/2017 08/11/2011	Average 0.04 0.01 0.34 U	Units mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron,	No. of Samples 15 15 15 15 15 148	High 0.04 0.06 0.39 U 0.91	Date 01/13/2011 01/13/2011 01/13/2011 05/04/2021 12/18/2013	Lov 0.0 0.3 0.3 U 0.6	<b>v</b> 4 0 1 2	Date 01/13/2011 04/12/2016 07/05/2017 08/11/2011 12/08/2010	Average 0.04 0.01 0.34 U 0.72	Units mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium,	No. of Samples 15 15 15 15 15 148 15	High 0.04 0.06 0.39 U 0.91 U	Date 01/13/2011 01/13/2011 01/13/2011 05/04/2021 12/18/2013 05/04/2021	Lov 0.0 0.3 0.3 0.3 0.3 0.4 0.6 0.6	<b>v</b> 4 0 1 2	Date 01/13/2011 04/12/2016 07/05/2017 08/11/2011 12/08/2010 08/11/2011	Average 0.04 0.01 0.34 U 0.72 U	Units mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium,	No. of Samples 15 15 15 15 15 148 15 148	High 0.04 0.06 0.39 U 0.91 U 4.10	Date 01/13/2011 01/13/2011 01/13/2011 05/04/2021 12/18/2013 05/04/2021 03/07/2022	Lov 0.0 0.0 0.3 0.3 0.3 0.6 0.6 0.6 0.6 0.2 0.0	<b>v</b> 4 0 1 2 0	Date 01/13/2011 04/12/2016 07/05/2017 08/11/2011 12/08/2010 08/11/2011 09/11/2013	Average 0.04 0.01 0.34 U 0.72 U 2.43	Units mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium,	No. of Samples 15 15 15 15 15 148 15 148 15 148 15	High 0.04 0.06 0.39 U 0.91 U 4.10 0.01	Date 01/13/2011 01/13/2011 05/04/2021 12/18/2013 05/04/2021 03/07/2022 12/31/2018	Lov 0.0 0.3 0.3 0.6 0.6 0.6 0.0 0 0.0	v 4 0 1 2 0 1	Date 01/13/2011 04/12/2016 07/05/2017 08/11/2011 12/08/2010 08/11/2011 09/11/2013 12/31/2018	Average 0.04 0.01 0.34 U 0.72 U 2.43 0.01	Units mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper,	No. of Samples 15 15 15 15 15 148 15 148 15 148 15 15	High 0.04 0.06 0.39 U 0.91 U 4.10 0.01 0.04	Date 01/13/2011 01/13/2011 05/04/2021 12/18/2013 05/04/2021 03/07/2022 12/31/2018 05/06/2019	Lov 0.0 0.0 0.3 U 0.6 0.6 U 2.00 0.00 0.00	v 4 0 1 2 0 1 4	Date 01/13/2011 04/12/2016 07/05/2017 08/11/2011 12/08/2010 08/11/2011 09/11/2013 12/31/2018 05/06/2019	Average 0.04 0.01 0.34 U 0.72 U 2.43 0.01 0.04	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved	No. of Samples 15 15 15 15 15 148 15 148 15 148 15 15 15	High 0.04 0.06 0.39 U 0.91 U 4.10 0.01 0.04 0.19	Date 01/13/2011 01/13/2011 05/04/2021 12/18/2013 05/04/2021 03/07/2022 12/31/2018 05/06/2019 12/31/2018	Lov 0.0 0.0 0.3 U 0.6 0.6 0.0 0.0 0.0 0.0 0.0 0.0	v 4 0 1 2 0 1 4 2	Date 01/13/2011 04/12/2016 07/05/2017 08/11/2011 12/08/2010 08/11/2011 09/11/2013 12/31/2018 05/06/2019 12/04/2012	Average 0.04 0.01 0.34 U 0.72 U 2.43 0.01 0.04 0.07	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved	No. of Samples 15 15 15 15 15 148 15 148 15 15 15 15 15	High 0.04 0.06 0.39 U 0.91 U 4.10 0.01 0.04 0.19 0.05	Date 01/13/2011 01/13/2011 01/13/2011 05/04/2021 12/18/2013 05/04/2021 03/07/2022 12/31/2018 05/06/2019 12/31/2018 12/04/2012	Lov 0.0 0.0 0.3 U 0.6 0.6 U 2.00 0.00	v 4 0 1 2 0 1 4 2 5	Date 01/13/2011 04/12/2016 07/05/2017 08/11/2011 12/08/2010 08/11/2011 09/11/2013 12/31/2018 05/06/2019 12/04/2012 12/04/2012	Average 0.04 0.01 0.34 U 0.72 U 2.43 0.01 0.04 0.07 0.05	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium,	No. of Samples 15 15 15 15 15 148 15 148 15 15 15 15 15 15 15	High 0.04 0.06 0.39 U 0.91 U 4.10 0.01 0.04 0.19 0.05 0.13	Date 01/13/2011 01/13/2011 01/13/2011 05/04/2021 12/18/2013 05/04/2021 03/07/2022 12/31/2018 05/06/2019 12/31/2018 12/04/2012 01/13/2011	Lov 0.0 0.0 0.3 U 0.6 0.6 0.0 0.0 0.0 0.0 0.0 0.0	v 4 0 1 2 0 1 4 2 5 1	Date 01/13/2011 04/12/2016 07/05/2017 08/11/2011 12/08/2010 08/11/2011 09/11/2013 12/31/2018 05/06/2019 12/04/2012 12/04/2012 07/05/2017	Average 0.04 0.01 0.34 U 0.72 U 2.43 0.01 0.04 0.07 0.05 0.12	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium,	No. of Samples 15 15 15 15 15 148 15 148 15 15 15 15 15 15 15 15 15 15 15	High 0.04 0.06 0.39 U 0.91 U 4.10 0.01 0.04 0.19 0.05 0.13 1.90	Date 01/13/2011 01/13/2011 01/13/2011 05/04/2021 12/18/2013 05/04/2021 03/07/2022 12/31/2018 05/06/2019 12/31/2018 12/04/2012 01/13/2011 03/09/2011	Lov 0.0 0.0 0.3 0.3 0.3 0.3 0.3 0.3	v 4 0 1 2 0 1 4 2 5 1 0 0	Date 01/13/2011 04/12/2016 07/05/2017 08/11/2011 12/08/2010 08/11/2011 09/11/2013 12/31/2018 05/06/2019 12/04/2012 12/04/2012 07/05/2017 12/08/2010	Average 0.04 0.01 0.34 U 0.72 U 2.43 0.01 0.04 0.07 0.05 0.12 1.58	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese,	No. of Samples 15 15 15 15 15 148 15 148 15 15 15 15 15 15 15 15 15 15 15 15 15	High 0.04 0.06 0.39 U 0.91 U 4.10 0.01 0.04 0.19 0.05 0.13 1.90 0.01	Date 01/13/2011 01/13/2011 05/04/2021 12/18/2013 05/04/2021 03/07/2022 12/31/2018 05/06/2019 12/31/2018 12/04/2012 01/13/2011 03/09/2011 01/13/2011	Lov 0.0 0.0 0.3 U 0.3 0.3 U 0.3 0.3 0.3 0.3 0.3 0.3 0.3 0.3	v 4 0 1 2 0 1 4 2 5 1 0 1 0 1 1 0 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1	Date 01/13/2011 04/12/2016 07/05/2017 08/11/2011 12/08/2010 08/11/2011 09/11/2013 12/31/2018 05/06/2019 12/04/2012 12/04/2012 12/04/2012 07/05/2017 12/08/2010 01/13/2011	Average 0.04 0.01 0.34 U 0.72 U 2.43 0.01 0.04 0.07 0.05 0.12 1.58 0.01	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury,	No. of Samples 15 15 15 15 15 148 15 15 15 15 15 15 15 15 15 15 15 15 15	High 0.04 0.06 0.39 U 0.91 U 4.10 0.01 0.04 0.19 0.05 0.13 1.90 0.01 U	Date 01/13/2011 01/13/2011 05/04/2021 12/18/2013 05/04/2021 03/07/2022 12/31/2018 05/06/2019 12/31/2018 12/04/2012 01/13/2011 03/09/2011 01/13/2011 05/04/2021	Lov 0.0 0.0 0.3 0.3 0.3 0.3 0.3 0.3	v 4 0 1 2 0 1 4 2 5 1 0 1 0 1 1 0 1 1 0 1 1 1 1 1 1 1 1 1 1 1 1 1	Date 01/13/2011 04/12/2016 07/05/2017 08/11/2011 12/08/2010 08/11/2011 09/11/2013 12/31/2018 05/06/2019 12/04/2012 12/04/2012 12/04/2012 07/05/2017 12/08/2010 01/13/2011 08/11/2011	Average 0.04 0.01 0.34 U 0.72 U 2.43 0.01 0.04 0.07 0.05 0.12 1.58 0.01 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum,	No. of Samples 15 15 15 15 15 148 15 15 15 15 15 15 15 15 15 15 15 15 15	High 0.04 0.06 0.39 U 0.91 U 4.10 0.01 0.04 0.19 0.05 0.13 1.90 0.01	Date 01/13/2011 01/13/2011 01/13/2011 05/04/2021 12/18/2013 05/04/2021 03/07/2022 12/31/2018 05/06/2019 12/31/2018 12/04/2012 01/13/2011 03/09/2011 01/13/2011	Lov 0.0 0.0 0.3 0.3 0.3 0.3 0.3 0.3	v 4 0 1 2 0 1 4 2 5 1 0 1 0 1 6	Date 01/13/2011 04/12/2016 07/05/2017 08/11/2011 12/08/2010 08/11/2011 09/11/2013 12/31/2018 05/06/2019 12/04/2012 12/04/2012 12/04/2012 07/05/2017 12/08/2010 01/13/2011 08/11/2011	Average 0.04 0.01 0.34 U 0.72 U 2.43 0.01 0.04 0.07 0.05 0.12 1.58 0.01	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel,	No. of Samples 15 15 15 15 15 148 15 148 15 15 15 15 15 15 15 15 15 15 15 15 15	High 0.04 0.06 0.39 U 0.91 U 4.10 0.01 0.04 0.19 0.05 0.13 1.90 0.01 U 0.01 U 0.06 U U	Date 01/13/2011 01/13/2011 01/13/2011 05/04/2021 12/18/2013 05/04/2021 03/07/2022 12/31/2018 05/06/2019 12/31/2018 12/04/2012 01/13/2011 03/09/2011 01/13/2011 05/04/2021	Lov 0.0 0.0 0.3 0.3 0.3 0.3 0.3 0.3	v 4 0 1 2 0 1 4 2 5 1 0 1 6	Date 01/13/2011 04/12/2016 07/05/2017 08/11/2011 12/08/2010 08/11/2011 09/11/2013 12/31/2018 05/06/2019 12/04/2012 12/04/2012 12/04/2012 07/05/2017 12/08/2010 01/13/2011 08/11/2011 08/11/2011	Average 0.04 0.01 0.34 U 0.72 U 2.43 0.01 0.04 0.07 0.05 0.12 1.58 0.01 U 0.06 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium,	No. of Samples 15 15 15 15 15 148 15 148 15 15 15 15 15 15 15 148 15 15 15 15 15 148 15 15 148 15 15 148	High 0.04 0.06 0.39 U 0.91 U 4.10 0.01 0.01 0.04 0.19 0.05 0.13 1.90 0.01 U 0.01 U 0.06 U U 0.01 0.05 0.13 1.90 0.01 0.01 0.05 0.13 1.90 0.01 0.01 0.05 0.13 1.90 0.01 0.05 0.13 1.90 0.01 0.05 0.13 1.90 0.01 0.01 0.05 0.13 1.90 0.01 0.05 0.13 1.90 0.01 0.01 0.05 0.13 1.90 0.01 0.01 0.05 0.13 1.90 0.01 0.01 0.01 0.01 0.05 0.13 1.90 0.01 0.01 0.01 0.01 0.01 0.05 0.13 0.01 0.01 0.01 0.01 0.05 0.13 0.01 0.01 0.01 0.01 0.05 0.13 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.05 0.13 0.01	Date 01/13/2011 01/13/2011 01/13/2011 05/04/2021 12/18/2013 05/04/2021 03/07/2022 12/31/2018 05/06/2019 12/31/2018 12/04/2012 01/13/2011 03/09/2011 01/13/2011 05/04/2021 01/13/2011 05/04/2021 12/08/2010	Lov 0.0 0.0 0.3 0.3 0.3 0.3 0.0 0.0	v 4 0 1 2 0 1 4 2 5 1 0 1 6 0 0	Date 01/13/2011 04/12/2016 07/05/2017 08/11/2011 12/08/2010 08/11/2011 09/11/2013 12/31/2018 05/06/2019 12/04/2012 12/04/2012 12/04/2012 07/05/2017 12/08/2010 01/13/2011 08/11/2011 08/11/2011 11/02/2016	Average 0.04 0.01 0.34 U 0.72 U 2.43 0.01 0.04 0.07 0.05 0.12 1.58 0.01 U 0.06 U 0.95	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium,	No. of Samples 15 15 15 15 15 148 15 148 15 15 15 15 15 15 15 15 15 15 15 15 15	High 0.04 0.06 0.39 U 0.91 U 4.10 0.01 0.04 0.19 0.05 0.13 1.90 0.01 U 0.01 U 0.06 U U 0.06 U 0.13 1.90 0.01 U 0.01 U 0.05 0.13 1.90 0.01 U 0.01 U 0.05 0.13 1.90 0.01 U 0.05 0.13 1.90 0.01 U 0.01 0.05 0.13 1.90 0.01 0.01 0.05 0.13 1.90 0.01 0.01 0.05 0.13 1.90 0.01 0.01 0.05 0.13 1.90 0.01 0.01 0.01 0.05 0.13 1.90 0.01 0.01 0.01 0.01 0.05 0.13 0.01 0.01 0.01 0.01 0.05 0.13 0.01 0.01 0.01 0.01 0.05 0.13 0.01 0.0	Date 01/13/2011 01/13/2011 01/13/2011 05/04/2021 12/18/2013 05/04/2021 03/07/2022 12/31/2018 05/06/2019 12/31/2018 12/04/2012 01/13/2011 03/09/2011 01/13/2011 05/04/2021 12/08/2010 05/04/2021	Lov 0.0 0.0 0.3 0.3 0.3 0.0 0.0 0.0	v 4 0 1 2 0 1 4 2 5 1 0 1 6 0 0	Date 01/13/2011 04/12/2016 07/05/2017 08/11/2011 12/08/2010 08/11/2013 12/31/2018 05/06/2019 12/04/2012 12/04/2012 12/04/2012 07/05/2017 12/08/2010 01/13/2011 08/11/2011 08/11/2011 11/02/2016 08/11/2011	Average 0.04 0.01 0.34 U 0.72 U 2.43 0.01 0.04 0.07 0.05 0.12 1.58 0.01 U 0.06 U 0.95 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Boron, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica,	No. of Samples 15 15 15 15 15 148 15 148 15 15 15 15 15 15 15 16 15 15 15 16 15 15 15 148 15 15 15 148 15 15 148 15 148	High 0.04 0.06 0.39 U 0.91 U 4.10 0.01 0.04 0.19 0.05 0.13 1.90 0.01 U 0.06 U 2.10 U 17.80	Date 01/13/2011 01/13/2011 01/13/2011 05/04/2021 12/18/2013 05/04/2021 03/07/2022 12/31/2018 05/06/2019 12/31/2018 12/04/2012 01/13/2011 05/04/2021 01/13/2011 05/04/2021 01/13/2010 05/04/2021 05/04/2021 08/03/2021	Lov 0.0 0.0 0.3 0.3 0.3 0.0 0.0 0.0	v 4 0 1 2 0 1 2 0 1 4 2 5 1 0 1 6 0 0 0 0 0	Date 01/13/2011 04/12/2016 07/05/2017 08/11/2011 12/08/2010 08/11/2013 12/31/2018 05/06/2019 12/04/2012 12/04/2012 12/04/2012 07/05/2017 12/08/2010 01/13/2011 08/11/2011 11/02/2016 08/11/2011 12/08/2010	Average 0.04 0.01 0.34 U 0.72 U 2.43 0.01 0.04 0.07 0.05 0.12 1.58 0.01 U 0.06 U 0.95 U 15.54	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Boron, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Solved Marganese, Mercury, Molybdenum, Selenium, Selenium, Silica, Sodium,	No. of Samples 15 15 15 15 15 148 15 148 15 15 15 15 15 15 15 16 15 15 16 15 15 15 148 15 15 15 148 15 15 148 15 148 15 148 15 148 15 148 15 148 15 148 15 15 148 15 15 15 15 15 15 15 15 15 15 15 15 15	High 0.04 0.06 0.39 U 0.91 U 4.10 0.01 0.01 0.04 0.19 0.05 0.13 1.90 0.01 U 0.06 U 2.10 U 17.80 439.00	Date 01/13/2011 01/13/2011 01/13/2011 05/04/2021 12/18/2013 05/04/2021 03/07/2022 12/31/2018 05/06/2019 12/31/2018 12/04/2012 01/13/2011 05/04/2021 01/13/2011 05/04/2021 01/13/2010 05/04/2021 12/08/2010 05/04/2021 08/03/2021 12/18/2013	Lov 0.0 0.0 0.3 0.3 0.3 0.3 0.3 0.3	v 4 0 1 2 0 1 2 0 1 4 2 5 1 0 1 6 0 0 0 0 0 0 0 0 0 0 0 0 0	Date 01/13/2011 04/12/2016 07/05/2017 08/11/2011 12/08/2010 08/11/2013 12/31/2018 05/06/2019 12/04/2012 12/04/2012 12/04/2012 07/05/2017 12/08/2010 01/13/2011 08/11/2011 11/02/2016 08/11/2011 12/08/2010 04/11/2011	Average 0.04 0.01 0.34 U 0.72 U 2.43 0.01 0.04 0.07 0.05 0.12 1.58 0.01 U 0.06 U 0.95 U 15.54 357.13	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Boron, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica,	No. of Samples 15 15 15 15 15 148 15 148 15 15 15 15 15 15 15 16 15 15 15 16 15 15 15 148 15 15 15 148 15 15 148 15 148	High 0.04 0.06 0.39 U 0.91 U 4.10 0.01 0.04 0.19 0.05 0.13 1.90 0.01 U 0.06 U 2.10 U 17.80	Date 01/13/2011 01/13/2011 01/13/2011 05/04/2021 12/18/2013 05/04/2021 03/07/2022 12/31/2018 05/06/2019 12/31/2018 12/04/2012 01/13/2011 05/04/2021 01/13/2011 05/04/2021 01/13/2010 05/04/2021 05/04/2021 08/03/2021	Lov 0.0 0.0 0.3 0.3 0.3 0.3 0.3 0.3	v 4 0 1 2 0 1 4 2 5 1 0 1 6 0 0 0 0 8	Date 01/13/2011 04/12/2016 07/05/2017 08/11/2011 12/08/2010 08/11/2013 12/31/2018 05/06/2019 12/04/2012 12/04/2012 12/04/2012 07/05/2017 12/08/2010 01/13/2011 08/11/2011 11/02/2016 08/11/2011 12/08/2010	Average 0.04 0.01 0.34 U 0.72 U 2.43 0.01 0.04 0.07 0.05 0.12 1.58 0.01 U 0.06 U 0.95 U 15.54	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Table 28: BG-6 Monthly B-Groove Aquifer

DAUB & ASSOCIATES, INC.



2022 Project Status Report & Annual Plan of Development

DAUB & ASSOCIATES, INC.



Parameters	No. of							
Wet Chemistry	No. of	F	ligh	Date	Low	Date	Average	Units
Bicarbonate as	Samples 9		912	06/02/2020	501	12/15/2015	708	mg/l
Carbonate as	9		307	12/15/2015	80	06/02/2020	180	mg/l
Total Alkalinity as	9		992	06/02/2020	808	12/15/2015	888	mg/l
Bromide	9		).14	10/18/2014	0.13	09/28/2017	0.13	mg/l
Cation-Anion	9		2.40	06/25/2019	-4.80	06/02/2020	-1.02	%
Sum of Anions	9		4.00	10/18/2014	20.00	06/25/2019	22.11	meq/l
Sum of Cations	9		4.00	10/18/2014	19.00	06/03/2022	21.67	meg/l
Chemical	9		4.00 0.00	06/25/2019	10.00	06/02/2020	21.07	mg/l
Chloride	9		201	12/15/2015	10.00	06/03/2022	109	mg/l
Conductivity,	9		,340	10/18/2014	1,770	06/02/2020	2,033	µmhos
Fluoride	9		<u>,540</u> 3.70	06/09/2021	18.20	12/15/2015	2,033	mg/l
Hardness as	9		3.00	10/18/2014	11.00	04/05/2016	11.99	mg/l
Nitrate as N,	9		0.02	10/18/2014	0.02	10/18/2014	0.02	mg/l
Nitrate/Nitrite	9		).02	10/18/2014	0.02	10/18/2014	0.02	mg/l
Nitrite as N,	9		).02 ).01	12/15/2015	UH	10/18/2014	UH	mg/l
Nitrogen,	9		.22	10/18/2014	0.81	06/20/2018	1.03	mg/l
Nitrogen,	9		.20	06/20/2018	0.20	10/18/2014	0.63	mg/l
Nitrogen, Total	9		2.00	09/28/2017	0.20	06/03/2022	1.47	mg/l
pH, lab	9		9.60	12/15/2015	8.30	06/09/2022	9.07	units
	9		).40	12/15/2015	0.06	06/09/2021	0.15	
Phosphate,								mg/l
Phosphorus,	9 9		).13 66	12/15/2015	0.02	06/09/2021	0.05	mg/l
SAR in Water	9		66	04/05/2016	53.00	06/09/2021	60	none
Sulfate	9		40	10/18/2014	5.58	06/20/2018	16	mg/l
Sulfide	9		).15 250	06/25/2019	0.02	06/02/2020	0.09	mg/l
Total Dissolved			,350	10/18/2014	1,050	06/03/2022	1,181	mg/l
Conductivity,	10		,575	12/15/2015	1,594	10/25/2018	1,999	<u>µmhos</u>
pH, Field	10 Temperature	10	9.40	06/20/2018	8.00	06/02/2020	8.68	units
				10/10/0011			1100	(00)
Water Loval			22.50	10/18/2014	11.49	10/25/2018	14.90	(°C)
Water Level,	10	480.10	22.50 09/28/2017			10/25/2018 10/25/2018	14.90 476.28	<u>(°C)</u> Ft.
	10	480.10						Ft.
Parameters	10 <b>No. of</b>				30			
Parameters Metals	10 No. of Samples	480.10 High	09/28/2017 Date	2 470.3 Low	30 V	10/25/2018 Date	476.28 Average	Ft. Units
Parameters Metals Aluminum,	10 No. of Samples 9	480.10 High 0.08	09/28/2017 Date	7 470.3 Low	30 V 4	10/25/2018 Date 04/05/2016	476.28 Average	Ft. Units mg/l
Parameters Metals Aluminum, Arsenic,	10 No. of Samples 9 9	480.10 High 0.08 0.03	09/28/2017 Date 10/18/2014 10/18/2014	7 470.3 Low 4 0.04 4 0.00	30 / 1 )	10/25/2018 Date 04/05/2016 09/28/2017	476.28 Average 0.07 0.01	Ft. Units mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium,	10 No. of Samples 9 9 9 9	480.10 High 0.08 0.03 0.40	09/28/2017 Date 10/18/2014 10/18/2014 06/09/2022	7 470.3 Low 4 0.04 4 0.00 1 0.02	30 / 1 )	10/25/2018 Date 04/05/2016 09/28/2017 12/15/2015	476.28 Average 0.07 0.01 0.20	Ft. Units mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium,	10 No. of Samples 9 9 9 9 9 9 9	480.10 High 0.08 0.03 0.40 U	09/28/2017 Date 10/18/2014 10/18/2014 06/09/2024 10/18/2014	7 470.3 Low 4 0.04 4 0.00 1 0.02 4 U	30 7 4 2	10/25/2018           Date           04/05/2016           09/28/2017           12/15/2015           06/09/2021	476.28 Average 0.07 0.01 0.20 U	Ft. Units mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron,	10 <b>No. of</b> <b>Samples</b> 9 9 9 9 9 9 9 9 9	480.10 High 0.08 0.03 0.40 U 0.83	09/28/2017 Date 10/18/2014 10/18/2014 06/09/2022 10/18/2014 06/09/2022	z         470.3           Low         1         0.02           4         0.02         1         0.02           4         0.02         1         0.02         1         0.02         1         0.02         1         0.02         1         0.056         1         0.566         1         1         0.566         1         1         0.566         1         1         1         0.566         1 <th1< th=""> <th1< th="">         1         <th< td=""><td>30 7 4 2</td><td>10/25/2018 Date 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015</td><td>476.28 Average 0.07 0.01 0.20 U 0.70</td><td>Ft. Units mg/l mg/l mg/l mg/l</td></th<></th1<></th1<>	30 7 4 2	10/25/2018 Date 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015	476.28 Average 0.07 0.01 0.20 U 0.70	Ft. Units mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium,	10 <b>No. of</b> <b>Samples</b> 9 9 9 9 9 9 9 9 9 9 9 9	480.10 High 0.08 0.03 0.40 U 0.83 U	09/28/2017 Date 10/18/2014 10/18/2014 06/09/2022 10/18/2014 06/09/2022 10/18/2014	Z         470.3           Low         1         0.02           4         0.02         0.02           4         0.02         0.02           4         U         0.56           4         U         U	30 4 2 5	10/25/2018 <b>Date</b> 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015 06/09/2021	476.28 Average 0.07 0.01 0.20 U 0.70 U	Ft. Units mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium,	10 <b>No. of</b> <b>Samples</b> 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	480.10 High 0.08 0.03 0.40 U 0.83 U 3.60	09/28/2017 Date 10/18/2014 10/18/2014 06/09/2022 10/18/2014 06/09/2022 10/18/2014 10/18/2014	Z         470.3           Low         1           4         0.02           4         0.02           4         0.02           4         0.02           4         0.56           4         U           1         0.56           4         U           4         1.40	30 4 2 5	10/25/2018 <b>Date</b> 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/20/2018	476.28 <b>Average</b> 0.07 0.01 0.20 U 0.70 U 2.23	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium,	10 <b>No. of</b> <b>Samples</b> 9 9 9 9 9 9 9 9 9 9 9 9 9	480.10 High 0.08 0.03 0.40 U 0.83 U 3.60 U	09/28/2017 Date 10/18/2014 10/18/2014 06/09/2022 10/18/2014 06/09/2022 10/18/2014 10/18/2014 10/18/2014	Z         470.3           Low         0.02           I         0.02           I         0.02           I         0.56           I         0.56           I         0.40	30 4 2 5	10/25/2018 <b>Date</b> 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/20/2018 06/09/2021	476.28 <b>Average</b> 0.07 0.01 0.20 U 0.70 U 2.23 U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper,	10 <b>No. of</b> <b>Samples</b> 9 9 9 9 9 9 9 9 9 9 9 9 9	480.10 High 0.08 0.03 0.40 U 0.83 U 3.60 U U U	09/28/2017 Date 10/18/2014 10/18/2014 06/09/2027 10/18/2014 06/09/2027 10/18/2014 10/18/2014 10/18/2014	Z         470.3           Low         0.04           4         0.04           4         0.02           4         0.02           4         0.56           4         0.56           4         0.40           4         0.40           4         0.40           4         0.40           4         0.40           4         0.40           4         0.40           4         0.40           4         0.40           4         0.40           4         0.40	30 4 2 3 3	10/25/2018 <b>Date</b> 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/20/2018 06/09/2021 06/09/2021	476.28 Average 0.07 0.01 0.20 U 0.70 U 2.23 U U U U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved	10 <b>No. of</b> <b>Samples</b> 9 9 9 9 9 9 9 9 9 9 9 9 9	480.10 High 0.08 0.03 0.40 U 0.83 U 0.83 U 3.60 U U 0.36	09/28/2017 Date 10/18/2014 10/18/2014 06/09/2022 10/18/2014 06/09/2022 10/18/2014 10/18/2014 10/18/2014 10/18/2014 09/28/2017	Z         470.3           Low         0.04           4         0.02           4         0.02           4         U           4         0.56           4         U           4         1.40           4         U           4         U           4         U           4         U           4         U           4         U           4         U           4         U           4         U           4         U           7         0.06	30 4 2 3 3	10/25/2018 <b>Date</b> 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/09/2021 06/09/2021 12/15/2015	476.28 Average 0.07 0.01 0.20 U 0.70 U 2.23 U U 0.17	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved	10 <b>No. of</b> <b>Samples</b> 9 9 9 9 9 9 9 9 9 9 9 9 9	480.10 High 0.08 0.03 0.40 U 0.83 U 3.60 U 3.60 U U 0.36 U	09/28/2017 Date 10/18/2014 10/18/2014 06/09/2021 10/18/2014 06/09/2021 10/18/2014 10/18/2014 10/18/2014 10/18/2014 09/28/2017 10/18/2014	Z         470.3           Low         Low           4         0.04           4         0.02           4         0.02           4         U           4         0.56           4         U           4         U           4         U           4         U           4         U           4         U           4         U           4         U           4         U           4         U           4         U           4         U           4         U           4         U           4         U           7         0.06           4         U	30 4 2 3 3 3 3 4 3 3 3 3 3 3 3 3 4 3 3 3 3 3 3 3 3 3 3 3 3 3	10/25/2018 <b>Date</b> 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/09/2021 12/15/2015 06/09/2021	476.28 Average 0.07 0.01 0.20 U 0.70 U 2.23 U U 0.17 U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium,	10 <b>No. of</b> <b>Samples</b> 9 9 9 9 9 9 9 9 9 9 9 9 9	480.10 High 0.08 0.03 0.40 U 0.83 U 3.60 U 0.36 U 0.36 U 0.36 U 0.36	09/28/2017 Date 10/18/2014 10/18/2014 06/09/2027 10/18/2014 06/09/2027 10/18/2014 10/18/2014 10/18/2014 09/28/2017 10/18/2014 09/28/2017 10/18/2014 04/05/2016	Z         470.3           Low         0.02           I         0.02           I         0.02           I         0.02           I         0.56           I         0.56           I         0.40           I         0.56           I         0.14           I         0.06           I         0.06           I         0.06           I         0.05           I         0.05	30 4 2 3 3 3 3 4 3 3 3 3 3 4 3 3 3 4 3 3 3 4 3 3 3 3 3 3 3 3 3 3 3 3 3	10/25/2018 <b>Date</b> 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/09/2021 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/09/2021	476.28 <b>Average</b> 0.07 0.01 0.20 U 0.70 U 2.23 U U 0.17 U 0.13	Ft. Units mg/I mg/I mg/I mg/I mg/I mg/I mg/I mg/I
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium,	10 <b>No. of</b> <b>Samples</b> 9 9 9 9 9 9 9 9 9 9 9 9 9	480.10 High 0.08 0.03 0.40 U 0.83 U 3.60 U 0.36 U 0.36 U 0.36 U 0.36 U 0.36 U 0.36 U 0.36 U 0.36 U 0.36 U 0.37 0.40 0.03 0.03	09/28/2017 Date 10/18/2014 10/18/2014 06/09/2022 10/18/2014 06/09/2022 10/18/2014 10/18/2014 10/18/2014 09/28/2017 10/18/2014 04/05/2016 09/28/2017	Z         470.3           Low         1         0.02           4         0.02         1         0.02           4         0.02         1         0.02         1         0.02         1         0.02         1         0.02         1         1         0         1         0.02         1         1         0         1         1         0         1 <th1< th=""> <th1< th="">         1         &lt;</th1<></th1<>	30 4 5 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7	10/25/2018 <b>Date</b> 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/09/2021 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/09/2021 06/09/2021 06/09/2021 06/09/2021 06/09/2021	476.28 <b>Average</b> 0.07 0.01 0.20 U 0.70 U 2.23 U U 0.17 U 0.13 1.61	Ft. Units mg/I mg/I mg/I mg/I mg/I mg/I mg/I mg/I
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese,	10 <b>No. of</b> <b>Samples</b> 9 9 9 9 9 9 9 9 9 9 9 9 9	480.10 High 0.08 0.03 0.40 U 0.83 U 0.83 U 3.60 U U 0.36 U 0.36 U 0.36 U 0.17 1.90 0.02	09/28/2017 Date 10/18/2014 10/18/2014 06/09/2022 10/18/2014 06/09/2022 10/18/2014 10/18/2014 10/18/2014 09/28/2017 10/18/2014 09/28/2017 09/28/2017 09/28/2017	Z         470.3           Low         1           4         0.02           4         0.02           4         0.02           4         0.02           4         0.02           4         0.02           4         0.56           4         0           4         0           4         0           4         0           4         0           4         0           5         0.09           7         1.00           7         0.01	30 4 5 6 6 7 7 7 7 7 7 7 7 7 7 7 7 7	10/25/2018 Date 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/09/2021 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/09/2021 06/02/2020 10/18/2014 10/18/2014	476.28 Average 0.07 0.01 0.20 U 0.70 U 2.23 U U 0.17 U 0.13 1.61 0.01	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury,	10 <b>No. of</b> <b>Samples</b> 9 9 9 9 9 9 9 9 9 9 9 9 9	480.10 High 0.08 0.03 0.40 U 0.83 U 0.83 U 3.60 U U 0.36 U 0.36 U 0.36 U 0.17 1.90 0.02 U	09/28/2017 Date 10/18/2014 10/18/2014 06/09/2027 10/18/2014 06/09/2027 10/18/2014 10/18/2014 10/18/2014 09/28/2017 10/18/2014 09/28/2017 09/28/2017 10/18/2014	Z         470.3           Low         1           4         0.02           4         0.02           4         0.02           4         0.02           4         0.02           4         0.02           4         0.56           4         0           4         0           4         0           4         0           4         0           4         0           5         0.06           7         1.00           7         0.01           4         0	30 4 5 6 7 7 7 7 7 7 7 7 7 7 7 7 7	10/25/2018 Date 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/09/2021 12/15/2015 06/09/2021 06/09/2021 06/02/2020 10/18/2014 10/18/2014 06/09/2021	476.28 Average 0.07 0.01 0.20 U 0.70 U 2.23 U U 0.17 U 0.13 1.61 0.01 U	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum,	10 <b>No. of</b> <b>Samples</b> 9 9 9 9 9 9 9 9 9 9 9 9 9	480.10 High 0.08 0.03 0.40 U 0.83 U 0.83 U 3.60 U U 0.36 U 0.36 U 0.17 1.90 0.02 U 0.14	09/28/2017 Date 10/18/2014 10/18/2014 06/09/2027 10/18/2014 06/09/2027 10/18/2014 10/18/2014 10/18/2014 09/28/2017 10/18/2014 09/28/2017 09/28/2017 10/18/2014 10/18/2014	Z         470.3           Low           4         0.02           4         0.02           4         0.02           4         0.02           4         0.02           4         0.02           4         0.02           4         0.02           4         U           4         0.56           4         U           4         U           4         U           5         0.06           7         1.00           7         0.01           4         U           4         0.05	30 4 5 6 7 7 7 7 7 7 7 7 7 7 7 7 7	10/25/2018 Date 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/09/2021 06/09/2021 06/09/2021 06/02/2020 10/18/2014 10/18/2014 06/09/2021 06/20/2018	476.28 Average 0.07 0.01 0.20 U 0.70 U 2.23 U U 0.17 U 0.13 1.61 0.01 U 0.09	Ft. Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel,	10 <b>No. of</b> <b>Samples</b> 9 9 9 9 9 9 9 9 9 9 9 9 9	480.10 High 0.08 0.03 0.40 U 0.83 U 0.83 U 0.83 U 0.83 U 0.360 U 0.36 U 0.36 U 0.17 1.90 0.02 U 0.14 U	09/28/2017 Date 10/18/2014 10/18/2014 06/09/2027 10/18/2014 06/09/2027 10/18/2014 10/18/2014 10/18/2014 09/28/2017 10/18/2014 09/28/2017 10/18/2014 10/18/2014 10/18/2014	Z         470.3           Low           4         0.02           4         0.02           4         0.02           4         0.02           4         0.56           4         0.56           4         0           4         0.56           4         0           4         0           5         0.06           7         0.06           4         0           5         0.05           7         0.01           4         0           4         0.05           4         0.05           4         0	30       30       4       0       2       30       30       30       4       0       2       30 <t< td=""><td>10/25/2018 Date 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/20/2018 06/09/2021 06/09/2021 06/09/2021 06/09/2021 06/20/2018 06/09/2021</td><td>476.28 Average 0.07 0.01 0.20 U 0.70 U 2.23 U 0.17 U 0.13 1.61 0.01 U 0.09 U</td><td>Ft. Units mq/I mg/I</td></t<>	10/25/2018 Date 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/20/2018 06/09/2021 06/09/2021 06/09/2021 06/09/2021 06/20/2018 06/09/2021	476.28 Average 0.07 0.01 0.20 U 0.70 U 2.23 U 0.17 U 0.13 1.61 0.01 U 0.09 U	Ft. Units mq/I mg/I
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium,	10 <b>No. of</b> <b>Samples</b> 9 9 9 9 9 9 9 9 9 9 9 9 9	480.10 High 0.08 0.03 0.40 U 0.83 U 0.83 U 0.83 U 0.360 U 0.360 U 0.17 1.90 0.02 U 0.14 U 14.50	09/28/2017 Date 10/18/2014 10/18/2014 06/09/2027 10/18/2014 06/09/2027 10/18/2014 10/18/2014 10/18/2014 09/28/2017 09/28/2017 09/28/2017 09/28/2017 09/28/2017 10/18/2014 10/18/2014 10/18/2014 10/18/2014	Z         470.3           Low           4         0.02           4         0.02           4         0.02           4         0.02           4         0.56           4         0.56           4         0           4         0.56           4         0           4         0           4         0           5         0.06           7         0.01           4         0           4         0           4         0           5         0.05           4         0.90           4         0.90	30       30       4       0       2       30       30       30       4       0       2       30 <t< td=""><td>10/25/2018 <b>Date</b> 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/20/2018 06/09/2021 06/09/2021 06/02/2020 10/18/2014 10/18/2014 10/18/2014 06/09/2021 06/20/2018 06/09/2021 06/20/2018</td><td>476.28 Average 0.07 0.01 0.20 U 0.70 U 2.23 U U 0.17 U 0.13 1.61 0.01 U 0.09 U 6.95</td><td>Ft. Units mq/I mg/I</td></t<>	10/25/2018 <b>Date</b> 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/20/2018 06/09/2021 06/09/2021 06/02/2020 10/18/2014 10/18/2014 10/18/2014 06/09/2021 06/20/2018 06/09/2021 06/20/2018	476.28 Average 0.07 0.01 0.20 U 0.70 U 2.23 U U 0.17 U 0.13 1.61 0.01 U 0.09 U 6.95	Ft. Units mq/I mg/I
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium,	10 <b>No. of</b> <b>Samples</b> 9 9 9 9 9 9 9 9 9 9 9 9 9	480.10 High 0.08 0.03 0.40 U 0.83 U 0.83 U 0.83 U 0.36 U 0.36 U 0.36 U 0.17 1.90 0.02 U 0.14 U 14.50 0.00	09/28/2017 Date 10/18/2014 10/18/2014 06/09/2027 10/18/2014 06/09/2027 10/18/2014 10/18/2014 10/18/2014 09/28/2017 09/28/2017 09/28/2017 09/28/2017 09/28/2017 10/18/2014 10/18/2014 10/18/2014 10/18/2014	Z         470.3           Low           4         0.02           4         0.02           4         0.02           4         0.02           4         0.56           4         0.56           4         0.56           4         0.06           4         0.06           4         0.06           7         0.06           7         0.07           4         0           5         0.05           4         0.05           4         0.90           4         0.90           4         0.90	30 4 5 6 7 7 7 7 7 7 7 7 7 7 7 7 7	10/25/2018 Date 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/20/2018 06/09/2021 06/09/2021 06/09/2021 06/09/2021 06/20/2018 06/09/2021 06/20/2018 06/09/2021 06/25/2019 06/09/2021	476.28 Average 0.07 0.01 0.20 U 0.70 U 2.23 U 0.17 U 0.13 1.61 0.01 U 0.09 U 6.95 U	Ft. Units mq/I mg/I
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica,	10 <b>No. of</b> <b>Samples</b> 9 9 9 9 9 9 9 9 9 9 9 9 9	480.10 High 0.08 0.03 0.40 U 0.83 U 0.83 U 0.83 U 0.360 U 0.360 U 0.17 1.90 0.02 U 0.14 U 0.14 U 14.50 0.00 18.90	09/28/2017 Date 10/18/2014 10/18/2014 06/09/2027 10/18/2014 06/09/2027 10/18/2014 10/18/2014 10/18/2014 09/28/2017 09/28/2017 09/28/2017 09/28/2017 09/28/2017 10/18/2014 10/18/2014 10/18/2014 10/18/2014 10/18/2014	Z         470.3           Low           4         0.04           4         0.02           4         0.02           4         0.56           4         0.56           4         0.56           4         0.4           4         0.56           4         0.06           4         0.06           4         0.06           7         0.06           4         0           5         0.09           4         0.90           4         0.90           4         0.90           4         0.90	30 4 5 6 7 7 7 7 7 7 7 7 7 7 7 7 7	10/25/2018 Date 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/20/2018 06/09/2021 06/09/2021 06/09/2021 06/09/2021 06/20/2018 06/09/2021 06/25/2019 06/09/2021 12/15/2015	476.28 Average 0.07 0.01 0.20 U 0.70 U 2.23 U U 0.17 U 0.13 1.61 0.01 U 0.09 U 6.95 U 8.70	Ft. Units mq/I mg/I
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica, Sodium,	10 <b>No. of</b> <b>Samples</b> 9 9 9 9 9 9 9 9 9 9 9 9 9	480.10 High 0.08 0.03 0.40 U 0.83 U 0.83 U 0.83 U 0.360 U 0.360 U 0.360 U 0.17 1.90 0.02 U 0.14 U 0.14 U 0.14 0.02 0.17 1.90 0.02 0.14 0.02 0.17 1.90 0.02 0.14 0.03 0.15 0.05 0.5 0.	09/28/2017 Date 10/18/2014 10/18/2014 06/09/2027 10/18/2014 06/09/2027 10/18/2014 10/18/2014 10/18/2014 09/28/2017 09/28/2017 10/18/2014 09/28/2017 10/18/2014 10/18/2014 10/18/2014 10/18/2014 10/18/2014 10/18/2014 10/18/2014 10/18/2014	Z         470.3           Low           4         0.04           4         0.02           4         0.02           4         0.02           4         0.56           4         0.56           4         0.4           4         0.56           4         0.06           4         0.06           4         0.06           7         0.06           4         0           5         0.09           4         0.90           4         0.90           4         0.90           4         0.90           4         0.90           4         0.90	30 4 1 2 5 0 1 5 0 1 5 0 1 5 0 0 1 5 0 0 1 5 0 0 0 0 0 0 0 0 0 0 0 0 0	10/25/2018 Date 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/20/2018 06/09/2021 06/09/2021 06/09/2021 06/09/2021 06/20/2018 06/09/2021 06/20/2018 06/09/2021 06/25/2019 06/09/2021 12/15/2015 06/03/2022	476.28 Average 0.07 0.01 0.20 U 0.70 U 2.23 U 0.17 U 0.17 U 0.13 1.61 0.01 U 0.09 U 6.95 U 8.70 478	Ft. Units mq/I mg/I
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica, Sodium,	10 <b>No. of</b> <b>Samples</b> 9 9 9 9 9 9 9 9 9 9 9 9 9	480.10 High 0.08 0.03 0.40 U 0.83 U 3.60 U 0.36 U 0.17 1.90 0.02 U 0.14 U 0.14 U 14.50 0.00 18.90 536 0.66	09/28/2017 Date 10/18/2014 10/18/2014 06/09/2027 10/18/2014 06/09/2027 10/18/2014 10/18/2014 10/18/2014 09/28/2017 10/18/2014 09/28/2017 09/28/2017 09/28/2017 10/18/2014	Z         470.3           Low           4         0.04           4         0.02           4         0.02           4         0.02           4         0.56           4         0.56           4         0           4         0.56           4         0           4         0           4         0           4         0           4         0           5         0.06           4         0           5         0.06           4         0           4         0           5         0.06           4         0           5         0.06           4         0           4         0.90           4         0.90           4         0.90           4         0.90           4         0.90	30       30       4       0       2       5       0       5       0       5       0       5       0       5       0       5       0       5       0       5       5       5       5       5       5       5       5       5       5       5	10/25/2018 <b>Date</b> 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/20/2018 06/09/2021 06/09/2021 06/09/2021 06/09/2021 06/09/2021 06/20/2018 06/09/2021 06/25/2019 06/09/2021 12/15/2015 06/03/2022 12/15/2015	476.28 Average 0.07 0.01 0.20 U 0.70 U 2.23 U 0.17 U 0.17 U 0.13 1.61 0.01 U 0.09 U 6.95 U 8.70 478 0.41	Ft.         Units         mg/l         mg/l <t< td=""></t<>
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica, Sodium,	10 <b>No. of</b> <b>Samples</b> 9 9 9 9 9 9 9 9 9 9 9 9 9	480.10 High 0.08 0.03 0.40 U 0.83 U 0.83 U 0.83 U 0.360 U 0.360 U 0.360 U 0.17 1.90 0.02 U 0.14 U 0.14 U 0.14 0.03 0.03 0.40 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.03 0.02 0.02 0.17 1.90 0.02 0.14 0.03 0.02 0.03 0.03 0.02 0.03 0.02 0.03 0.00 0.14 0.03 0.00 0.02 0.03 0.00 0.03 0.00 0.03 0.00 0.03 0.00 0.03 0.00 0.00 0.03 0.00 0.03 0.00 0.00 0.03 0.00 0	09/28/2017 Date 10/18/2014 10/18/2014 06/09/2027 10/18/2014 06/09/2027 10/18/2014 10/18/2014 10/18/2014 09/28/2017 09/28/2017 10/18/2014 09/28/2017 10/18/2014 10/18/2014 10/18/2014 10/18/2014 10/18/2014 10/18/2014 10/18/2014 10/18/2014	z         470.3           Low           4         0.04           4         0.02           4         0.02           4         0.02           4         0.02           4         0.02           4         0.02           4         0.02           4         0.02           4         0.02           4         0.02           4         0.06           4         0.06           4         0.01           5         0.02           4         0.90           4         0.90           4         0.90           4         0.90           4         0.90           4         0.90           4         0.90           4         0.90           4         0.90	30       30       4       0       2       5       0       5       0       1       5       0       1       5       1       5       1       5       1       5       1       5       1	10/25/2018 Date 04/05/2016 09/28/2017 12/15/2015 06/09/2021 12/15/2015 06/09/2021 06/20/2018 06/09/2021 06/09/2021 06/09/2021 06/09/2021 06/20/2018 06/09/2021 06/20/2018 06/09/2021 06/25/2019 06/09/2021 12/15/2015 06/03/2022	476.28 Average 0.07 0.01 0.20 U 0.70 U 2.23 U 0.17 U 0.17 U 0.13 1.61 0.01 U 0.09 U 6.95 U 8.70 478	Ft.         Units         mg/l         mg/l <t< td=""></t<>

#### Table 29: BG-7 Annual B-Groove Aquifer

DAUB & ASSOCIATES, INC. 201 3 Frank Contraction Contraction



Parameters	No. of	1						
Wet Chemistry	Samples	F	ligh	Date	Low	Date	Average	Units
Bicarbonate as	8		599	08/04/2021	446	09/03/2021	516	mg/l
Carbonate as	8		323	09/03/2021	192	09/10/2021	238	mg/l
Total Alkalinity as	8		302	08/04/2021	709	06/03/2022	754	mg/l
Bromide	3		U	08/04/2021	<u>103</u>	09/10/2021	U 104	mg/l
Cation-Anion	8	0	).00	09/08/2022	-5.90	11/12/2021	-2.61	%
Sum of Anions	8		8.00	08/04/2021	16.00	06/03/2022	17.00	meq/l
Sum of Cations	8		7.00	08/04/2021	15.00	06/03/2022	16.13	meq/l
Chemical	3		7.00	08/04/2021	16.00	09/10/2021	98.67	mg/l
Chloride	8		42	09/03/2021	25	11/08/2022	31	mg/l
Conductivity,	8		,610	09/03/2021	1,470	06/03/2022	1,534	µmhos
Fluoride	8		2.70	09/08/2022	20.10	08/04/2021	21.34	mg/l
Hardness as	8		8.00	08/04/2021	14.00	06/03/2022	25.88	mg/l
Nitrate as N,	3		UH	08/04/2021	UH	09/10/2021	<u></u> UH	mg/l
Nitrate/Nitrite	3		UH	08/04/2021	UH	09/10/2021	UH	mg/l
Nitrite as N,	3		UH	08/04/2021	UH	09/10/2021	UH	mg/l
Nitrogen,	3		.24	09/03/2021	0.82	08/04/2021	1.07	mg/l
Nitrogen,	3		).93	08/04/2021	0.02	09/10/2021	0.48	mg/l
Nitrogen, Total	3		.75	08/04/2021	1.38	09/10/2021	1.55	mg/l
pH, lab	8		.7 <u>5</u> ).70	09/03/2021	9.20	08/04/2021	9.43	units
Phosphate,	3		5.30	08/04/2021	1.01	09/10/2021	3.34	mg/l
Phosphorus,	3		2.02	08/04/2021	0.33	09/10/2021	1.08	mg/l
SAR in Water	8		41	03/14/2022	16.00	08/04/2021	35	none
Sulfate	8		U	08/04/2021	U U	09/10/2021	<u> </u>	mg/l
Sulfide	3	0	0.09	09/10/2021	0.07	09/03/2021	0.08	mg/l
Total Dissolved	8		939	08/04/2021	830	06/03/2022	882	mg/l
Conductivity,	12		,620	07/23/2021	1,421	09/08/2022	1,478	µmhos
pH, Field	12		, <u>020</u> ).50	03/14/2022	7.04	07/23/2022	8.68	units
	Temperature	12	25.50	07/23/2021	11.60	11/08/2022	18.23	(°C)
Water Level,	7	452.00	11/07/2022			03/14/2022	447.81	
	1	452.00	11/01/2022	-		00/14/2022	10.17	11.
Parameters	No. of		<b>.</b>			5.4	•	
Metals	Samples	High	Date	Low	/	Date	Average	Units
Aluminum,	3							
Arsenic,		U	$08/04/202^{2}$	I U		09/10/2021	U	ma/l
	3	U 0.011	08/04/202		1	09/10/2021	•	mg/l ma/l
	3	0.011	08/04/2022	I 0.00		09/10/2021	0.004	mg/l
Barium,	3	0.011 0.40	08/04/202 09/10/202	l 0.00 l 0.07		09/10/2021 08/04/2021	0.004 0.24	mg/l mg/l
Barium, Beryllium,	3 3 3	0.011 0.40 U	08/04/2021 09/10/2021 08/04/2021	I 0.00 I 0.07 I U	7	09/10/2021 08/04/2021 09/10/2021	0.004 0.24 U	mg/l mg/l mg/l
Barium, Beryllium, Boron,	3 3 3 8	0.011 0.40	08/04/202 09/10/202 08/04/202 08/04/202	I 0.00 I 0.07 I U I 0.71	7	09/10/2021 08/04/2021 09/10/2021 09/03/2021	0.004 0.24 U 0.73	mg/l mg/l mg/l mg/l
Barium, Beryllium, Boron, Cadmium,	3 3 3 8 3	0.011 0.40 U 0.82 U	08/04/202 09/10/202 08/04/202 08/04/202 08/04/202	I 0.00 I 0.07 I U I 0.71 I U	7	09/10/2021 08/04/2021 09/10/2021 09/03/2021 09/10/2021	0.004 0.24 U 0.73 U	mg/l mg/l mg/l mg/l mg/l
Barium, Beryllium, Boron, Cadmium, Calcium,	3 3 3 8 3 8 8	0.011 0.40 U 0.82 U 17.40	08/04/202 09/10/202 08/04/202 08/04/202 08/04/202 08/04/202	I 0.00 I 0.07 I U I 0.71 I U I 2.50	7	09/10/2021 08/04/2021 09/10/2021 09/03/2021 09/10/2021 11/08/2022	0.004 0.24 U 0.73 U 4.93	mg/l mg/l mg/l mg/l mg/l
Barium, Beryllium, Boron, Cadmium, Calcium, Chromium,	3 3 3 8 3 8 3 3 3	0.011 0.40 U 0.82 U 17.40 U	08/04/202 09/10/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202	I 0.00 I 0.07 I 0.71 I 0.71 I 0.71 I 0.71 I 0.71 I 0.71	7	09/10/2021 08/04/2021 09/10/2021 09/03/2021 09/10/2021 11/08/2022 09/10/2021	0.004 0.24 U 0.73 U 4.93 U	mg/l mg/l mg/l mg/l mg/l mg/l
Barium, Beryllium, Cadmium, Calcium, Chromium, Copper,	3 3 3 8 3 8 3 3 3 3	0.011 0.40 U 0.82 U 17.40 U U	08/04/202 09/10/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202	I 0.00 I 0.07 I 0.71 I	)	09/10/2021 08/04/2021 09/10/2021 09/03/2021 09/10/2021 11/08/2022 09/10/2021 09/10/2021	0.004 0.24 U 0.73 U 4.93 U U U	mg/l mg/l mg/l mg/l mg/l mg/l
Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved	3 3 8 3 8 3 8 3 3 3 3	0.011 0.40 U 0.82 U 17.40 U U 1.06	08/04/202 09/10/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202	I 0.00 I 0.07 I 0.71 I 0.71 I 0.71 I 0.71 I 0.71 I 0.71 I 0.45	)	09/10/2021 08/04/2021 09/10/2021 09/03/2021 09/10/2021 11/08/2022 09/10/2021 09/10/2021	0.004 0.24 U 0.73 U 4.93 U U U 0.66	mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved	3 3 8 3 8 3 8 3 3 3 3	0.011 0.40 U 0.82 U 17.40 U U 1.06 U	08/04/202 09/10/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 09/03/202 08/04/202	I 0.00 I 0.07 I U I 0.71 I 0.71 I 0.71 I U I 0.71 I U I 0.71 I 0.71 I U	)	09/10/2021 08/04/2021 09/10/2021 09/10/2021 11/08/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021	0.004 0.24 U 0.73 U 4.93 U U U U 0.66 U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium,	3 3 8 3 3 3 3 3 3 3 3 3 3 3	0.011 0.40 U 0.82 U 17.40 U U 1.06 U 0.26	08/04/202 09/10/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 09/03/202 08/04/202 08/04/202 08/04/202	I 0.00 I 0.07 I U I 0.71 I 0.71 I 0.71 I U I 0.71 I 0.71 I 0.71 I 0.71 I 0.71 I 0.23	7 	09/10/2021 08/04/2021 09/10/2021 09/10/2021 11/08/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021	0.004 0.24 U 0.73 U 4.93 U U U 0.66 U 0.24	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium,	3 3 8 3 3 3 3 3 3 3 3 3 8 8	0.011 0.40 U 0.82 U 17.40 U U 1.06 U 0.26 10.80	08/04/202 09/10/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202	I 0.00 I 0.07 I U I 0.71 I 2.50 I U I 0.45 I 0.23 I 0.23 I 1.81	7 	09/10/2021 08/04/2021 09/10/2021 09/10/2021 11/08/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/08/2022	0.004 0.24 U 0.73 U 4.93 U U 0.66 U 0.24 3.27	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese,	3 3 8 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	0.011 0.40 U 0.82 U 17.40 U U 1.06 U 0.26 10.80 0.03	08/04/202 09/10/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 09/03/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202	0.00           0.07           0.71           0.72           1           0.72	7 	09/10/2021 08/04/2021 09/10/2021 09/10/2021 11/08/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/08/2022 09/10/2021	0.004 0.24 U 0.73 U 4.93 U U U 0.66 U 0.24 3.27 0.02	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury,	3 3 3 8 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	0.011 0.40 U 0.82 U 17.40 U U 1.06 U 0.26 10.80 0.03 U	08/04/202 09/10/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202	0.00           0.07           0.71           0.72           1           0.72           1	7 ) 5 3   2	09/10/2021 08/04/2021 09/10/2021 09/10/2021 11/08/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021	0.004 0.24 U 0.73 U 4.93 U U U 0.66 U 0.24 3.27 0.02 U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum,	3 3 3 8 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	0.011 0.40 U 0.82 U 17.40 U U 1.06 U 0.26 10.80 0.03 U 0.02	08/04/202 09/10/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202	0.00           0.07           0.71           0.72           0.72           0.72           0.72           0.72           0.72           0.72	7 ) 5 3   2	09/10/2021 08/04/2021 09/10/2021 09/10/2021 11/08/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021	0.004 0.24 U 0.73 U 4.93 U U U 0.66 U 0.24 3.27 0.02 U 0.02	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel,	3 3 8 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	0.011 0.40 U 0.82 U 17.40 U U 1.06 U 0.26 10.80 0.03 U 0.02 U	08/04/202 09/10/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202	0.00           0.07           0.71	7 ) 5 3 1 2 2	09/10/2021 08/04/2021 09/10/2021 09/10/2021 11/08/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 08/04/2021	0.004 0.24 U 0.73 U 4.93 U U 0.66 U 0.24 3.27 0.02 U 0.02 U 0.02 U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium,	3 3 3 8 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	0.011 0.40 U 0.82 U 17.40 U U 1.06 U 0.26 10.80 0.03 U 0.02 U 8.03	08/04/202 09/10/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202	0.00           0.07           0.71	7 1 0 5 5 6 7 7 7 7 7 7 7 7 7 7 7 7 7	09/10/2021 08/04/2021 09/10/2021 09/10/2021 11/08/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 08/04/2021 09/10/2021 11/08/2022	0.004 0.24 U 0.73 U 4.93 U U 0.66 U 0.24 3.27 0.02 U 0.02 U 0.02 U 0.02 U 0.02	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium,	3 3 3 8 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	0.011 0.40 U 0.82 U 17.40 U U 1.06 U 0.26 10.80 0.03 U 0.02 U 8.03 0.0104	08/04/202 09/10/202 08/04/202	0.00           0.07           0.71	7 1 0 5 5 8 1 2 2 2 3 0 1	09/10/2021 08/04/2021 09/10/2021 09/10/2021 11/08/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 11/08/2022 08/04/2021	0.004 0.24 U 0.73 U 4.93 U U 0.66 U 0.24 3.27 0.02 U 0.02 U 0.02 U 0.02 U 0.02 U 0.02 0.02	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica,	3 3 3 8 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	0.011 0.40 U 0.82 U 17.40 U U 1.06 U 0.26 10.80 0.03 U 0.02 U 8.03 0.0104 15.80	08/04/202 09/10/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 09/03/202 09/03/202 08/04/202	0.00           0.07           0.71	7 1 0 5 5 8 1 2 2 2 3 0 1 0 1	09/10/2021 08/04/2021 09/10/2021 09/10/2021 11/08/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 11/08/2022 08/04/2021 03/14/2022	0.004 0.24 U 0.73 U 4.93 U U 0.66 U 0.24 3.27 0.02 U 0.02 U 0.02 U 0.02 U 0.02 5.45	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica, Sodium,	3 3 3 8 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	0.011 0.40 U 0.82 U 17.40 U U 1.06 U 0.26 10.80 0.03 U 0.02 U 8.03 0.0104 15.80 356	08/04/202 09/10/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 09/03/202 09/03/202 09/03/202	0.00           0.07           0.71           0.723           0.733           0.745           0.745           0.755	7 1 2 2 3 1 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1	09/10/2021 08/04/2021 09/10/2021 11/08/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 11/08/2022 08/04/2021 03/14/2022 06/03/2022	0.004 0.24 U 0.73 U 4.93 U U 0.66 U 0.24 3.27 0.02 U 0.02 U 0.02 U 0.02 U 0.02 5.45 350	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica, Sodium, Strontium,	3 3 3 8 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	0.011 0.40 U 0.82 U 17.40 U U 1.06 U 0.26 10.80 0.03 U 0.02 U 8.03 0.0104 15.80 356 0.69	08/04/202 09/10/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 09/03/202 09/03/202 09/03/202 09/03/202 09/03/202 09/03/202	0.00           0.07           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.723           0.733           0.745           0.754           0.754	7 1 2 2 3 1 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1	09/10/2021 08/04/2021 09/10/2021 11/08/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 11/08/2022 08/04/2021 03/14/2022 08/04/2021	0.004 0.24 U 0.73 U 4.93 U U 0.66 U 0.24 3.27 0.02 U 0.02 U 0.02 U 0.02 U 0.0052 5.45 350 0.61	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica, Sodium,	3 3 3 8 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	0.011 0.40 U 0.82 U 17.40 U U 1.06 U 0.26 10.80 0.03 U 0.02 U 8.03 0.0104 15.80 356	08/04/202 09/10/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 08/04/202 09/03/202 09/03/202 09/03/202	0.00           0.07           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.71           0.723           1.0023           1.0023           1.0024           0.0254           1.00003           1.0003           1.0003           1.0003           1.0003           1.0004           1.0004           1.0004           1.0004           1.0004           1.0004           1.0004           1.0004           1.0004           1.0004           1.0004           1.0004           1.0004           1.0004	7 1 2 2 3 1 2 3 1 1 1 1 1 1 1 1 1 1 1 1 1	09/10/2021 08/04/2021 09/10/2021 11/08/2022 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 09/10/2021 11/08/2022 08/04/2021 03/14/2022 06/03/2022	0.004 0.24 U 0.73 U 4.93 U U 0.66 U 0.24 3.27 0.02 U 0.02 U 0.02 U 0.02 U 0.02 5.45 350	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Table 30: BG-10 Quarterly B-Groove Aquifer

DAUB & ASSOCIATES, INC. 201 3 Frank Contraction of the State



Deremetere	No. of							
Parameters Wet Chemistry	No. of Samples	н	ligh	Date	Low	Date	Average	Units
Bicarbonate as	<u>16</u>	8	327	03/09/2021	683	03/05/2021	763	mg/l
Carbonate as	16		181	02/22/2022	63	03/16/2021	127	mg/l
Total Alkalinity as	16		955	09/07/2022	830	05/03/2021	890	mg/l
Bromide	4		U	05/03/2021	<u> </u>	03/05/2021	<u> </u>	mg/l
Cation-Anion	16	Δ	.80	08/02/2021	-7.70	07/12/2021	-1.64	%
Sum of Anions	16		5.00	09/07/2022	19.00	03/05/2021	21.44	meq/l
Sum of Cations	16		5.00	09/07/2022	17.00	03/05/2021	20.81	meq/l
Chemical	4		4.00	03/05/2021	10.00	03/09/2021	16.75	mg/l
Chloride	16		183	09/07/2022	43	03/16/2021	93	mg/l
Conductivity,	16	2,370		09/07/2022	1,690	05/03/2021	1,940	umhos
Fluoride	16			05/03/2021	19.80	06/03/2022	21.56	mg/l
Hardness as	16	24.70		08/02/2021	14.00	03/16/2021	17.50	mg/l
Nitrate as N,	4	22.00 0.06		03/05/2021	UH	03/05/2021	UH	mg/l
Nitrate/Nitrite	4		).06	03/05/2021	UH	03/05/2021	UH	mg/l
	4		UH		UH		UH	
Nitrite as N,				05/03/2021		03/05/2021		mg/l
Nitrogen,	4		).99	03/16/2021	0.89	03/05/2021	0.95	mg/l
Nitrogen,	4		0.28	03/05/2021	U	03/05/2021	U	mg/l
Nitrogen, Total	4		.17	03/05/2021	0.96	03/16/2021	1.06	mg/l
pH, lab	16		0.20	11/02/2021	8.50	10/05/2021	8.89	units
Phosphate,	4		2.04	03/05/2021	0.15	03/16/2021	0.65	mg/l
Phosphorus,	4		0.66	03/05/2021	0.05	03/16/2021	0.21	mg/l
SAR in Water	16		56	09/07/2022	39.00	03/05/2021	49	none
Sulfate	16		5	03/05/2021	U	10/05/2021	U	mg/l
Sulfide	4		0.02	05/03/2021	U	03/05/2021	U	mg/l
Total Dissolved	16	1,	,360	09/07/2022	972	03/05/2021	1,145	mg/l
Conductivity,	15	2,	,276	11/08/2022	1,637	03/09/2021	1,903	µmhos
pH, Field	15	8	3.90	10/05/2021	8.15	07/12/2021	8.50	units
	Temperature	15	17.40	07/12/2021	12.60	03/09/2021	14.68	(°C)
Water Level,	15	561.40	11/08/2022	2 539.4	10	03/16/2021	551.26	Ft.
			•			00,10,2021	•	
Parameters	No. of	High			,		Average	
Parameters Metals	No. of Samples	High	Date	Low	1	Date	Average	Units
		High U		Low	1		Average	
Metals Aluminum,	Samples	-	<b>Date</b> 03/05/202 <sup>2</sup>	Low U		<b>Date</b> 05/03/2021	•	Units mg/l
Metals Aluminum, Arsenic,	Samples 4	U 0.03	Date 03/05/202 <sup>2</sup> 03/09/202 <sup>2</sup>	Low	)	Date 05/03/2021 05/03/2021	U 0.01	Units mg/l mg/l
Metals Aluminum, Arsenic, Barium,	Samples           4           4           4           4           4	U	Date 03/05/202 <sup>2</sup> 03/09/202 <sup>2</sup> 05/03/202 <sup>2</sup>	Low U 0.00	)	Date 05/03/2021 05/03/2021 03/05/2021	U	Units mg/l mg/l mg/l
Metals Aluminum, Arsenic, Barium, Beryllium,	Samples           4           4           4           4           4           4	U 0.03 0.41 U	Date 03/05/202 03/09/202 05/03/202 03/05/202	Low U 0.00 0.19	)	Date 05/03/2021 05/03/2021 03/05/2021 05/03/2021	U 0.01 0.32 U	Units mg/l mg/l mg/l
Metals Aluminum, Arsenic, Barium, Beryllium, Boron,	Samples           4           4           4           4           16	U 0.03 0.41	Date 03/05/202 03/09/202 05/03/202 03/05/202 11/02/202	Low U 0.00 0.19 U 0.74	)	Date 05/03/2021 05/03/2021 03/05/2021 05/03/2021 03/05/2021	U 0.01 0.32	Units mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium,	Samples           4           4           4           4           16           4	U 0.03 0.41 U 0.89 U	Date 03/05/202 03/09/202 05/03/202 03/05/202 11/02/202 03/05/202	Low 0.00 0.19 0.74	) ) 	Date 05/03/2021 05/03/2021 03/05/2021 05/03/2021 03/05/2021 05/03/2021	U 0.01 0.32 U 0.82 U	Units mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium,	Samples           4           4           4           16           4           16           16           16           16	U 0.03 0.41 U 0.89 U 4.78	Date 03/05/202 03/09/202 05/03/202 03/05/202 11/02/202 03/05/202 12/07/202	Low U 0.00 0.19 0.74 0.74 0.74 0.74 0.74 0.74 0.74 0.74	) ) 	Date 05/03/2021 05/03/2021 03/05/2021 05/03/2021 05/03/2021 04/05/2021	U 0.01 0.32 U 0.82 U 3.37	Units mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium,	Samples           4           4           4           16           4           16           4	U 0.03 0.41 U 0.89 U 4.78 0.01	Date 03/05/202 03/09/202 05/03/202 03/05/202 11/02/202 03/05/202 12/07/202 03/05/202	Low 0.00 0.19 0.72 0.72 0.72 0.72	) ) 	Date 05/03/2021 05/03/2021 03/05/2021 05/03/2021 05/03/2021 04/05/2021 03/05/2021	U 0.01 0.32 U 0.82 U 3.37 0.01	Units mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper,	Samples           4           4           4           16           4           16           4           4	U 0.03 0.41 U 0.89 U 4.78 0.01 0.01	Date 03/05/202 03/09/202 05/03/202 03/05/202 11/02/202 03/05/202 12/07/202 03/05/202 03/05/202	Low 0.00 0.19 0.72 0.72 0.74 0.74 0.74 0.74 0.75 0.01	) ) } 5	Date 05/03/2021 05/03/2021 03/05/2021 05/03/2021 05/03/2021 04/05/2021 03/05/2021 05/03/2021	U 0.01 0.32 U 0.82 U 3.37 0.01 0.01	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved	Samples           4           4           4           16           4           16           4           4           4           4           4           4           4           4           4           4           4           4           4           4           4	U 0.03 0.41 U 0.89 U 4.78 0.01 0.01 0.94	Date 03/05/202' 03/09/202' 05/03/202' 03/05/202' 11/02/202' 03/05/202' 03/05/202' 03/05/202' 05/03/202' 03/16/202'	Low 0.00 0.19 0.72 0.72 0.74 0.74 0.01 0.01 0.01 0.40	) ) } 5	Date 05/03/2021 05/03/2021 03/05/2021 05/03/2021 05/03/2021 04/05/2021 03/05/2021 05/03/2021 05/03/2021	U 0.01 0.32 U 0.82 U 3.37 0.01 0.01 0.66	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved	Samples           4           4           4           16           4           16           4           4           4           4           4           4           4           4           4           4           4           4           4           4           4           4           4           4	U 0.03 0.41 U 0.89 U 4.78 0.01 0.01 0.94 U	Date 03/05/202' 03/09/202' 05/03/202' 03/05/202' 11/02/202' 03/05/202' 03/05/202' 03/05/202' 03/16/202' 03/05/202'	Low 0.00 0.19 0.72 0.72 0.74 0.74 0.01 0.01 0.01 0.40 0.40	) )         )	Date 05/03/2021 05/03/2021 03/05/2021 05/03/2021 05/03/2021 04/05/2021 03/05/2021 05/03/2021 05/03/2021 05/03/2021	U 0.01 0.32 U 0.82 U 3.37 0.01 0.01 0.66 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium,	Samples           4           4           4           16           4           16           4	U 0.03 0.41 U 0.89 U 4.78 0.01 0.01 0.94 U 0.16	Date 03/05/202' 03/09/202' 05/03/202' 03/05/202' 11/02/202' 03/05/202' 03/05/202' 03/05/202' 03/16/202' 03/16/202'	Low 0.00 0.19 0.74 0.74 0.74 0.01 0.01 0.01 0.01	) ) 4 5     )	Date 05/03/2021 05/03/2021 03/05/2021 05/03/2021 05/03/2021 04/05/2021 03/05/2021 05/03/2021 05/03/2021 05/03/2021 03/05/2021	U 0.01 0.32 U 0.82 U 3.37 0.01 0.01 0.66 U 0.16	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium,	Samples           4           4           4           16           4           16	U 0.03 0.41 U 0.89 U 4.78 0.01 0.01 0.94 U 0.16 2.97	Date 03/05/202' 03/09/202' 05/03/202' 03/05/202' 11/02/202' 03/05/202' 03/05/202' 03/05/202' 03/16/202' 03/16/202' 03/16/202' 08/02/202'	Low 0.00 0.19 0.74 0.74 0.74 0.01 0.01 0.01 0.01 0.01 0.01 0.15 0.15	) ) 4 5 ) 5 )	Date 05/03/2021 05/03/2021 03/05/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 03/05/2021 03/05/2021	U 0.01 0.32 U 0.82 U 3.37 0.01 0.01 0.66 U 0.16 2.20	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese,	Samples           4           4           4           16           4<	U 0.03 0.41 U 0.89 U 4.78 0.01 0.01 0.94 U 0.16 2.97 0.04	Date 03/05/202' 03/09/202' 05/03/202' 03/05/202' 11/02/202' 03/05/202' 03/05/202' 03/05/202' 03/16/202' 03/16/202' 03/16/202' 03/16/202' 03/05/202'	Low 0.00 0.15 0.72 0.74 0.74 0.74 0.74 0.01 0.01 0.01 0.01 0.01 0.15 1.75 0.02	) ) 4 5 ) 5 )	Date 05/03/2021 05/03/2021 03/05/2021 05/03/2021 03/05/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 03/05/2021 03/16/2021	U 0.01 0.32 U 0.82 U 3.37 0.01 0.01 0.66 U 0.16 2.20 0.03	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, Barium, Beryllium, Calcium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury,	Samples           4           4           4           16           4	U 0.03 0.41 U 0.89 U 4.78 0.01 0.01 0.94 U 0.16 2.97 0.04 U	Date 03/05/202' 03/09/202' 05/03/202' 03/05/202' 11/02/202' 03/05/202' 03/05/202' 03/05/202' 03/16/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202'	Low 0.00 0.19 0.72 0.74 0.74 0.74 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.0	) ) 4 	Date 05/03/2021 05/03/2021 03/05/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 03/05/2021 03/16/2021 03/16/2021 05/03/2021	U 0.01 0.32 U 0.82 U 3.37 0.01 0.01 0.66 U 0.16 2.20 0.03 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, Barium, Beryllium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum,	Samples           4           4           4           16           4           16           4           16           4           16           4	U 0.03 0.41 U 0.89 U 4.78 0.01 0.01 0.94 U 0.16 2.97 0.04 U 0.13	Date 03/05/202' 03/09/202' 05/03/202' 03/05/202' 11/02/202' 03/05/202' 03/05/202' 03/05/202' 03/16/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202'	Low 0.00 0.15 0.72 0.72 0.74 0.75 0	) ) 4 	Date 05/03/2021 05/03/2021 03/05/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 05/03/2021 03/05/2021 03/16/2021 03/16/2021 03/05/2021	U 0.01 0.32 U 0.82 U 3.37 0.01 0.01 0.66 U 0.16 2.20 0.03 U 0.09	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, Barium, Beryllium, Calcium, Magnesium, Manganese, Mercury, Molybdenum, Nickel,	Samples           4           4           4           16           4           16           4           16           4	U 0.03 0.41 U 0.89 U 4.78 0.01 0.01 0.94 U 0.16 2.97 0.04 U 0.13 U	Date 03/05/202' 03/09/202' 05/03/202' 03/05/202' 11/02/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202'	Low 0.00 0.15 0.72 0.72 0.74 0.75 0	) ) } 5 ] ) 5 ] 2 ] 2 ] 2 ]	Date 05/03/2021 05/03/2021 03/05/2021 03/05/2021 03/05/2021 04/05/2021 04/05/2021 05/03/2021 05/03/2021 03/16/2021 03/16/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021	U 0.01 0.32 U 0.82 U 3.37 0.01 0.01 0.66 U 0.16 2.20 0.03 U 0.09 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, Barium, Beryllium, Calcium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium,	Samples           4           4           4           16           4           16           4           16	U 0.03 0.41 U 0.89 U 4.78 0.01 0.94 U 0.16 2.97 0.04 U 0.13 U 2.90	Date 03/05/202' 03/09/202' 05/03/202' 03/05/202' 11/02/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202'	Low 0.00 0.19 0.72 0.74 0.75 0	) ) ) 5	Date 05/03/2021 05/03/2021 03/05/2021 03/05/2021 03/05/2021 04/05/2021 04/05/2021 05/03/2021 05/03/2021 03/16/2021 03/16/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 04/05/2021	U 0.01 0.32 U 0.82 U 3.37 0.01 0.01 0.01 0.01 0.66 U 0.16 2.20 0.03 U 0.09 U 1.20	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, Barium, Beryllium, Calcium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium,	Samples           4           4           4           16           4           16           4	U 0.03 0.41 U 0.89 U 4.78 0.01 0.01 0.94 U 0.16 2.97 0.04 U 0.13 U 2.90 0.0017	Date 03/05/202' 03/09/202' 05/03/202' 03/05/202' 11/02/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202' 03/05/202'	Low U U U U U U U U U U U U U U U U U U U	) ) ) 5 ) ) 5 ) 2 ) 3	Date 05/03/2021 05/03/2021 03/05/2021 03/05/2021 03/05/2021 04/05/2021 04/05/2021 05/03/2021 05/03/2021 03/16/2021 03/16/2021 03/05/2021 03/05/2021 04/05/2021 04/05/2021 03/05/2021	U 0.01 0.32 U 0.82 U 3.37 0.01 0.01 0.01 0.066 U 0.16 2.20 0.03 U 0.09 U 1.20 0.0010	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica,	Samples           4           4           4           16           4           16           4           16           4           16           4           16           4           16           4           16           4           16	U 0.03 0.41 U 0.89 U 4.78 0.01 0.01 0.94 U 0.16 2.97 0.04 U 0.13 U 2.90 0.0017 16.60	Date 03/05/202' 03/09/202' 05/03/202' 03/05/202' 11/02/202' 03/05/202'	Low 0.00 0.19 0.74 0.74 0.74 0.74 0.74 0.01 0.02 0.02 0.02 0.00 0.02 0.00 0.02 0.00 0.02 0.00 0.00 0.02 0.000 0.0000 0.00000 0.0000 0.0000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000000	) ) ) 5 ) ) 5 ) 2 ) 5 ) 5 ) 5 ) 5 ) 5 )	Date 05/03/2021 05/03/2021 03/05/2021 05/03/2021 03/05/2021 03/05/2021 04/05/2021 05/03/2021 05/03/2021 03/05/2021 03/16/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021	U 0.01 0.32 U 0.82 U 3.37 0.01 0.01 0.066 U 0.16 2.20 0.03 U 0.09 U 1.20 0.0010 14.92	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica, Sodium,	Samples           4           4           4           16           4           16           4           16           4           16           16           16           16           16	U 0.03 0.41 U 0.89 U 4.78 0.01 0.01 0.94 U 0.16 2.97 0.04 U 0.13 U 0.13 U 2.90 0.0017 16.60 553	Date 03/05/202' 03/09/202' 05/03/202' 03/05/202' 11/02/202' 03/05/202'	Low 0.000 0.19 0.19 0.19 0.19 0.19 0.19 0.01 0.02 0.02 0.00 0.02 0.00 0.00 0.02 0.000 0.0000 0.00000 0.0000 0.0000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000 0.00000000	) ) ) 5 ) ) 5 ) 2 ) 5 ) 5 ) 5 ) 5 ) 5 )	Date 05/03/2021 05/03/2021 03/05/2021 05/03/2021 05/03/2021 05/03/2021 04/05/2021 05/03/2021 05/03/2021 03/05/2021 03/16/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021	U 0.01 0.32 U 0.82 U 3.37 0.01 0.01 0.066 U 0.16 2.20 0.03 U 0.09 U 1.20 0.0010 14.92 462	Units mq/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg
Metals Aluminum, Arsenic, Barium, Beryllium, Cadmium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Selenium, Strontium,	Samples           4           4           4           16           4           16           4           4           4           4           4           4           4           4           4           4           4           4           4           4           4           4           4           16           4           16           16           16           16           16           16           16           16           16	U 0.03 0.41 U 0.89 U 4.78 0.01 0.01 0.94 U 0.16 2.97 0.04 U 0.13 U 2.90 0.0017 16.60 553 1.09	Date 03/05/202' 03/09/202' 05/03/202' 03/05/202' 11/02/202' 03/05/202'	Low U U U U U U U U U U U U U U U U U U U	) ) ) 5 ) ) 5 ) 2 ) 5 ) 5 ) 5 ) 5 ) 5 )	Date 05/03/2021 05/03/2021 03/05/2021 05/03/2021 03/05/2021 03/05/2021 04/05/2021 05/03/2021 05/03/2021 03/05/2021 03/16/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021	U 0.01 0.32 U 0.82 U 3.37 0.01 0.01 0.066 U 0.16 2.20 0.03 U 0.09 U 1.20 0.0010 14.92 462 0.87	Units ma/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg
Metals Aluminum, Arsenic, Barium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica, Sodium,	Samples           4           4           4           16           4           16           4           16           4           16           16           16           16           16	U 0.03 0.41 U 0.89 U 4.78 0.01 0.01 0.94 U 0.16 2.97 0.04 U 0.13 U 0.13 U 2.90 0.0017 16.60 553	Date 03/05/202' 03/09/202' 05/03/202' 03/05/202' 11/02/202' 03/05/202'	Low 0.000 0.19 0.19 0.19 0.19 0.19 0.19 0.01 0.02 0.02 0.00 0.00 0.02 0.00 0.00 0.02 0.000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.0000 0.000	) ) ) 5 ) ) 5 ) 2 ) 5 ) 5 ) 5 ) 5 ) 5 )	Date 05/03/2021 05/03/2021 03/05/2021 05/03/2021 05/03/2021 05/03/2021 04/05/2021 05/03/2021 05/03/2021 03/05/2021 03/16/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021 03/05/2021	U 0.01 0.32 U 0.82 U 3.37 0.01 0.01 0.066 U 0.16 2.20 0.03 U 0.09 U 1.20 0.0010 14.92 462	Units mq/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg

#### Table 31: BG-11 Quarterly B-Groove Aquifer

DAUB & ASSOCIATES, INC. 2019 Jan Contraction of the Contraction



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Parameters Wet Chemistry	No. of	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3	Samples 65	806.00	12/16/1992	356.00	02/26/1991	634.50	mg/l
Carbonate as CaCO3	65	754.00	09/27/1990	10.00	06/16/1992	102.08	ma/l
Total Alkalinity as CaCO3	65	1,064.00	09/27/1990	375.00	09/07/1990	714.28	mg/l
Bromide	35	2.60	09/07/1990	0.06	05/26/2000	0.74	mg/l
Cation-Anion Balance	63	11.10	05/29/2002	-9.40	07/29/2009	0.31	%
Sum of Anions	57	24.21	09/27/1990	12.00	05/26/2004	16.40	meg/l
Sum of Cations	57	23.84	09/27/1990	13.00	05/26/2004	16.43	meq/l
Chemical Oxygen Demand	27	550.00	07/29/2009	11.00	08/24/2017	149.42	mg/l
Chloride	64	524.00	09/07/1990	11.00	06/30/1995	41.45	mg/l
Conductivity, Lab	63	1,660.00	09/08/1993	1,050.00	03/22/1993	1,436.27	µmhos
Fluoride	65	32.00	09/28/1993	2.80	05/28/1993	21.64	
Hardness as CaCO3	63		09/27/1994	3.00	06/30/2009		mg/l
	34	<u>59.00</u> 1.99				10.92	mg/l
Nitrate as N, dissolved	34		06/14/2008	0.02	06/30/1995	0.23	mg/l
Nitrate/Nitrite as N,		2.13	06/14/2008	0.02	09/28/1994	0.24	mg/l
Nitrite as N, dissolved	34	0.14	06/14/2008	0.01	10/03/2012	0.08	mg/l
Nitrogen, Ammonia	34	5.70	05/09/2001	0.58	05/21/2007	1.12	mg/l
Nitrogen, Organic	34	34.70	07/29/2009	0.37	03/08/2021	8.48	mg/l
Nitrogen, Total Kjeldahl	34	35.50	07/29/2009	1.13	03/08/2021	9.58	mg/l
pH, lab	63	11.60	12/20/1993	8.40	12/30/1996	8.87	units
Phosphate, total	34	0.90	09/07/1990	0.03	05/26/2000	0.14	mg/l
Phosphorus, total	34	0.30	09/07/1990	0.01	06/18/1996	0.05	mg/l
SAR in Water	53	92.00	11/27/2002	29.17	09/27/1990	52.53	none
Sulfate	65	140.00	06/14/2008	2.00	05/28/1991	17.55	mg/l
Sulfide	34	0.80	09/07/1990	0.01	05/26/2004	0.13	mg/l
Total Dissolved Solids	64	1,428.00	09/27/1990	690.00	05/29/2003	914.05	mg/l
Conductivity, Field	89	3,803.00	09/01/2009	982.00	11/21/2005	1,535.96	µmhos
pH, Field	88	12.00	09/27/1990	7.60	09/16/2019	9.27	units
Temperature (°C), Field	46	16.20	06/14/2008	8.00	12/01/1990	12.22	(°C)
Water Level, Field	63	435.60	08/24/2017	398.45	11/01/1990	412.60	Ft.
		1		I		I	I
Parameters							
	No. of	High	Date	Low	Date	Average	Units
Metals	Samples	•		-		•	
Metals Aluminum, dissolved	Samples 33	3.79	09/27/1990	0.03	05/26/2004	0.65	mg/l
Metals Aluminum, dissolved Arsenic, dissolved	Samples 33 33	3.79 0.0280	09/27/1990 09/27/1990	0.03	05/26/2004 05/26/2004	0.65 0.0068	mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	Samples 33 33 33 33	3.79 0.0280 0.44	09/27/1990 09/27/1990 03/08/2021	0.03 0.0003 0.01	05/26/2004 05/26/2004 09/07/1990	0.65 0.0068 0.24	mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	Samples 33 33 33 33 33	3.79 0.0280 0.44 U	09/27/1990 09/27/1990 03/08/2021 03/08/2021	0.03 0.0003 0.01 U	05/26/2004 05/26/2004 09/07/1990 09/07/1990	0.65 0.0068 0.24 U	mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	Samples 33 33 33 33 33 65	3.79 0.0280 0.44 U 0.72	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991	0.03 0.0003 0.01 U 0.19	05/26/2004 05/26/2004 09/07/1990 09/07/1990 12/20/1993	0.65 0.0068 0.24 U 0.57	mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	Samples 33 33 33 33 65 33	3.79 0.0280 0.44 U 0.72 U	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021	0.03 0.0003 0.01 U 0.19 U	05/26/2004 05/26/2004 09/07/1990 09/07/1990 12/20/1993 09/07/1990	0.65 0.0068 0.24 U 0.57 U	mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	Samples 33 33 33 65 33 65 33 65	3.79 0.0280 0.44 U 0.72 U 12.00	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990	0.03 0.0003 0.01 U 0.19 U 0.00	05/26/2004 05/26/2004 09/07/1990 09/07/1990 12/20/1993 09/07/1990 02/26/1991	0.65 0.0068 0.24 U 0.57 U 2.29	mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	Samples 33 33 33 65 33 65 33 65 33	3.79 0.0280 0.44 U 0.72 U 12.00 0.01	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021	0.03 0.0003 0.01 U 0.19 U 0.00 0.01	05/26/2004 05/26/2004 09/07/1990 09/07/1990 12/20/1993 09/07/1990 02/26/1991 09/07/1990	0.65 0.0068 0.24 U 0.57 U 2.29 0.01	mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	Samples 33 33 33 65 33 65 33 65 33 33 33	3.79 0.0280 0.44 U 0.72 U 12.00 0.01 0.07	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013	0.03 0.0003 0.01 U 0.19 U 0.00 0.01 0.07	05/26/2004 05/26/2004 09/07/1990 12/20/1993 09/07/1990 02/26/1991 09/07/1990 10/22/2013	0.65 0.0068 0.24 U 0.57 U 2.29 0.01 0.07	mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	Samples 33 33 33 65 33 65 33 65 33 33 33 33	3.79 0.0280 0.44 U 0.72 U 12.00 0.01 0.07 0.24	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014	0.03 0.0003 0.01 U 0.19 U 0.00 0.01 0.07 0.01	05/26/2004 05/26/2004 09/07/1990 12/20/1993 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999	0.65 0.0068 0.24 U 0.57 U 2.29 0.01 0.07 0.05	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	Samples 33 33 33 65 33 65 33 65 33 65 33 33 33 33 33 33	3.79 0.0280 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016	0.03 0.0003 0.01 U 0.19 U 0.00 0.01 0.07 0.01 0.02	05/26/2004 05/26/2004 09/07/1990 09/07/1990 12/20/1993 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994	0.65 0.0068 0.24 U 0.57 U 2.29 0.01 0.07 0.05 0.15	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	Samples 33 33 33 65 33 65 33 65 33 33 33 33 33 33 33 33	3.79 0.0280 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990	0.03 0.0003 0.01 U 0.19 U 0.00 0.01 0.07 0.01 0.02 0.06	05/26/2004 05/26/2004 09/07/1990 09/07/1990 12/20/1993 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992	0.65 0.0068 0.24 U 0.57 U 2.29 0.01 0.07 0.05 0.15 0.08	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	Samples 33 33 33 65 33 65 33 65 33 33 33 33 33 33 65 5 33 33 33 33 33 33 33 33 33	3.79 0.0280 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13 7.00	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990	0.03 0.0003 0.01 U 0.19 U 0.00 0.01 0.07 0.01 0.02 0.06 0.00	05/26/2004 05/26/2004 09/07/1990 12/20/1993 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992 02/26/1991	0.65 0.0068 0.24 U 0.57 U 2.29 0.01 0.07 0.05 0.15 0.08 1.21	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved	Samples 33 33 33 65 33 65 33 33 33 33 33 33 65 33 33 33 33 33 33 33 33 33 3	3.79 0.0280 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13 7.00 0.02	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990 09/27/1990 03/27/2018	0.03 0.0003 0.01 U 0.19 U 0.00 0.01 0.07 0.01 0.02 0.06 0.00 0.01	05/26/2004 05/26/2004 09/07/1990 12/20/1993 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992 02/26/1991 07/31/1991	0.65 0.0068 0.24 U 0.57 U 2.29 0.01 0.07 0.05 0.15 0.08 1.21 0.01	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Mercury, dissolved	Samples 33 33 33 65 33 65 33 33 33 33 33 65 33 33 33 33 33 33 33 33 33 3	3.79 0.0280 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13 7.00 0.02 U	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990 09/27/1990 03/27/2018 03/08/2021	0.03 0.0003 0.01 U 0.19 U 0.00 0.01 0.07 0.01 0.02 0.06 0.00 0.01 U	05/26/2004 05/26/2004 09/07/1990 12/20/1993 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992 02/26/1991 07/31/1991 09/07/1990	0.65 0.0068 0.24 U 0.57 U 2.29 0.01 0.07 0.05 0.15 0.08 1.21 0.01 U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved	Samples 33 33 33 65 33 65 33 33 33 33 65 33 33 33 33 33 33 33 33 33 3	3.79 0.0280 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13 7.00 0.02 U 0.02	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990 03/27/1990 03/27/2018 03/08/2021 03/22/2016	0.03 0.0003 0.01 U 0.19 U 0.00 0.01 0.07 0.01 0.02 0.06 0.00 0.01 U 0.02	05/26/2004 05/26/2004 09/07/1990 12/20/1993 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992 02/26/1991 07/31/1991 09/07/1990 03/22/2016	0.65 0.0068 0.24 U 0.57 U 2.29 0.01 0.07 0.05 0.15 0.08 1.21 0.01 U 0.02	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved	Samples 33 33 33 65 33 65 33 65 33 33 33 65 33 33 33 33 33 33 33 33 33 3	3.79 0.0280 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13 7.00 0.02 U 0.02 U 0.02	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990 03/27/1990 03/27/2018 03/08/2021 03/22/2016 06/23/1994	0.03 0.0003 0.01 U 0.19 U 0.00 0.01 0.07 0.01 0.02 0.06 0.00 0.01 U 0.02 0.02 0.02	05/26/2004 05/26/2004 09/07/1990 09/07/1990 12/20/1993 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992 02/26/1991 07/31/1991 09/07/1990 03/22/2016 06/23/1994	0.65 0.0068 0.24 U 0.57 U 2.29 0.01 0.07 0.05 0.15 0.08 1.21 0.01 U 0.02 0.02 0.02	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved	Samples 33 33 33 65 33 65 33 65 33 33 33 65 33 33 33 65 33 33 65 33 33 65 33 33 65 33 33 65 53 33 33 65 53 33 33 65 53 33 33 65 53 33 65 53 33 65 53 33 65 53 33 65 53 33 65 53 33 65 53 33 65 53 33 65 53 33 65 53 33 65 53 33 65 53 33 33 65 53 33 33 65 53 33 33 65 53 33 33 65 53 33 33 65 53 33 65 53 33 33 65 53 33 33 65 53 33 33 65 53 33 33 65 53 53 53 53 53 53 53 53 53 5	3.79 0.0280 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13 7.00 0.02 U 0.02 U 0.02 0.02 13.00	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990 03/27/2018 03/08/2021 03/22/2016 06/23/1994 09/07/1990	0.03 0.0003 0.01 U 0.19 U 0.00 0.01 0.07 0.01 0.02 0.06 0.00 0.01 U 0.02 0.02 0.02 0.02 0.86	05/26/2004 05/26/2004 09/07/1990 09/07/1990 12/20/1993 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992 02/26/1991 07/31/1991 09/07/1990 03/22/2016 06/23/1994 03/08/2021	0.65 0.0068 0.24 U 0.57 U 2.29 0.01 0.07 0.05 0.15 0.08 1.21 0.01 U 0.02 0.02 0.02 1.75	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved	Samples 33 33 33 65 33 65 33 65 33 33 33 65 33 33 33 33 33 33 33 33 33 3	3.79 0.0280 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13 7.00 0.02 U 0.02 U 0.02	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990 03/27/1990 03/27/2018 03/08/2021 03/22/2016 06/23/1994	0.03 0.0003 0.01 U 0.19 U 0.00 0.01 0.07 0.01 0.02 0.06 0.00 0.01 U 0.02 0.02 0.02	05/26/2004 05/26/2004 09/07/1990 09/07/1990 12/20/1993 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992 02/26/1991 07/31/1991 09/07/1990 03/22/2016 06/23/1994	0.65 0.0068 0.24 U 0.57 U 2.29 0.01 0.07 0.05 0.15 0.08 1.21 0.01 U 0.02 0.02 0.02	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	Samples 33 33 33 65 33 65 33 65 33 33 33 65 33 33 33 65 33 33 65 33 33 65 33 33 65 33 33 65 53 33 33 65 53 33 33 65 53 33 33 65 53 33 65 53 33 65 53 33 65 53 33 65 53 33 65 53 33 65 53 33 65 53 33 65 53 33 65 53 33 65 53 33 65 53 33 33 65 53 33 33 65 53 33 33 65 53 33 33 65 53 33 33 65 53 33 65 53 33 33 65 53 33 33 65 53 33 33 65 53 33 33 65 53 53 53 53 53 53 53 53 53 5	3.79 0.0280 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13 7.00 0.02 U 0.02 U 0.02 0.02 13.00	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990 03/27/2018 03/08/2021 03/22/2016 06/23/1994 09/07/1990	0.03 0.0003 0.01 U 0.19 U 0.00 0.01 0.07 0.01 0.02 0.06 0.00 0.01 U 0.02 0.02 0.02 0.02 0.86	05/26/2004 05/26/2004 09/07/1990 09/07/1990 12/20/1993 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992 02/26/1991 07/31/1991 09/07/1990 03/22/2016 06/23/1994 03/08/2021	0.65 0.0068 0.24 U 0.57 U 2.29 0.01 0.07 0.05 0.15 0.08 1.21 0.01 U 0.02 0.02 0.02 1.75	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	Samples 33 33 33 65 33 65 33 33 33 33 65 33 33 65 33 33 65 33 33 65 33 33 65 33 65 33 33 65 53 33 33 65 53 33 65 53 33 65 53 33 65 53 33 65 53 33 65 53 33 65 53 33 65 53 53 53 53 53 55 53 55 55 5	3.79 0.0280 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13 7.00 0.02 U 0.02 U 0.02 13.00 0.002	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990 03/27/2018 03/08/2021 03/22/2016 06/23/1994 09/07/1990 09/27/1990	0.03 0.0003 0.01 U 0.19 U 0.00 0.01 0.07 0.01 0.02 0.06 0.00 0.01 U 0.02 0.02 0.02 0.02 0.86 0.001	05/26/2004 05/26/2004 09/07/1990 09/07/1990 12/20/1993 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992 02/26/1991 07/31/1991 03/22/2016 06/23/1994 03/08/2021 07/31/1991 12/20/1993	0.65 0.0068 0.24 U 0.57 U 2.29 0.01 0.07 0.05 0.15 0.08 1.21 0.01 U 0.02 0.02 1.75 0.001 17.38	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Selenium, dissolved	Samples 33 33 33 65 33 65 33 65 33 33 33 65 33 33 33 65 33 33 33 33 33 33 33 33 33 3	3.79 0.0280 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13 7.00 0.02 U 0.02 U 0.02 13.00 0.002 63.00	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990 03/27/2018 03/08/2021 03/22/2016 06/23/1994 09/07/1990 09/27/1990	0.03 0.0003 0.01 U 0.19 U 0.00 0.01 0.07 0.01 0.02 0.06 0.00 0.01 U 0.02 0.02 0.02 0.02 0.02 0.02 0.86 0.001 9.50 287.00	05/26/2004 05/26/2004 09/07/1990 09/07/1990 12/20/1993 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992 02/26/1991 07/31/1991 03/22/2016 06/23/1994 03/08/2021 07/31/1991 12/20/1993 12/20/1993	0.65 0.0068 0.24 U 0.57 U 2.29 0.01 0.07 0.05 0.15 0.08 1.21 0.01 U 0.02 0.02 1.75 0.001	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	Samples 33 33 33 65 33 65 33 65 33 33 65 33 33 65 33 33 65 55 33 65 65 33 65 65 33 65 65 33 65 65 33 65 65 33 65 65 33 65 65 33 65 65 33 65 55 33 65 65 33 65 65 33 65 33 65 65 33 65 33 65 33 65 33 65 33 65 33 65 33 65 33 65 33 65 55 33 65 33 65 33 65 55 33 65 55 33 65 55 33 65 55 33 65 55 33 65 65 53 33 65 65 55 65 65 65 65 65 65 65	3.79 0.0280 0.44 U 0.72 U 12.00 0.01 0.07 0.24 0.32 0.13 7.00 0.02 U 0.02 U 0.02 13.00 0.002 63.00 508.00	09/27/1990 09/27/1990 03/08/2021 03/08/2021 01/31/1991 03/08/2021 09/27/1990 03/08/2021 10/22/2013 11/06/2014 03/22/2016 09/07/1990 03/27/2018 03/08/2021 03/22/2016 06/23/1994 09/07/1990 09/27/1990	0.03 0.0003 0.01 U 0.19 U 0.00 0.01 0.07 0.01 0.02 0.06 0.00 0.01 U 0.02 0.02 0.02 0.02 0.02 0.86 0.001 9.50	05/26/2004 05/26/2004 09/07/1990 09/07/1990 12/20/1993 09/07/1990 02/26/1991 09/07/1990 10/22/2013 05/26/1999 06/23/1994 09/15/1992 02/26/1991 07/31/1991 03/22/2016 06/23/1994 03/08/2021 07/31/1991 12/20/1993	0.65 0.0068 0.24 U 0.57 U 2.29 0.01 0.07 0.05 0.15 0.08 1.21 0.01 U 0.02 0.02 1.75 0.001 17.38 367.60	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Table 32: MMC-IRI-6 Annual B-Groove Aquifer

DAUB & ASSOCIATES, INC. 201 State Concerts In Market



		1	r				
Parameters Wet Chemistry	No. of Samples	High	Date	Low	Date	Average	Units
Bicarbonate as CaCO3	170	66,300.00	08/21/2003	3,970.00	11/18/2006	41,898.64	mg/l
Carbonate as CaCO3	170	33,400.00	08/05/1999	130.00	11/18/2006	3,886.81	mg/l
Total Alkalinity as CaCO3	170	68,800.00	08/21/2003	4,100.00	11/18/2006	45,510.65	mg/l
Bromide	21	3.00	05/18/2006	2.70	11/05/2019	2.85	mg/l
Cation-Anion Balance	169	80.00	11/18/2006	-67.20	09/15/2007	-1.99	%
Sum of Anions	169	1,430.00	05/13/2020	105.00	11/18/2006	980.39	meq/l
Sum of Cations	169	1,320.00	01/15/2019	193.00	09/15/2007	945.90	meq/l
Chemical Oxygen Demand	20	1,100.00	07/29/2009	100.00	09/14/2000	283.35	mg/l
Chloride	169	19,400.00	04/05/2021	105.00	04/11/2006	2,453.58	mg/l
Conductivity, Lab	170	75,100.00	05/13/2020	5,220.00	02/08/2000	51,875.33	µmhos
Fluoride	169	123.00	03/25/1998	8.60	04/11/2006	50.02	mg/l
Hardness as CaCO3	169	150.00	11/16/2007	1.00	03/25/1998	36.14	mg/l
Nitrate as N, dissolved	21	0.96	09/25/2002	0.00	09/24/2003	0.10	mg/l
Nitrate/Nitrite as N,	21	1.65	09/25/2002	0.00	09/24/2003	0.16	mg/l
Nitrite as N, dissolved	21	0.87	09/25/2002	0.00	09/24/2003	0.11	mg/l
Nitrogen, Ammonia	20	20.30	05/13/2020	3.75	09/14/2000	12.56	mg/l
Nitrogen, Organic	20	17.00	05/03/2021	1.90	09/24/2003	7.73	mg/l
Nitrogen, Total Kjeldahl	20	31.90	05/03/2021	1.70	09/14/2000	16.21	mg/l
pH, lab	170	9.10	10/14/2008	8.20	06/09/1999	8.50	units
Phosphate, total	20	77.50	05/18/2006	1.55	10/14/2008	35.71	mg/l
Phosphorus, total	20	18.80	09/15/2007	3.00	10/14/2008	11.16	mg/l
SAR in Water	135	7,600.00	03/25/1998	801.00	11/16/2007	2,285.15	none
Sulfate	169	1,040.00	12/16/2002	10.00	09/27/2005	126.60	mg/l
Sulfide	20	18.60	11/05/2019	0.05	08/25/2005	2.88	mg/l
Total Dissolved Solids	169	71,400.00	05/13/2020	20,800.00	12/08/2000	52,023.81	mg/l
Conductivity, Field	173	82,870.00	12/09/2019	26,900.00	12/01/2008	54,643.29	µmhos
pH, Field	172	12.60	01/11/2021	7.00	03/04/2015	8.50	units
Temperature (°C), Field	127	23.77	06/15/2011	6.30	03/04/2013	12.99	(°C)
Water Level, Field	192	604.20	09/20/2021	471.20	09/03/2020	551.49	Ft.
Parameters	No. of	High	Date	Low	Date	Average	Units
Metals	Samples	-				-	
Metals Aluminum, dissolved	Samples 21	1.60	09/23/2010	0.58	03/14/2008	1.09	mg/l
Metals Aluminum, dissolved Arsenic, dissolved	<b>Samples</b> 21 21	1.60 U	09/23/2010 09/30/1997	0.58 U	03/14/2008 09/22/1999	1.09 U	mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved	Samples           21           21           21           21	1.60 U 3.85	09/23/2010 09/30/1997 03/14/2008	0.58 U 0.06	03/14/2008 09/22/1999 10/14/2008	1.09 U 1.78	mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved	Samples           21           21           21           21           21           21	1.60 U 3.85 U	09/23/2010 09/30/1997 03/14/2008 09/30/1997	0.58 U 0.06 U	03/14/2008 09/22/1999 10/14/2008 09/22/1999	1.09 U 1.78 U	mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved	Samples           21           21           21           21           168	1.60 U 3.85 U 43.40	09/23/2010 09/30/1997 03/14/2008 09/30/1997 01/28/2003	0.58 U 0.06 U 6.60	03/14/2008 09/22/1999 10/14/2008 09/22/1999 09/15/2007	1.09 U 1.78 U 31.64	mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved	Samples 21 21 21 21 21 168 21	1.60 U 3.85 U 43.40 U	09/23/2010 09/30/1997 03/14/2008 09/30/1997 01/28/2003 09/30/1997	0.58 U 0.06 U 6.60 U	03/14/2008 09/22/1999 10/14/2008 09/22/1999 09/15/2007 09/22/1999	1.09 U 1.78 U 31.64 U	mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved	Samples 21 21 21 21 168 21 168	1.60 U 3.85 U 43.40 U 60.00	09/23/2010 09/30/1997 03/14/2008 09/30/1997 01/28/2003 09/30/1997 11/16/2007	0.58 U 0.06 U 6.60 U 0.40	03/14/2008 09/22/1999 10/14/2008 09/22/1999 09/15/2007 09/22/1999 08/12/2004	1.09 U 1.78 U 31.64 U 13.09	mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved	Samples 21 21 21 21 168 21 168 21	1.60 U 3.85 U 43.40 U 60.00 0.40	09/23/2010 09/30/1997 03/14/2008 09/30/1997 01/28/2003 09/30/1997 11/16/2007 09/23/2010	0.58 U 0.06 U 6.60 U 0.40 0.40	03/14/2008 09/22/1999 10/14/2008 09/22/1999 09/15/2007 09/22/1999 08/12/2004 09/23/2010	1.09 U 1.78 U 31.64 U 13.09 U	mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved	Samples 21 21 21 168 21 168 21 168 21 21 21	1.60 U 3.85 U 43.40 U 60.00 0.40 0.60	09/23/2010 09/30/1997 03/14/2008 09/30/1997 01/28/2003 09/30/1997 11/16/2007 09/23/2010 09/14/2004	0.58 U 0.06 U 6.60 U 0.40 0.40 0.30	03/14/2008 09/22/1999 10/14/2008 09/22/1999 09/15/2007 09/22/1999 08/12/2004 09/23/2010 09/02/1998	1.09 U 1.78 U 31.64 U 13.09 U U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved	Samples 21 21 21 168 21 168 21 168 21 21 21 21	1.60 U 3.85 U 43.40 U 60.00 0.40 0.60 1.20	09/23/2010 09/30/1997 03/14/2008 09/30/1997 01/28/2003 09/30/1997 11/16/2007 09/23/2010 09/14/2004 09/02/1998	0.58 U 0.06 U 6.60 U 0.40 0.40 0.30 0.24	03/14/2008 09/22/1999 10/14/2008 09/22/1999 09/15/2007 09/22/1999 08/12/2004 09/23/2010 09/02/1998 10/14/2008	1.09 U 1.78 U 31.64 U 13.09 U U U	mq/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved	Samples 21 21 21 168 21 168 21 168 21 21 21 21 21 21	1.60 U 3.85 U 43.40 U 60.00 0.40 0.60 1.20 0.28	09/23/2010 09/30/1997 03/14/2008 09/30/1997 01/28/2003 09/30/1997 11/16/2007 09/23/2010 09/14/2004 09/02/1998 03/14/2008	0.58 U 0.06 U 6.60 U 0.40 0.40 0.30 0.24 U	03/14/2008 09/22/1999 10/14/2008 09/22/1999 09/15/2007 09/22/1999 08/12/2004 09/23/2010 09/02/1998 10/14/2008 09/02/1998	1.09 U 1.78 U 31.64 U 13.09 U U U U	mq/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved	Samples           21           21           21           21           168           21           168           21           21           21           21           21           21           21           21           21           21           21           21           21           21           21           21           21	1.60 U 3.85 U 43.40 U 60.00 0.40 0.60 1.20 0.28 12.70	09/23/2010 09/30/1997 03/14/2008 09/30/1997 01/28/2003 09/30/1997 11/16/2007 09/23/2010 09/14/2004 09/02/1998 03/14/2008	0.58 U 0.06 U 6.60 U 0.40 0.40 0.30 0.24 U 1.00	03/14/2008 09/22/1999 10/14/2008 09/22/1999 09/15/2007 09/22/1999 08/12/2004 09/23/2010 09/02/1998 10/14/2008 09/02/1998 09/15/2007	1.09 U 1.78 U 31.64 U 13.09 U U U U U 4.62	mq/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved	Samples           21           21           21           21           168           21           168           21           21           21           168           21	1.60 U 3.85 U 43.40 U 60.00 0.40 0.60 1.20 0.28 12.70 10.00	09/23/2010 09/30/1997 03/14/2008 09/30/1997 01/28/2003 09/30/1997 11/16/2007 09/23/2010 09/14/2004 09/02/1998 03/14/2008 03/14/2008 09/08/2015	0.58 U 0.06 U 6.60 U 0.40 0.40 0.40 0.30 0.24 U 1.00 0.30	03/14/2008 09/22/1999 10/14/2008 09/22/1999 09/15/2007 09/22/1999 08/12/2004 09/23/2010 09/02/1998 10/14/2008 09/02/1998 09/15/2007 03/14/2008	1.09 U 1.78 U 31.64 U 13.09 U U U U U U U 4.62 5.56	mq/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesied, dissolved	Samples           21           21           21           21           168           21           168           21           21           21           168           21           21           21           21           21           21           21           21           21           21           21           21           21           21           21	1.60 U 3.85 U 43.40 U 60.00 0.40 0.60 1.20 0.28 12.70 10.00 0.01	09/23/2010 09/30/1997 03/14/2008 09/30/1997 01/28/2003 09/30/1997 11/16/2007 09/23/2010 09/14/2004 09/02/1998 03/14/2008 03/14/2008 09/08/2015 10/14/2008	0.58 U 0.06 U 6.60 U 0.40 0.40 0.40 0.30 0.24 U 1.00 0.30 U	03/14/2008 09/22/1999 10/14/2008 09/22/1999 09/15/2007 09/22/1999 08/12/2004 09/23/2010 09/02/1998 10/14/2008 09/02/1998 09/15/2007 03/14/2008 09/22/1999	1.09 U 1.78 U 31.64 U 13.09 U U U U U U 4.62 5.56 U	mq/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Mercury, dissolved	Samples 21 21 21 21 168 21 168 21 21 21 21 21 21 21 21 21 21	1.60 U 3.85 U 43.40 U 60.00 0.40 0.60 1.20 0.28 12.70 10.00 0.01 U	09/23/2010 09/30/1997 03/14/2008 09/30/1997 01/28/2003 09/30/1997 11/16/2007 09/23/2010 09/14/2004 09/02/1998 03/14/2008 03/14/2008 09/08/2015 10/14/2008 09/30/1997	0.58 U 0.06 U 6.60 U 0.40 0.40 0.30 0.24 U 1.00 0.30 U U U	03/14/2008 09/22/1999 10/14/2008 09/22/1999 09/15/2007 09/22/1999 08/12/2004 09/23/2010 09/02/1998 10/14/2008 09/02/1998 09/15/2007 03/14/2008 09/22/1999 09/22/1999	1.09 U 1.78 U 31.64 U 13.09 U U U U U U 4.62 5.56 U U	mq/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved	Samples 21 21 21 21 168 21 168 21 21 21 21 21 168 21 21 21 21 21 21 21 21 21 21	1.60 U 3.85 U 43.40 U 60.00 0.40 0.60 1.20 0.28 12.70 10.00 0.01 U 0.50	09/23/2010 09/30/1997 03/14/2008 09/30/1997 01/28/2003 09/30/1997 11/16/2007 09/23/2010 09/14/2004 09/02/1998 03/14/2008 03/14/2008 09/08/2015 10/14/2008 09/30/1997 09/23/2010	0.58 U 0.06 U 6.60 U 0.40 0.40 0.30 0.24 U 1.00 0.30 U U U 0.29	03/14/2008 09/22/1999 10/14/2008 09/22/1999 09/15/2007 09/22/1999 08/12/2004 09/23/2010 09/02/1998 10/14/2008 09/02/1998 09/15/2007 03/14/2008 09/22/1999 09/22/1999	1.09 U 1.78 U 31.64 U 13.09 U U U U U U 4.62 5.56 U U U U	mq/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved	Samples 21 21 21 168 21 168 21 168 21 21 21 21 21 21 21 21 21 21	1.60 U 3.85 U 43.40 U 60.00 0.40 0.60 1.20 0.28 12.70 10.00 0.01 U 0.50 0.23	09/23/2010 09/30/1997 03/14/2008 09/30/1997 01/28/2003 09/30/1997 11/16/2007 09/23/2010 09/14/2004 09/02/1998 03/14/2008 03/14/2008 09/08/2015 10/14/2008 09/30/1997 09/23/2010 03/14/2008	0.58 U 0.06 U 6.60 U 0.40 0.40 0.40 0.30 0.24 U 1.00 0.30 U U U 0.29 U	03/14/2008 09/22/1999 10/14/2008 09/22/1999 09/15/2007 09/22/1999 08/12/2004 09/23/2010 09/02/1998 10/14/2008 09/02/1998 09/15/2007 03/14/2008 09/22/1999 03/14/2008 09/22/1999	1.09 U 1.78 U 31.64 U 13.09 U U U U U U U 4.62 5.56 U U U U U U U U	mq/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Potassium, dissolved	Samples 21 21 21 168 21 168 21 168 21 21 21 21 21 21 21 21 21 21	1.60 U 3.85 U 43.40 U 60.00 0.40 0.60 1.20 0.28 12.70 10.00 0.01 U 0.50 0.23 340.00	09/23/2010 09/30/1997 03/14/2008 09/30/1997 01/28/2003 09/30/1997 11/16/2007 09/23/2010 09/14/2004 09/02/1998 03/14/2008 03/14/2008 09/08/2015 10/14/2008 09/30/1997 09/23/2010 03/14/2008 10/10/2018	0.58 U 0.06 U 6.60 U 0.40 0.40 0.40 0.30 0.24 U 1.00 0.30 U U 0.29 U U 11.40	03/14/2008 09/22/1999 10/14/2008 09/22/1999 09/15/2007 09/22/1999 08/12/2004 09/23/2010 09/02/1998 10/14/2008 09/02/1998 09/15/2007 03/14/2008 09/22/1999 03/14/2008 09/22/1999 10/14/2008	1.09 U 1.78 U 31.64 U 13.09 U U U U U U 4.62 5.56 U U U U U 5.56 U U U U 51.77	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved	Samples 21 21 21 168 21 168 21 21 21 21 21 21 21 21 21 21	1.60 U 3.85 U 43.40 U 60.00 0.40 0.60 1.20 0.28 12.70 10.00 0.01 U 0.50 0.23 340.00 0.002	09/23/2010 09/30/1997 03/14/2008 09/30/1997 01/28/2003 09/30/1997 11/16/2007 09/23/2010 09/14/2004 09/02/1998 03/14/2008 03/14/2008 09/08/2015 10/14/2008 09/30/1997 09/23/2010 03/14/2008 10/10/2018 09/30/1997	0.58 U 0.06 U 6.60 U 0.40 0.40 0.40 0.30 0.24 U 1.00 0.30 U U 0.29 U U 11.40 U	03/14/2008 09/22/1999 10/14/2008 09/22/1999 09/15/2007 09/22/1999 08/12/2004 09/23/2010 09/02/1998 10/14/2008 09/02/1998 09/15/2007 03/14/2008 09/22/1999 03/14/2008 09/22/1999 10/14/2008 09/22/1999	1.09 U 1.78 U 31.64 U 13.09 U U U U U U U U U U U U U U U 51.77 U	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnesium, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Silica, dissolved	Samples           21           21           21           21           168           21           168           21           168           21           168           21           168	1.60 U 3.85 U 43.40 U 60.00 0.40 0.60 1.20 0.28 12.70 10.00 0.01 U 0.50 0.23 340.00 0.002 50.00	09/23/2010 09/30/1997 03/14/2008 09/30/1997 01/28/2003 09/30/1997 11/16/2007 09/23/2010 09/14/2004 09/02/1998 03/14/2008 03/14/2008 09/08/2015 10/14/2008 09/30/1997 09/23/2010 03/14/2008 10/10/2018 09/30/1997 06/02/1998	0.58 U 0.06 U 6.60 U 0.40 0.40 0.40 0.30 0.24 U 1.00 0.30 U 1.00 0.30 U 1.00 0.29 U 11.40 U 3.60	03/14/2008 09/22/1999 10/14/2008 09/22/1999 09/15/2007 09/22/1999 08/12/2004 09/23/2010 09/02/1998 10/14/2008 09/02/1998 09/15/2007 03/14/2008 09/22/1999 03/14/2008 09/22/1999 10/14/2008 09/22/1999 00/22/1999 00/22/1999	1.09 U 1.78 U 31.64 U 13.09 U U U U U 4.62 5.56 U U U U U 51.77 U 26.59	mq/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Sodium, dissolved	Samples           21           21           21           21           168           21           168           21           168           21           168           21           168           21           168           2168	1.60 U 3.85 U 43.40 U 60.00 0.40 0.60 1.20 0.28 12.70 10.00 0.01 U 0.50 0.23 340.00 0.002 50.00 29,800.00	09/23/2010 09/30/1997 03/14/2008 09/30/1997 01/28/2003 09/30/1997 11/16/2007 09/23/2010 09/14/2004 09/02/1998 03/14/2008 03/14/2008 09/08/2015 10/14/2008 09/30/1997 09/23/2010 03/14/2008 10/10/2018 09/30/1997 06/02/1998 04/19/2001	0.58 U 0.06 U 6.60 U 0.40 0.40 0.40 0.30 0.24 U 1.00 0.30 U 1.00 0.30 U 1.00 0.30 U 1.00 0.30 U 1.00 0.30 U 1.00 0.30 0 4,370.00	03/14/2008 09/22/1999 10/14/2008 09/22/1999 09/15/2007 09/22/1999 08/12/2004 09/23/2010 09/02/1998 10/14/2008 09/02/1998 09/15/2007 03/14/2008 09/22/1999 03/14/2008 09/22/1999 10/14/2008 09/22/1999 10/14/2008 09/22/1999	1.09 U 1.78 U 31.64 U 13.09 U U U U U U U U 4.62 5.56 U U U U 51.77 U 26.59 21,507.56	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Manganese, dissolved Manganese, dissolved Manganese, dissolved Nickel, dissolved Potassium, dissolved Selenium, dissolved Sodium, dissolved Strontium, dissolved	Samples           21           21           21           21           168           21           168           21           168           21           168           168           168           168	1.60 U 3.85 U 43.40 U 60.00 0.40 0.60 1.20 0.28 12.70 10.00 0.01 U 0.50 0.23 340.00 0.002 50.00 29,800.00 0.60	09/23/2010 09/30/1997 03/14/2008 09/30/1997 01/28/2003 09/30/1997 11/16/2007 09/23/2010 09/14/2004 09/02/1998 03/14/2008 03/14/2008 09/08/2015 10/14/2008 09/30/1997 09/23/2010 03/14/2008 10/10/2018 09/30/1997 06/02/1998 04/19/2001 08/04/1997	0.58 U 0.06 U 6.60 U 0.40 0.40 0.30 0.24 U 1.00 0.30 U 1.00 0.30 U U 0.29 U U 11.40 U 3.60 4,370.00 0.07	03/14/2008 09/22/1999 10/14/2008 09/22/1999 09/15/2007 09/22/1999 08/12/2004 09/23/2010 09/02/1998 10/14/2008 09/02/1998 09/15/2007 03/14/2008 09/22/1999 03/14/2008 09/22/1999 10/14/2008 09/22/1999 04/11/2006 09/15/2007 10/14/2008	1.09 U 1.78 U 31.64 U 13.09 U U U U U U U U 4.62 5.56 U U U U 51.77 U 26.59 21,507.56 0.27	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Metals Aluminum, dissolved Arsenic, dissolved Barium, dissolved Beryllium, dissolved Boron, dissolved Cadmium, dissolved Calcium, dissolved Chromium, dissolved Copper, dissolved Iron, dissolved Lead, dissolved Lithium, dissolved Magnesium, dissolved Magnese, dissolved Manganese, dissolved Molybdenum, dissolved Nickel, dissolved Selenium, dissolved Sodium, dissolved	Samples           21           21           21           21           168           21           168           21           168           21           168           21           168           21           168           2168	1.60 U 3.85 U 43.40 U 60.00 0.40 0.60 1.20 0.28 12.70 10.00 0.01 U 0.50 0.23 340.00 0.002 50.00 29,800.00	09/23/2010 09/30/1997 03/14/2008 09/30/1997 01/28/2003 09/30/1997 11/16/2007 09/23/2010 09/14/2004 09/02/1998 03/14/2008 03/14/2008 09/08/2015 10/14/2008 09/30/1997 09/23/2010 03/14/2008 10/10/2018 09/30/1997 06/02/1998 04/19/2001	0.58 U 0.06 U 6.60 U 0.40 0.40 0.40 0.30 0.24 U 1.00 0.30 U 1.00 0.30 U 1.00 0.30 U 1.00 0.30 U 1.00 0.30 U 1.00 0.30 0 4,370.00	03/14/2008 09/22/1999 10/14/2008 09/22/1999 09/15/2007 09/22/1999 08/12/2004 09/23/2010 09/02/1998 10/14/2008 09/02/1998 09/15/2007 03/14/2008 09/22/1999 03/14/2008 09/22/1999 10/14/2008 09/22/1999 10/14/2008 09/22/1999	1.09 U 1.78 U 31.64 U 13.09 U U U U U U U U 4.62 5.56 U U U U 51.77 U 26.59 21,507.56	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

 Table 33: DS-2 Annual Dissolution Surface Aquifer (P&A'd 2022)

DAUB & ASSOCIATES, INC. 201 34 The Contract of Contraction



Parameters	No. of	Ц	gh	Date	Low	Date	Averag	Units
Wet Chemistry	Samples		gn	Dale	LOW	Dale	-	Units
Bicarbonate as	217	12	000	05/24/200	17,40	11/27/200	<b>e</b> 27,154	mg/l
	217		900	05/03/200	419	06/26/200	3,935	mg/l
Carbonate as Total Alkalinity as								
	217		100	03/14/200	21,90	06/11/201	30,915	mg/l
Bromide	32		00	05/03/200	0.70	08/02/200	2.18	mg/l
Cation-Anion	217		.50	10/28/200	-93.80	04/10/201	-4.67	%
Sum of Anions	217		10.00	04/07/202	511.0	04/29/200	781.50	meq/l
Sum of Cations	217		30.00	03/14/200	20.70	04/10/201	727.33	meq/l
Chemical Oxygen	32		00.00	07/30/200	140.0	08/21/200	405.66	mg/l
Chloride	217		00.00	12/19/201	39.00	05/24/200	5,707.04	mg/l
Conductivity, Lab	217		800	02/13/201	27,20	09/28/200	47,376	µmho
Fluoride	217	329	9.00	11/07/201	2.80	05/24/200	61.43	mg/l
Hardness as	217	49	.00	03/08/201	1.00	01/28/200	15.08	mg/l
Nitrate as N.	32	0.	10	08/12/200	0.02	09/28/200	0.05	mg/l
Nitrate/Nitrite as	32	0.	14	11/10/201	0.02	09/28/200	0.05	mg/l
Nitrite as N,	32		05	11/10/201	0.01	07/11/201	0.03	mg/l
Nitrogen,	32		.20	12/19/201	4.84	03/14/202	13.02	mg/l
Nitrogen, Organic	32		.00	08/22/200	0.80	09/30/200	9.02	mg/l
Nitrogen, Total	32		.00	12/19/201	3.50	09/23/201	19.80	mg/l
pH, lab	217		20	04/10/200	7.90	10/28/200	8.61	units
Phosphate, total	32		5.00	07/30/200	3.10		33.12	
						08/16/201		mg/l
Phosphorus, total	32		3.00	09/30/200	3.20	06/26/200	14.26	mg/l
SAR in Water	151		450	05/18/200	U	12/09/201	2,481	none
Sulfate	217		360	09/23/201	U	09/02/201	206	mg/l
Sulfide	32		.10	06/10/202	0.04	08/25/200	3.86	mg/l
Total Dissolved	217		500	03/14/200	18,50	05/29/200	41,549	mg/l
Conductivity,	239		810	02/13/201	30,60	04/29/200	50,373	µmho
pH, Field	238	9.	91	06/30/200	7.00	03/09/201	8.43	units
	Temperatur	238	24.40	07/05/201	5.30	02/09/201	12.84	(°C)
Water Level,	243	547.30	08/02/202	2 484.	.10	02/04/201	521.75	Ft.
						_		
Parameters	No. of	High	Date	Lo	W	Date	Averag	Units
Metals	Samples						е	
Aluminum,	33	79.90	08/12/200	0.4	-0	03/14/200	17.00	mg/l
Arsenic,	33	0.02	06/10/202			12/04/201	0.02	mg/l
Barium, dissolved	33	3.32	08/25/200	0.1	9	08/19/200	1.83	mg/l
Beryllium,	33	U	05/04/202	2 U		08/22/200	U	mg/l
Boron, dissolved	218	74.70	02/13/201		9	05/29/200	19.28	mg/l
Cadmium,	33	U	05/04/202			08/22/200	U	mg/l
Calcium,	218	14.00	07/10/201			05/29/200	4.07	mg/l
Chromium,	33	0.01	05/18/200			05/18/200	U	mg/l
Copper, dissolved	33	1.20	08/16/201	•		08/12/200	0.85	mg/l
Iron, dissolved	33	3.70	09/15/200			05/18/200	1.49	
								mg/l
Lead, dissolved	33	1.40	08/22/200			03/14/200	0.81	mg/l
Lithium, dissolved	33	8.48	03/14/200			12/19/201	3.35	mg/l
Magnesium,	218	10.00	01/08/200			09/02/201	3.99	mg/l
Manganese,	33	U	05/04/202			08/22/200	U	mg/l
Mercury,	33	U	05/04/202			08/22/200	U	mg/l
Molybdenum,	33	0.70	08/19/200			08/18/201	0.45	mg/l
	33	0.20	09/23/201			05/18/200	0.13	mg/l
Nickel, dissolved				0.0	<u> </u>	11/21/200	36.65	mg/l
Nickel, dissolved Potassium,	218	150.00	02/13/201	0.0		11/21/200	30.05	mg/i
		150.00				07/12/200	0.0058	
Potassium, Selenium,	218 33	150.00 0.008	08/22/200	0.00	04	07/12/200	0.0058	mg/l
Potassium, Selenium, Silica, dissolved	218 33 218	150.00 0.008 79.00	08/22/200 04/11/200	0.00	04 10	07/12/200 05/29/200	0.0058 25.88	mg/l mg/l
Potassium, Selenium, Silica, dissolved Sodium,	218 33 218 218	150.00 0.008 79.00 39,200	08/22/200 04/11/200 03/14/200	) 0.00 ) 8.9 ) 45	04 10 0	07/12/200 05/29/200 04/10/201	0.0058 25.88 16,614	mg/l mg/l mg/l
Potassium, Selenium, Silica, dissolved Sodium, Strontium,	218 33 218 218 218 218	150.00 0.008 79.00 39,200 0.70	08/22/200 04/11/200 03/14/200 02/21/200	0         0.00           0         8.9           0         45           0         0.00	04 00 0 04	07/12/200 05/29/200 04/10/201 05/29/200	0.0058 25.88 16,614 0.22	mg/l mg/l mg/l mg/l
Potassium, Selenium, Silica, dissolved Sodium,	218 33 218 218	150.00 0.008 79.00 39,200	08/22/200 04/11/200 03/14/200	$\begin{array}{c cccc} 0 & 0.00 \\ \hline 0 & 8.9 \\ 0 & 45 \\ 0 & 0.0 \\ \hline 0 & 0.0 \\ \hline 0 & 0.0 \end{array}$	04 00 04 04	07/12/200 05/29/200 04/10/201	0.0058 25.88 16,614	mg/l mg/l mg/l

#### Table 34: DS-3 Annual Dissolution Surface Aquifer

DAUB & ASSOCIATES, INC. 201 Harris Contraction States



Parameters Wet Chemistry	No. of Samples	H	gh	Date	Low	Date	Averag	Units
	78	0.1	560	07/06/202	5,770	12/07/201	<b>e</b> 7,133	mg/l
Bicarbonate as	78		060	03/07/202	2,110	07/06/202	3,710	mg/l
Carbonate as Total Alkalinity as	78		400	03/05/202	9,650	08/09/202	10,841	mg/l
Bromide	11	1	400 U	03/05/202	<u>9,650</u> U	04/05/201	U U	mg/l
Cation-Anion	77		60	02/11/202	-13.30	07/06/202	-4.19	% %
Sum of Anions	77		2.00	03/05/202	219.0	11/03/202	240.14	meq/l
Sum of Cations	77		5.00	02/11/202	188.0	12/01/202	220.89	
Chemical Oxygen	11		7.00	12/09/201	44.00	04/05/201	80.50	meq/l mg/l
Chloride	77		330	12/09/201	448		702	
Conductivity, Lab	78			12/09/201		11/03/202		mg/l
			800		14,90	12/01/202	16,964	µmho ma/l
Fluoride	77		.00	04/07/202	26.80	09/08/201	37.10	mg/l
Hardness as	77		.00	09/22/201	3.00	01/03/201	6.64	mg/l
Nitrate as N,	11		JH	04/06/202	UH	04/05/201	UH	mg/l
Nitrate/Nitrite as	11		IH	04/06/202	UH	04/05/201	UH	mg/l
Nitrite as N,	11		ΙH	04/06/202	UH	04/05/201	UH	mg/l
Nitrogen,	11		39	05/13/202	0.58	03/14/202	3.52	mg/l
Nitrogen, Organic	11		00	03/14/202	0.80	07/11/201	3.40	mg/l
Nitrogen, Total	11		30	05/07/201	4.70	07/11/201	6.84	mg/l
pH, lab	78		50	03/01/201	9.00	08/10/202	9.26	units
Phosphate, total	11		00	09/27/201	0.71	12/09/201	4.89	mg/l
Phosphorus, total	11	2.	20	09/27/201	0.23	12/09/201	1.58	mg/l
SAR in Water	54	1,6	600	02/11/202	410.0	09/22/201	1,042	none
Sulfate	77		70	12/09/201	20.60	09/04/202	86	mg/l
Sulfide	11		00	07/11/201	0.30	04/05/201	1.74	mg/l
Total Dissolved	77		100	12/09/201	11,20	12/01/202	12,482	mg/l
Conductivity,	73		680	05/07/201	13,82	05/01/202	16,851	µmho
pH, Field	73		70	08/09/201	7.30	12/10/201	8.97	units
	Temperatur	73	16.70	09/06/201	8.00	01/14/202	12.07	(°C)
Water Level,	77	550.40	09/08/202			10/06/202	522.95	Ft.
		000.40	00/00/202		.+0	10/00/202	022.00	1.
Parameters	No. of	High	Date	Lo	w	Date	Averag	Units
Metals	Samples	ingn	Dute			Duic	e	Onits
Aluminum,	11	U	05/03/202	2 U	1	04/05/201	U	mg/l
Arsenic,	11	0.01	12/09/201			12/09/201	0.01	mg/l
Barium, dissolved	11	0.46	10/04/201			04/05/201	0.01	mg/l
Beryllium,	11	0.40	10/04/201			10/04/201	0.27	
	76		04/06/202					mg/l
Boron, dissolved		8.54				10/04/201	7.59	mg/l
Cadmium,	11	U 7.04	05/03/202			04/05/201	U 1.00	mg/l
	76	7.34	06/07/202			03/25/201	1.98	mg/l
Chromium,	11	U	05/03/202			04/05/201	U	mg/l
Copper, dissolved	11	U	05/03/202			04/05/201	U	mg/l
Iron, dissolved	11	0.60	12/09/201			09/22/201	0.38	mg/l
Lead, dissolved	11	0.30	05/07/201			05/07/201	0.30	mg/l
Lithium, dissolved	11	2.50	03/14/202			09/27/201	2.16	mg/l
Magnesium,	76	4.00	03/25/201			09/08/201	2.71	mg/l
Manganese,	11	U	05/03/202			04/05/201	U	mg/l
Mercury,	11	U	05/03/202			04/05/201	U	mg/l
Molybdenum,	11	U	05/03/202			04/05/201	U	mg/l
Nickel, dissolved	11	U	05/03/202	2 U		04/05/201	U	mg/l
Potassium,	76	113.00	12/09/201		20	12/01/202	72.34	mg/l
	11	U	09/22/201			09/22/201	U	mg/l
Selenium.					0	01/27/201	26.24	mg/l
Selenium, Silica, dissolved		34.00	07/11/201	/ [	10		20.24	
Silica, dissolved	76	34.00 5.750	07/11/201					
Silica, dissolved Sodium,	76 76	5,750	02/11/202	2 4,24	40	12/01/202	4,974	mg/l
Silica, dissolved Sodium, Strontium,	76 76 76	5,750 0.48	02/11/202 12/07/202	2 4,24 2 0.0	40 )5	12/01/202 12/29/201	4,974 0.19	mg/l mg/l
Silica, dissolved Sodium,	76 76	5,750	02/11/202	2 4,24 2 0.0 2 U	40 05	12/01/202	4,974	mg/l

#### Table 35: DS-6 Annual Dissolution Surface Aquifer

DAUB & ASSOCIATES, INC. 21. Frank Contraction



Parameters	No. of		112 1	D - 1 -	1	Dett		11-14
Wet Chemistry	Samples	5	High	Date	Low	Date	Average	Units
Bicarbonate as	84		33,500	04/08/2019	9,000	12/07/2020	24,166	mg/l
Carbonate as	84		16,600	08/02/2016	63	12/07/2020	4,739	mg/l
Total Alkalinity as	84		41,300	07/07/2016	9,060	12/07/2020	28,791	mg/l
Bromide	10		U	05/04/2021	U	12/30/2014	U	mg/l
Cation-Anion	84		21.30	03/05/2020	-15.70	10/06/2020	-2.02	%
Sum of Anions	84		3,360.00	12/17/2014	302.00	12/07/2020	1,252.25	meq/l
Sum of Cations	84		3,230.00	12/17/2014	293.00	03/15/2022	1,190.51	meq/l
Chemical Oxygen	10		3,630.00	11/05/2015	344.00	05/07/2019	1,693.14	mg/l
Chloride	84		96,000	12/30/2014	3,850	10/12/2021	24,016	mg/l
Conductivity,	84		207,000	12/17/2014	24,000	11/02/2020	73,951	µmhos
Fluoride	84		106.00	12/10/2019	38.50	10/06/2020	64.16	mg/l
Hardness as	84		82.40	12/16/2015	U	12/30/2014	28.88	mg/l
Nitrate as N,	10		0.03	05/07/2020	UH	12/30/2014	UH	mg/l
Nitrate/Nitrite	10		0.03	05/07/2020	UH	12/30/2014	UH	mg/l
Nitrite as N,	10		UH	05/04/2021	UH	12/30/2014	UH	mg/l
Nitrogen,	10		40.40	12/17/2014	3.33	05/04/2021	14.06	mg/l
Nitrogen,	10		7.00	05/07/2019	3.00	05/04/2021	4.58	mg/l
Nitrogen, Total	10		33.00	12/30/2014	1.10	11/05/2015	11.81	mg/l
pH, lab	84		9.10	05/06/2015	8.30	04/08/2020	8.61	units
Phosphate,	10		71.00	11/05/2015	6.10	05/04/2021	34.35	mg/l
Phosphorus,	10		23.00	11/05/2015	1.97	05/04/2021	11.11	mg/l
SAR in Water	30		7,600	06/08/2016	670.00	12/07/2021	2,490	none
Sulfate	84		480	12/30/2014	110.00	07/11/2017	350	mg/l
Sulfide	10		4.80	05/07/2019	1.30	12/17/2014	2.60	mg/l
Total Dissolved	84		189,676	12/17/2014	16,600	11/05/2021	68,709	mg/l
Conductivity,	82		186,700	12/17/2014	23,190	09/07/2021	74,709	µmhos
pH, Field	82		9.20	03/10/2016	7.10	12/17/2014	8.29	units
	Temperature	82	17.60	07/08/2021	7.20	02/09/2021	12.89	(°C)
Water Level,								
	00	040 40	40/40/004	4 470	70	44/00/0040	F00.00	<b>F</b> 4
Field	86	643.10	12/12/2014	478.	76	11/09/2016	503.93	Ft.
	86	643.10	12/12/2014	4 478.	76	11/09/2016	503.93	Ft.
Field Parameters	86 No. of							
Field		High	Date	Lov		Date	503.93 Average	Ft. Units
Field Parameters	No. of Samples 10	High U	<b>Date</b>	Lov 4 U		<b>Date</b> 05/04/2021	Average	Units mg/l
Field Parameters Metals Aluminum, Arsenic,	No. of Samples 10 10	High U U	Date 12/30/2014 12/30/2014	Lov 4 U 4 U	V	Date 05/04/2021 05/04/2021	Average	Units mg/l mg/l
Field Parameters Metals Aluminum,	<b>No. of</b> <u>Samples</u> 10 10 10	High U	Date 12/30/2014 12/30/2014 07/11/2017	Lov 4 U 4 U 7 0.4	V	Date 05/04/2021 05/04/2021 11/05/2015	Average	Units mg/l
Field Parameters Metals Aluminum, Arsenic,	No. of Samples 10 10 10 10 10	High U U	Date 12/30/2014 12/30/2014 07/11/2017 12/30/2014	Lov 4 U 4 U 7 0.4 4 U	<b>v</b>	Date 05/04/2021 05/04/2021	Average U U 1.09 U	Units mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium,	<b>No. of</b> <u>Samples</u> 10 10 10	High U U	Date 12/30/2014 12/30/2014 07/11/2017	Lov 4 U 4 U 7 0.4 4 U	<b>v</b>	Date 05/04/2021 05/04/2021 11/05/2015	Average U U 1.09	Units mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium,	No. of Samples 10 10 10 10 10	High U 1.90 U 66.00 U	Date 12/30/2014 12/30/2014 07/11/2017 12/30/2014 09/09/2015 12/30/2014	Lov 4 U 4 U 7 0.4 4 U 5 7.1 4 U	<b>v</b> 0 0	Date 05/04/2021 05/04/2021 11/05/2015 05/04/2021	Average U U 1.09 U	Units mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron,	No. of Samples 10 10 10 10 10 84 10 84	High U U 1.90 U 66.00	Date 12/30/2014 12/30/2014 07/11/2017 12/30/2014 09/09/2015	Lov 4 U 4 U 7 0.4 4 U 5 7.1 4 U	<b>v</b> 0 0	Date 05/04/2021 05/04/2021 11/05/2015 05/04/2021 01/09/2018	Average U U 1.09 U 23.71	Units mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium,	No. of Samples 10 10 10 10 84 10 84 10 84 10	High U 1.90 U 66.00 U	Date 12/30/2014 12/30/2014 07/11/2017 12/30/2014 09/09/2015 12/30/2014	Lov 4 U 4 U 7 0.4 4 U 5 7.1 4 U 5 0.0 4 U	<b>v</b> 0 0	Date 05/04/2021 05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021	Average U U 1.09 U 23.71 U	Units mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium,	No. of Samples 10 10 10 10 10 84 10 84	High U U 1.90 U 66.00 U 30.00 U U	Date 12/30/2014 12/30/2014 07/11/2017 12/30/2014 09/09/2015 12/30/2014 05/06/2015	Lov 4 U 4 U 7 0.4 4 U 5 7.1 4 U 5 0.0 4 U	<b>v</b> 0 0	Date 05/04/2021 05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014	Average U U 1.09 U 23.71 U 7.17	Units mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium,	No. of Samples 10 10 10 10 84 10 84 10 84 10	High U U 1.90 U 66.00 U 30.00 U	Date 12/30/2014 12/30/2014 07/11/2017 12/30/2014 09/09/2015 12/30/2014 05/06/2015 12/30/2014	Lov 4 U 4 U 7 0.4 4 U 5 7.1 4 U 5 0.0 4 U 5 0.0 4 U 4 U 4 U 5 0.0	<b>v</b> 0 0 0	Date 05/04/2021 05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021	Average U U 1.09 U 23.71 U 7.17 U	Units mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper,	No. of Samples 10 10 10 10 84 10 84 10 84 10 10	High U 1.90 U 66.00 U 30.00 U 30.00 U U 5.00 U	Date 12/30/2014 12/30/2014 07/11/2017 12/30/2014 09/09/2015 12/30/2014 05/06/2015 12/30/2014 12/30/2014	Lov 4 U 4 U 7 0.4 4 U 5 7.1 4 U 5 0.0 4 U 4 U 4 U 4 U 4 U 4 U 4 U 4 U	v 0 0 0 4	Date 05/04/2021 05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 05/04/2021	Average U U 1.09 U 23.71 U 7.17 U U U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved	No. of Samples 10 10 10 10 84 10 84 10 84 10 10 10	High U 1.90 U 66.00 U 30.00 U U 5.00	Date 12/30/2014 12/30/2014 07/11/2017 12/30/2014 09/09/2015 12/30/2014 12/30/2014 12/30/2014 12/30/2014	Lov 4 U 4 U 7 0.4 4 U 5 7.1 4 U 5 0.0 4 U 4 U 4 U 4 U 4 U 4 U 4 U 4 U	v 0 0 0 4	Date 05/04/2021 05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 05/04/2021 05/04/2021 03/15/2022	Average U 1.09 U 23.71 U 7.17 U U 2.88	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved	No. of Samples 10 10 10 10 84 10 84 10 84 10 10 10 10	High U 1.90 U 66.00 U 30.00 U 30.00 U U 5.00 U	Date 12/30/2014 12/30/2014 07/11/2017 12/30/2014 09/09/2015 12/30/2014 12/30/2014 12/30/2014 12/30/2014 12/30/2014	Lov 4 U 4 U 7 0.4 4 U 5 7.1 4 U 5 0.0 4 U 4 U 4 U 4 U 4 U 4 U 7 0.4 4 U 7 1.0	v 0 0 0 4 0	Date 05/04/2021 05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 05/04/2021 03/15/2022 05/04/2021	Average U U 1.09 U 23.71 U 7.17 U U 2.88 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium,	No. of Samples 10 10 10 10 84 10 84 10 10 10 10 10 10 10	High U U 1.90 U 66.00 U 30.00 U 30.00 U U 5.00 U 2.70	Date 12/30/2014 12/30/2014 07/11/2017 12/30/2014 09/09/2015 12/30/2014 12/30/2014 12/30/2014 12/30/2014 12/30/2014 12/30/2014 12/30/2014 07/11/2017 06/17/2015 12/30/2014	Lov 4 U 4 U 7 0.4 4 U 7 0.4 4 U 5 7.1 4 U 5 0.0 4 U 4 U 4 0.6 4 U 4 0.6 4 U 7 1.0 5 2.1 4 U	v 0 0 0 4 0	Date 05/04/2021 05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 05/04/2021 03/15/2022 05/04/2021 12/30/2014	Average U U 1.09 U 23.71 U 7.17 U U 2.88 U 2.03 13.52 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium,	No. of Samples 10 10 10 10 84 10 84 10 10 10 10 10 10 10 10 84	High U U 1.90 U 66.00 U 30.00 U 30.00 U U 5.00 U 2.70 20.00	Date 12/30/2014 12/30/2014 07/11/2017 12/30/2014 09/09/2015 12/30/2014 12/30/2014 12/30/2014 12/30/2014 12/30/2014 12/30/2014 07/11/2015	Lov 4 U 4 U 7 0.4 4 U 7 0.4 4 U 5 7.1 4 U 5 0.0 4 U 4 U 4 0.6 4 U 4 0.6 4 U 7 1.0 5 2.1 4 U	v 0 0 0 4 0	Date 05/04/2021 05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 05/04/2021 03/15/2022 05/04/2021 12/30/2014 10/12/2021	Average U U 1.09 U 23.71 U 7.17 U U 2.88 U 2.03 13.52	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese,	No. of Samples 10 10 10 10 84 10 84 10 10 10 10 10 10 10 10 10 10 10 10 10	High U U 1.90 U 66.00 U 30.00 U U 5.00 U 2.70 20.00 U	Date 12/30/2014 12/30/2014 07/11/2017 12/30/2014 09/09/2015 12/30/2014 12/30/2014 12/30/2014 12/30/2014 12/30/2014 12/30/2014 12/30/2014 07/11/2017 06/17/2015 12/30/2014	Lov 4 U 4 U 7 0.4 4 U 5 7.1 4 U 5 0.0 4 U 5 0.0 4 U 4 U 4 U 5 0.6 4 U 7 1.0 5 2.1 4 U 4 U 5 2.1 4 U 5 2.1 5 2.1 4 U 5 2.1 5 2.1 5 2.1 5 2.1 5 2.1 5 2.1 5 2.1 5 2.1 6 0.0 5 0.0 6 0 6 0 6 0 6 0 7 0 7 0 7 0 7 0 7 0 7 0 7 0 7	v 0 0 0 4 0	Date 05/04/2021 05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 03/15/2022 05/04/2021 12/30/2014 10/12/2021 05/04/2021	Average U U 1.09 U 23.71 U 7.17 U U 2.88 U 2.03 13.52 U U U U U U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury,	No. of Samples 10 10 10 10 84 10 84 10 10 10 10 10 10 84 10 10 10 10 10 10 10 10 10 10	High U U 1.90 U 66.00 U 30.00 U 30.00 U U 5.00 U 2.70 20.00 U U U U	Date 12/30/2014 12/30/2014 12/30/2014 07/11/2017 12/30/2014 05/06/2015 12/30/2014 12/30/	Lov 4 U 4 U 4 U 7 0.4 4 U 5 7.1 4 U 5 0.0 4 U 5 0.0 4 U 4 U 4 U 5 0.6 4 U 7 1.0 5 2.1 4 U 4 U 5 2.1 4 U 4 U 5 2.1 4 U 5 2.1 5 2.1 4 U 5 2.1 5 2.1 5 2.1 5 2.1 5 2.1 6 2.1 6 2.1 7 0.4 7 0.4 7 0.4 7 0.4 7 0.4 7 0.4 7 0.4 7 0.4 7 0.4 7 0.4 0 0 5 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	v 0 0 0 4 0	Date 05/04/2021 05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 05/04/2021 12/30/2014 12/30/2014 10/12/2021 05/04/2021 05/04/2021	Average U U 1.09 U 23.71 U 7.17 U U 2.88 U 2.03 13.52 U U U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum,	No. of Samples 10 10 10 10 84 10 84 10 10 10 10 10 10 10 10 10 10 10 10 10	High U U 1.90 U 66.00 U 30.00 U 30.00 U U 5.00 U 2.70 20.00 U U 2.00	Date 12/30/2014 12/30/2014 12/30/2014 07/11/2017 12/30/2014 05/06/2015 12/30/2014 04/05/2016 04/05/20 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/2016 04/05/20	Lov 4 U 4 U 4 U 7 0.4 4 U 5 7.1 4 U 5 0.0 4 U 5 0.0 4 U 4 U 5 0.6 4 U 7 1.0 5 2.1 4 U 4 U 5 2.1 4 U 4 U 5 0.6 4 U 7 0.0 5	v 0 0 0 4 0 6	Date 05/04/2021 05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 03/15/2022 05/04/2021 12/30/2014 10/12/2021 05/04/2021 05/04/2021 05/04/2021	Average U U 1.09 U 23.71 U 7.17 U U 2.88 U 2.03 13.52 U U U U U U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel,	No. of Samples 10 10 10 10 84 10 84 10 10 10 10 10 10 10 10 10 10 10 10 10	High U U 1.90 U 66.00 U 30.00 U 30.00 U U 2.70 20.00 U U 2.70 20.00 U U 2.00 U U	Date 12/30/2014 12/30/2014 12/30/2014 07/11/2017 12/30/2014 05/06/2015 12/30/2014 12/30/	Lov 4 U 4 U 4 U 7 0.4 4 U 5 7.1 4 U 5 0.0 4 U 5 0.0 4 U 4 U 5 0.6 4 U 7 1.0 5 2.1 4 U 4 U 5 2.1 4 U 5 2.1 5 2.1	v 0 0 0 4 0 6	Date 05/04/2021 05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 05/04/2021 12/30/2014 10/12/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021	Average U U 1.09 U 23.71 U 23.71 U 7.17 U U 2.88 U 2.03 13.52 U U U U U U U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Calcium, Chromium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium,	No. of Samples 10 10 10 10 84 10 84 10 10 10 10 10 10 10 10 10 10 10 10 10	High U U 1.90 U 66.00 U 30.00 U 30.00 U U 2.70 20.00 U U 2.70 20.00 U U 140.00 U	Date 12/30/2014 12/30/2014 12/30/2014 07/11/2017 12/30/2014 05/06/2015 12/30/2014 12/30/2014 12/30/2014 12/30/2014 12/30/2014 12/30/2014 12/30/2014 12/30/2014 12/30/2014 12/30/2014 12/30/2014 04/05/2016 12/30/2014 09/09/2015	Lov 4 U 4 U 4 U 7 0.4 4 U 5 7.1 4 U 5 7.1 4 U 5 0.0 4 U 5 0.0 5 0.0 4 U 5 0.0 4 U 5 0.0 4 U 5 0.0 4 U 5 0.0 5 0.0 4 U 4 U 5 0.0 5 0.0 6 0 4 U 5 0.0 5 0.0 6 0 4 U 7 1.0 5 0.0 5 0.1 4 U 5 0.0 5 0.0 5 0.0 5 0.0 5 0.0 6 0 4 U 7 1.0 5 0.0 5 0.1 4 U 5 0.0 5 0.1 4 U 5 0.0 5 0.1 4 U 5 0.1 5 0.1 4 U 5 0.1 4 U 5 0.1 5 0.1 4 U 5 0.1 4 U 5 0.1 4 U 5 0.1 5 0.1 4 U 5 0.1 5 0.1 5 0.1 6 0.1 6 0.1 6 0.1 6 0.1 6 0.1 6 0.0 6 0.0 6 0.0 6 0.0 6 0.0 6 0.0 6 0.0 6 0.0 7 1.0 7 1.0 5 0.0 0 0 4 U 5 0.0 0 0 4 U 5 0.0 0 0 0 0 4 U 5 0.0 0 0 0 0 4 U 5 0.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	v 0 0 0 4 0 6 20	Date 05/04/2021 05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 05/04/2021 05/04/2021 12/30/2014 10/12/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021	Average U U 1.09 U 23.71 U 7.17 U U 2.88 U 2.03 13.52 U U U U U 46.14	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium,	No. of Samples 10 10 10 10 84 10 10 10 10 10 10 10 10 10 10 10 10 10	High U U 1.90 U 66.00 U 30.00 U 30.00 U U 2.70 20.00 U U 2.70 20.00 U U 2.00 U U	Date 12/30/2014 12/30/2014 12/30/2014 07/11/2017 12/30/2014 05/06/2015 12/30/2014 12/30/	Lov 4 U 4 U 4 U 7 0.4 4 U 5 7.1 4 U 5 7.1 4 U 5 0.0 4 U 5 0.0 4 U 4 U 5 0.6 4 U 4 U 5 2.1 4 U 6 0.6 4 U 5 2.1 4 U 6 0.6 4 U 6 0.6 4 U 7 1.0 5 2.1 4 U 6 0.6 4 U 7 1.0 6 0.6 4 U 7 1.0 6 0.6 4 U 7 1.0 6 0.6 4 U 7 1.0 6 0.6 4 U 7 1.0 7 1.0	v 0 0 0 4 6 20 00	Date 05/04/2021 05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 05/04/2021 05/04/2021 12/30/2014 10/12/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021	Average U U 1.09 U 23.71 U 23.71 U 2.38 U 2.03 13.52 U U U U U U U U 46.14 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Boron, Cadmium, Calcium, Chromium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica,	No. of Samples 10 10 10 10 84 10 10 10 10 10 10 10 10 10 10 10 10 10	High U U 1.90 U 66.00 U 30.00 U 30.00 U 5.00 U 2.70 20.00 U 2.70 20.00 U 140.00 U 140.00 U 55.00 73,200	Date 12/30/2014 12/30/2014 12/30/2014 07/11/2017 12/30/2014 05/06/2015 12/30/2014 12/30/2014 12/30/2014 12/30/2014 12/30/2014 12/30/2014 12/30/2014 06/17/2015 12/30/2014 04/05/2016 12/30/2014 04/05/2016 12/30/2014 09/09/2015 12/30/2014 06/08/2024 12/17/2014 06/08/2024 06/08/2024 02/17/2014 06/08/2024 02/17/2014 06/08/2024 02/17/2014 06/08/2024 02/17/2014 06/08/2024 02/17/2014 06/08/2024 02/17/2014 06/08/2024 02/17/2014 02/12/17/2014 02/	Lov 4 U 4 U 4 U 7 0.4 4 U 5 7.1 4 U 5 7.1 4 U 5 0.0 4 U 5 0.0 4 U 4 U 5 0.6 4 U 4 U 5 2.1 4 U 5 2.1 4 U 5 2.1 4 U 5 2.1 4 U 5 2.1 4 U 5 2.1 4 U 5 14.2 4 U 5 14.2 4 U 5 14.2 4 U 5 14.2 4 U 5 14.2 4 U 5 1.1 5 1.1 6 0.6 1 0.0 1 0.6 1 0.0 1 0.6 1 0.0 1 0.6 1 0.0 1 0.0 1 0.6 1 0.0 1	v 0 0 0 0 4 4 0 6 20 20 30	Date 05/04/2021 05/04/2021 11/05/2015 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 03/15/2022	Average U U 1.09 U 23.71 U 7.17 U U 2.88 U 2.03 13.52 U U U U U 46.14 U 22.78	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Boron, Cadmium, Calcium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lea	No. of Samples 10 10 10 10 84 10 10 10 10 10 10 10 10 10 10 10 10 10	High U U 1.90 U 66.00 U 30.00 U 30.00 U U 2.70 20.00 U U 2.70 20.00 U U 140.00 U 55.00	Date 12/30/2014 12/30/2014 07/11/2017 12/30/2014 09/09/2015 12/30/2014 12/30/2014 12/30/2014 12/30/2014 12/30/2014 06/17/2015 12/30/2014 04/05/2016 12/30/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 06/17/2015 12/30/2014 06/17/2015 12/30/2014 06/17/2015 12/30/2014 06/17/2015 12/30/2014 06/17/2015 12/30/2014 06/17/2015 12/30/2014 06/17/2015 12/30/2014 06/17/2015 12/30/2014 06/17/2015 12/30/2014 06/17/2015 12/30/2014 06/17/2015 12/30/2014 06/17/2015 12/30/2014 06/17/2015 12/30/2014 06/12/2015 12/30/2014 06/12/2015 06/12/2014 06/12/2015 06/12/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 09/09/2015 12/30/2014 06/08/2027 06/18/2027 07/18/2027 07/18/2027 07/18/2027 07/18/2027 07/18/2027	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	v 0 0 0 0 4 0 6 20 20 30 0 0	Date 05/04/2021 05/04/2021 11/05/2015 05/04/2021 01/09/2018 05/04/2021 12/30/2014 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 05/04/2021 03/15/2022 05/04/2021 09/11/2017	Average U U 1.09 U 23.71 U 7.17 U 7.17 U U 2.88 U 2.03 13.52 U U U U U 46.14 U 22.78 27,021	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Table 36: DS-7 Annual Dissolution Surface Aquifer

DAUB & ASSOCIATES, INC. 20, 34 The Contraction of the Co



Parameters	No. of			_	_	_		
Wet Chemistry	Samples		High	Date	Low	Date	Average	Units
Bicarbonate as	<u>10</u>		23,300	01/15/2015	16,000	04/07/2022	19,010	mg/l
Carbonate as	10		9,590	06/25/2019	4,200	01/15/2015	7,320	mg/l
Total Alkalinity as	10		27,500	01/15/2015	24,600	04/07/2022	26,330	mg/l
Bromide	10		U	01/08/2015	U U	06/08/2021	<u> </u>	mg/l
Cation-Anion	10		-1.40	06/25/2019	-9.50	01/08/2015	-4.10	%
Sum of Anions	10		586.00	06/03/2020	530.00	04/07/2022	562.50	meq/l
Sum of Cations	10		552.00	06/25/2019	477.00	01/08/2015	518.30	meq/l
Chemical	10		731.00	01/15/2015	95.00	09/28/2017	223.14	mg/l
Chloride	10		1,080	06/25/2019	900	01/15/2015	989	mg/l
Conductivity,	10		37,100	06/19/2018	33,200	12/15/2015	35,030	µmhos
Fluoride	10		83.70	06/08/2021	61.80	06/19/2018	70.13	mg/l
Hardness as	10		7.00	04/07/2022	7.00	04/07/2022	7.00	mg/l
Nitrate as N,	10		0.03	01/15/2015	UH	06/08/2021	UH	mg/l
Nitrate/Nitrite	10		0.03	01/15/2015	UH	06/08/2021	UH	mg/l
Nitrite as N,	10		0.01	06/25/2019	UH	06/08/2021	UH	mg/l
Nitrogen,	10		11.40	04/07/2022	5.93	06/08/2021	8.31	mg/l
Nitrogen,	10		10.00	06/08/2021	1.30	06/19/2018	5.30	mg/l
Nitrogen, Total	10		15.60	06/08/2021	6.80	06/03/2020	12.29	mg/l
pH, lab	10		9.30	04/07/2022	8.70	01/08/2015	9.08	units
Phosphate,	10		25.00	06/25/2019	15.00	12/15/2015	19.70	mg/l
Phosphorus,	10		8.20	06/25/2019	4.90	12/15/2015	6.37	mg/l
SAR in Water	1		1,900	04/07/2022	1,900	04/07/2022	1,900	none
Sulfate	10		368	06/25/2019	100.00	01/08/2015	227	mg/l
Sulfide	10		2.89	04/07/2022	0.60	04/05/2016	1.68	mg/l
Total Dissolved	10		30,100	06/25/2019	27,700	04/07/2022	29,080	mg/l
Conductivity,	10		39,750	12/15/2015	31,210	04/05/2016	34,369	µmhos
pH, Field	10		9.23	06/19/2018	8.20	10/06/2014	8.91	units
	Temperature	10	15.20	06/08/2021	11.20	10/06/2014	13.40	(°C)
Water Level,								
Field	10	501.10	04/07/2022	2 81.0	00	01/08/2015	455.41	Ft.
Field	10	501.10	04/07/2022	2 81.0	00	01/08/2015	455.41	Ft.
	10 No. of		I					
Parameters Metals	No. of	501.10 High	04/07/2022	2 81.0 Lov		01/08/2015 Date	455.41 Average	Ft. Units
Parameters Metals			Date	Lov	N	Date		Units
Parameters Metals Aluminum,	No. of Samples	High	<b>Date</b>	Lov 1 U	N	<b>Date</b> 01/08/2015	Average	Units mg/l
Parameters Metals Aluminum, Arsenic,	No. of Samples 10 10	High U 0.07	Date 06/08/2021 01/15/2015	Lov 1 U 5 0.0	<b>v</b> 01	Date 01/08/2015 04/05/2016	Average U 0.03	Units mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium,	No. of Samples 10	High U	Date 06/08/2022 01/15/2015 01/15/2015	Lov 1 U 5 0.0 5 0.3	<b>v</b> 01 60	Date 01/08/2015 04/05/2016 06/03/2020	Average	Units mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium,	No. of Samples 10 10 10 10 10	High U 0.07 1.00 U	Date 06/08/2022 01/15/2015 01/15/2015 06/08/2022	Lov 1 U 5 0.0 5 0.3 1 U	<b>v</b> 11 60	Date 01/08/2015 04/05/2016 06/03/2020 01/08/2015	Average U 0.03 0.56 U	Units mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron,	No. of Samples 10 10 10 10 10 10	High U 0.07 1.00 U 14.00	Date 06/08/202 01/15/2015 01/15/2015 06/08/202 06/25/2015	Lov Lov 0.0 0.3 0.3 1 U 0 12.7	<b>v</b> 11 30 70	Date 01/08/2015 04/05/2016 06/03/2020 01/08/2015 04/05/2016	Average U 0.03 0.56	Units mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium,	No. of Samples 10 10 10 10 10 10 10	High U 0.07 1.00 U 14.00 U	Date 06/08/202 01/15/2015 01/15/2015 06/08/202 06/25/2015 06/08/202	Lov Lov 0.0 0.3 0.3 1 0 1 0 1 0 1 0 1 0 1 0 0 1 0 0 0 0 0 0 0 0 0 0 0 0 0	<b>v</b> 11 30 70	Date 01/08/2015 04/05/2016 06/03/2020 01/08/2015 04/05/2016 01/08/2015	Average U 0.03 0.56 U 13.45	Units mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium,	No. of Samples 10 10 10 10 10 10 10 10 10	High U 0.07 1.00 U 14.00	Date 06/08/202 01/15/2015 06/08/202 06/25/2015 06/08/202 06/08/202 06/08/202	Lov Lov 5 0.0 5 0.3 1 U 9 12.1 1 U 2 2.8	<b>v</b> 01 00 70 34	Date 01/08/2015 04/05/2016 06/03/2020 01/08/2015 04/05/2016 01/08/2015 04/07/2022	Average U 0.03 0.56 U 13.45 U	Units mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium,	No. of Samples 10 10 10 10 10 10 10 10 10 10	High U 0.07 1.00 U 14.00 U 2.84	Date 06/08/202 01/15/2019 01/15/2019 06/08/202 06/25/2019 06/08/202 04/07/2022 06/08/202	Lov Lov 5 0.0 5 0.3 1 U 9 12. 1 U 2 2.8 1 U	<b>v</b> 01 00 70 44	Date 01/08/2015 04/05/2016 06/03/2020 01/08/2015 04/05/2016 01/08/2015	Average U 0.03 0.56 U 13.45 U 2.84	Units mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper,	No. of Samples 10 10 10 10 10 10 10 10 10 10 10 10	High U 0.07 1.00 U 14.00 U 2.84 U U	Date 06/08/202 01/15/2015 01/15/2015 06/08/202 06/08/202 04/07/2022 06/08/202 06/08/202	Lov Lov 5 0.0 5 0.3 1 U 9 12.7 1 U 2 2.8 1 U 1 U 1 U	<b>v</b> 30 70 34	Date 01/08/2015 04/05/2016 06/03/2020 01/08/2015 04/05/2016 01/08/2015 04/07/2022 01/08/2015 01/08/2015	Average U 0.03 0.56 U 13.45 U 2.84 U U U U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved	No. of Samples 10 10 10 10 10 10 10 10 10 10 10 10 10	High U 0.07 1.00 U 14.00 U 2.84 U	Date 06/08/202 01/15/2015 01/15/2015 06/08/202 06/08/202 06/08/202 06/08/202 06/08/202 06/08/202 06/08/202	Lov Lov 5 0.0 5 0.3 1 U 9 12.3 1 U 2 2.8 1 U 2 2.8 1 U 1 U 5 0.4	<b>N</b> 1 30 70 34 -0	Date 01/08/2015 04/05/2016 06/03/2020 01/08/2015 04/05/2016 01/08/2015 04/07/2022 01/08/2015 01/08/2015 09/28/2017	Average U 0.03 0.56 U 13.45 U 2.84 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper,	No. of Samples 10 10 10 10 10 10 10 10 10 10 10 10 10	High U 0.07 1.00 U 14.00 U 2.84 U U 2.70 U	Date 06/08/202 01/15/2015 01/15/2015 06/08/202 06/08/202 06/08/202 06/08/202 06/08/202 06/08/202 06/08/202	Lov Lov 5 0.0 5 0.3 1 U 9 12.7 1 U 2 2.8 1 U 2 2.8 1 U 1 U 5 0.4 1 U	<b>v</b> 30 70 34	Date 01/08/2015 04/05/2016 06/03/2020 01/08/2015 04/05/2016 01/08/2015 04/07/2022 01/08/2015 01/08/2015 09/28/2017 01/08/2015	Average U 0.03 0.56 U 13.45 U 2.84 U 2.84 U U U 1.44 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved	No. of Samples 10 10 10 10 10 10 10 10 10 10 10 10 10	High U 0.07 1.00 U 14.00 U 2.84 U U 2.70	Date 06/08/202 01/15/2015 01/15/2015 06/08/202 06/08/202 06/08/202 06/08/202 06/08/202 06/08/202 06/08/202	Lov Lov 5 0.0 5 0.3 1 U 9 12.7 1 U 2 2.8 1 U 2 2.8 1 U 5 0.4 1 U 2 4.2	<b>N</b> 1 30 70 34 	Date 01/08/2015 04/05/2016 06/03/2020 01/08/2015 04/05/2016 01/08/2015 04/07/2022 01/08/2015 01/08/2015 09/28/2017	Average U 0.03 0.56 U 13.45 U 2.84 U U U 1.44	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Cadmium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium,	No. of Samples 10 10 10 10 10 10 10 10 10 10 10 10 10	High U 0.07 1.00 U 14.00 U 2.84 U U 2.70 U 2.70 U 5.07	Date 06/08/202 01/15/2015 01/15/2015 06/08/202 06/08/202 06/08/202 06/08/202 06/08/202 06/08/202 01/15/2015 06/08/202 04/07/2022	Lov Lov 0.00 0	<b>N</b> 1 30 70 34 -0 -0 -0	Date 01/08/2015 04/05/2016 06/03/2020 01/08/2015 04/05/2016 01/08/2015 04/07/2022 01/08/2015 01/08/2015 09/28/2017 01/08/2015 01/08/2015	Average U 0.03 0.56 U 13.45 U 2.84 U 2.84 U U 1.44 U 4.56	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Cadmium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium,	No. of Samples 10 10 10 10 10 10 10 10 10 10 10 10 10	High U 0.07 1.00 U 14.00 U 2.84 U U 2.70 U 2.70 U 5.07 U	Date 06/08/202 01/15/2015 01/15/2015 06/08/202 06/08/202 06/08/202 06/08/202 06/08/202 06/08/202 01/15/2015 06/08/202 04/07/2022 06/08/202	Lov Lov 5 0.0 5 0.3 1 U 9 12.1 1 U 2 2.8 1 U 2 2.8 1 U 5 0.4 1 U 5 0.4 1 U 2 4.2 1 U 1 U 1 U	N 01 00 70 64 	Date 01/08/2015 04/05/2016 06/03/2020 01/08/2015 04/05/2016 01/08/2015 04/07/2022 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015	Average U 0.03 0.56 U 13.45 U 2.84 U 2.84 U U 1.44 U 4.56 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Cadmium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese,	No. of Samples 10 10 10 10 10 10 10 10 10 10 10 10 10	High U 0.07 1.00 U 14.00 U 2.84 U U 2.70 U 2.70 U 5.07 U U U	Date 06/08/202 01/15/2015 01/15/2015 06/08/202 06/08/202 06/08/202 06/08/202 06/08/202 06/08/202 06/08/202 06/08/202 06/08/202 06/08/202	Lov Lov 0.00 0	<b>N</b> 1 30 70 34 -0 20	Date 01/08/2015 04/05/2016 06/03/2020 01/08/2015 04/05/2016 01/08/2015 04/07/2022 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015	Average U 0.03 0.56 U 13.45 U 2.84 U 2.84 U U 1.44 U 4.56 U U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Bervllium, Bervllium, Cadmium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury,	No. of Samples 10 10 10 10 10 10 10 10 10 10 10 10 10	High U 0.07 1.00 U 14.00 U 2.84 U U 2.70 U 2.70 U U 5.07 U U U U U	Date 06/08/2022 01/15/2015 06/08/2022 06/08/202 06/08/20 06/08/202 06/08/202 06/08/20 06/08/202 06/08/202 06/08/20 08/08/20 08/08/20 08/08/20 08/08/20 08/08/20 08/08/20 08/08/20 08/08/20 08/08/20 08/08/20 08/08/20 08/08/20 08/08/20 08/08/20 08/08/20 08/08/20	Lov Lov 5 0.0 5 0.3 1 U 9 12.7 1 U 2 2.8 1 U 2 2.8 1 U 5 0.4 1 U 5 0.4 1 U 5 0.4 1 U 5 0.4 1 U 5 0.4	N 1 30 70 34 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0	Date 01/08/2015 04/05/2016 06/03/2020 01/08/2015 04/05/2016 01/08/2015 04/07/2022 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015	Average U 0.03 0.56 U 13.45 U 2.84 U 2.84 U U 1.44 U 4.56 U U U U U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Cadmium, Calcium, Chromium, Chromium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum,	No. of Samples 10 10 10 10 10 10 10 10 10 10 10 10 10	High U 0.07 1.00 U 14.00 U 2.84 U U 2.70 U 2.70 U 5.07 U U U U 0.50	Date 06/08/202 01/15/2015 06/08/202 06/08/20 06/08/202 06/08/20 06/08/20 06/08/20 08/08/	Lov Lov 5 0.0 5 0.3 1 U 2 2.8 1 U 2 2.8 1 U 2 2.8 1 U 5 0.4 1 U 1 U 5 0.4 1 U 1 U 5 0.4 1 U 5 0.4 5 0.4 5 0.4 5 0.3	N 1 30 70 44 -0 -0 	Date 01/08/2015 04/05/2016 06/03/2020 01/08/2015 04/05/2016 01/08/2015 04/07/2022 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015	Average U 0.03 0.56 U 13.45 U 2.84 U 2.84 U U 1.44 U 4.56 U U U U U 0.48	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel,	No. of Samples 10 10 10 10 10 10 10 10 10 10 10 10 10	High U 0.07 1.00 U 14.00 U 2.84 U U 2.84 U U 2.70 U U U U U 0.50 0.30	Date 06/08/202 01/15/2015 01/15/2015 06/08/202 00/08/202 00/	Lov Lov 0.00 0.	N 1 30 70 34 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0	Date 01/08/2015 04/05/2016 06/03/2020 01/08/2015 04/05/2016 01/08/2015 04/07/2022 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015	Average U 0.03 0.56 U 13.45 U 2.84 U 2.84 U U 1.44 U 4.56 U U U U U U 0.48 0.30	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium,	No. of Samples 10 10 10 10 10 10 10 10 10 10 10 10 10	High U 0.07 1.00 U 14.00 U 2.84 U U 2.70 U 2.70 U U U U 0.50 0.30 68.00 U	Date 06/08/202 01/15/2015 01/15/2015 06/08/202 00/08/202 00/08/20 00/0	Lov Lov 0.00 0.	N 1 30 70 44 -0 -0 -0 -0 -0 -0 -0 -0 -0 -0	Date 01/08/2015 04/05/2016 06/03/2020 01/08/2015 04/05/2016 01/08/2015 04/07/2022 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015	Average U 0.03 0.56 U 13.45 U 2.84 U 2.84 U U 1.44 U 4.56 U U U U U U 0.48 0.30	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium,	No. of Samples 10 10 10 10 10 10 10 10 10 10 10 10 10	High U 0.07 1.00 U 14.00 U 2.84 U 2.84 U U 2.70 U 5.07 U U U 0.50 0.30 68.00	Date 06/08/202 01/15/2015 01/15/2015 06/08/202 06/	Lov Lov 0.00 0.	N       11       30       70       34       -0       -20       -3       -30       -00	Date 01/08/2015 04/05/2016 06/03/2020 01/08/2015 04/05/2016 01/08/2015 04/07/2022 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015	Average U 0.03 0.56 U 13.45 U 2.84 U 2.84 U U 1.44 U 4.56 U U U 0.48 0.30 59.97 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Magnesium, Manganese, Mercury, Nickel, Potassium, Selenium, Silica, Sodium,	No. of Samples 10 10 10 10 10 10 10 10 10 10 10 10 10	High U 0.07 1.00 U 14.00 U 2.84 U 2.84 U U 2.70 U 2.70 U U 0.50 0.30 68.00 U 60.00 12,500	Date 06/08/202 01/15/2015 06/08/202 06/08/20 08/08/20 08/08/20 08/08/20 08/08/20 08/08/20 08/08/20 08/08/20 08/08/20 08/08/20 08/08/20 08/08/20 08	Lov Lov 0.00 0.	N       11       30       70       34       -0       -20       -3       -00 <t< td=""><td>Date 01/08/2015 04/05/2016 06/03/2020 01/08/2015 04/05/2016 01/08/2015 04/07/2022 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015</td><td>Average U 0.03 0.56 U 13.45 U 2.84 U 2.84 U U 1.44 U 4.56 U U U 0.48 0.30 59.97 U 37.80</td><td>Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l</td></t<>	Date 01/08/2015 04/05/2016 06/03/2020 01/08/2015 04/05/2016 01/08/2015 04/07/2022 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015	Average U 0.03 0.56 U 13.45 U 2.84 U 2.84 U U 1.44 U 4.56 U U U 0.48 0.30 59.97 U 37.80	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica,	No. of Samples 10 10 10 10 10 10 10 10 10 10 10 10 10	High U 0.07 1.00 U 14.00 U 2.84 U 2.70 U 2.70 U 2.70 U U 0.50 0.30 68.00 U 60.00	Date 06/08/202 01/15/2015 01/15/2015 06/08/202 06/	Lov Lov 0.00 0.	N       11       30       70       34       34       30       20       33       30       20       30       20       30       20       30       20	Date 01/08/2015 04/05/2016 06/03/2020 01/08/2015 04/05/2016 01/08/2015 04/07/2022 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015 01/08/2015	Average U 0.03 0.56 U 13.45 U 2.84 U 2.84 U U 1.44 U 4.56 U U U 0.48 0.30 59.97 U 37.80 11,730	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Table 37: DS-8 Annual Dissolution Surface Aquifer

DAUB & ASSOCIATES, INC. 201 State Concerts In Market



2022 Project Status Report & Annual Plan of Development

DAUB & ASSOCIATES, INC.


Parameters	No. of			_	_	_	_	
Wet Chemistry	Samples		High	Date	Low	Date	Average	Units
Bicarbonate as	<u>Samples</u> 11		20,200	06/02/2020	11,900	06/20/2018	14,536	mg/l
Carbonate as	11		4,570	04/22/2019	1,880	09/28/2017	2,696	mg/l
Total Alkalinity as	11		22.200	06/02/2020	14,300	09/28/2017	17,227	mg/l
Bromide	11		<u>22,200</u> U	06/02/2020	U	11/04/2014	U	mg/l
Cation-Anion	11		-1.90	09/28/2017	-83.70	06/02/2020	-11.55	%
Sum of Anions	11		474.00	06/02/2020	341.00	06/20/2018	405.36	meg/l
Sum of Cations	11		429.00	06/02/2020	42.00	06/02/2020	335.82	meq/l
Chemical	11		132.00	09/28/2017	90.00	06/02/2020	113.22	mg/l
Chloride	11		2,470	09/28/2017 02/04/2015	830	06/02/2020	1,755	mg/l
Conductivity,	11		29,900	06/03/2022	24,300	12/15/2015	26,800	µmhos
Fluoride	11		62.50	04/22/2019	41.40	06/20/2018	48.96	mg/l
Hardness as	11		36.00	04/22/2019	0.00	12/15/2015	20.83	mg/l
	11				UH		<u>20.83</u> UH	
Nitrate as N,	11		0.03 0.04	01/28/2015	UH	12/15/2015 12/15/2015	UH	mg/l
Nitrate/Nitrite				01/28/2015				mg/l
Nitrite as N,	11		0.01	01/28/2015	UH	12/15/2015	UH	mg/l
Nitrogen,	11		7.40	01/28/2015	3.43	06/20/2018	5.15	mg/l
Nitrogen,	11		6.00	06/08/2021	1.80	01/28/2015	3.99	mg/l
Nitrogen, Total	11		10.50	06/08/2021	2.30	06/02/2020	8.14	mg/l
pH, lab	11		9.00	04/22/2019	8.60	06/08/2021	8.80	units
Phosphate,	11		12.00	06/02/2020	3.70	02/04/2015	7.81	mg/l
Phosphorus,	11		3.89	06/08/2021	1.20	02/04/2015	2.50	mg/l
SAR in Water	6		1,700	06/08/2021	83.00	06/02/2020	727	none
Sulfate	11		2,870	02/04/2015	10.80	04/22/2019	588	mg/l
Sulfide	11		0.47	06/03/2022	U	11/04/2014	U	mg/l
Total Dissolved	11		24,100	06/03/2022	15,500	06/02/2020	20,373	mg/l
Conductivity,	10		29,450	04/22/2019	23,740	04/05/2016	26,739	µmhos
pH, Field	10		8.93	06/20/2018	7.20	01/29/2015	8.36	units
	Temperature	10	14.35	06/20/2018	11.90	04/22/2019	13.15	(°C)
Water Level,	11		10/29/2014	453	17	10/18/2018	456 48	Ft
Water Level, Field	11	470.10	10/29/2014	453.	17	10/18/2018	456.48	Ft.
Field			10/29/2014	453.	17	10/18/2018	456.48	Ft.
Field Parameters	No. of	470.10						
Field		470.10 High	Date	Lov		Date	456.48 Average	Ft. Units
Field Parameters Metals Aluminum,	No. of Samples 11	470.10 High	<b>Date</b>	Lov	v	<b>Date</b> 06/08/2021	Average	Units mg/l
Field Parameters Metals Aluminum, Arsenic,	No. of Samples 11 11	470.10 High U 0.011	Date 11/04/2014 11/04/2014	Lov U 0.00	<b>v</b> 03	Date 06/08/2021 02/04/2015	Average	Units mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium,	No. of Samples 11 11 11	470.10 High U	Date 11/04/2014 11/04/2014 11/04/2014	Lov U 0.00	<b>v</b> 03	Date 06/08/2021 02/04/2015 02/04/2015	Average	Units mg/l
Field Parameters Metals Aluminum, Arsenic,	No. of Samples 11 11 11 11 11	470.10 High U 0.011 1.87 U	Date 11/04/2014 11/04/2014 11/04/2014 11/04/2014	Lov U 0.00 0.1 U	<b>v</b> 03 2	Date 06/08/2021 02/04/2015 02/04/2015 06/08/2021	Average U 0.006 0.76 U	Units mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium,	No. of Samples 11 11 11	470.10 High U 0.011 1.87	Date 11/04/2014 11/04/2014 11/04/2014	Lov U 0.00	<b>v</b> 03 2	Date 06/08/2021 02/04/2015 02/04/2015	Average U 0.006	Units mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium,	No. of Samples 11 11 11 11 11 11 11	470.10 High U 0.011 1.87 U 13.90 U	Date 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021 11/04/2014	Lov U 0.00 0.1 U 1.2 U	<b>v</b> 03 2 0	Date 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021	Average U 0.006 0.76 U 9.50 U	Units mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron,	No. of Samples 11 11 11 11 11 11 11 11 11	470.10 High U 0.011 1.87 U 13.90	Date 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021	Lov U 0.00 0.1 U 1.2 U	<b>v</b> 03 2 0	Date 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020	Average U 0.006 0.76 U 9.50	Units mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium,	No. of Samples 11 11 11 11 11 11 11 11 11	470.10 High U 0.011 1.87 U 13.90 U	Date 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021 11/04/2014	Lov U 0.00 0.1 U 1.2 U 2.0 U	<b>v</b> 03 2 0 0	Date 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021	Average U 0.006 0.76 U 9.50 U	Units mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium,	No. of Samples 11 11 11 11 11 11 11 11 11	470.10 High U 0.011 1.87 U 13.90 U 6.00	Date 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021 11/04/2014 11/04/2014	Lov U 0.00 0.1 U 1.2 U 2.0 U	<b>v</b> 03 2 0 0	Date 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015	Average U 0.006 0.76 U 9.50 U 3.35	Units mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium,	No. of Samples 11 11 11 11 11 11 11 11 11	470.10 High U 0.011 1.87 U 13.90 U 6.00 U	Date 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021 11/04/2014 11/04/2014 11/04/2014	Lov U 0.00 0.1 U 1.2 U 2.0 U U U U U	<b>v</b> 03 2 0 0	Date 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021	Average U 0.006 0.76 U 9.50 U 3.35 U	Units mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper,	No. of Samples 11 11 11 11 11 11 11 11 11 11 11 11 11	470.10 High U 0.011 1.87 U 13.90 U 6.00 U U U	Date 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021 11/04/2014 11/04/2014 11/04/2014 11/04/2014	Lov U 0.00 0.1 U 1.2 U 2.0 U U U U 0.2	v 03 2 0 0 0	Date 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021	Average U 0.006 0.76 U 9.50 U 3.35 U U U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved	No. of Samples 11 11 11 11 11 11 11 11 11 11 11 11	470.10 High U 0.011 1.87 U 13.90 U 6.00 U 0 U 1.20	Date 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021 11/04/2014 11/04/2014 11/04/2014 11/04/2014	Lov U 0.00 0.1 U 1.2 U 2.0 U 2.0 U U U U U U U U U U U U	v 03 2 0 0 0	Date 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021 06/08/2021 12/15/2015	Average U 0.006 0.76 U 9.50 U 3.35 U U U 0.58	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved	No. of Samples 11 11 11 11 11 11 11 11 11 11 11 11 11	470.10 High U 0.011 1.87 U 13.90 U 6.00 U 0 U 1.20 U	Date 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014	Lov U 0.0( 0.1 U 1.2 U 2.0 U 2.0 U U U 0.2 U U 0.2	v 03 2 0 0 0 0	Date 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021 12/15/2015 06/08/2021	Average U 0.006 0.76 U 9.50 U 3.35 U U U 0.58 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Cadmium, Calcium, Chromium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium,	No. of Samples 11 11 11 11 11 11 11 11 11 11 11 11 11	470.10 High U 0.011 1.87 U 13.90 U 6.00 U 0 U 1.20 U 4.09	Date 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021 01/28/2015 11/04/2014	Lov U 0.0( 0.1 U 1.2 U 2.0 U 2.0 U U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.1 U 0.0( 0.0) U 0.0( 0 U 0.0( 0) U 0.0( 0) U 0 U 0 U 0 U 0 U 0 U 0 U 0 U 0 U 0	v 03 2 0 0 0 0	Date 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021 12/15/2015 06/08/2021 06/08/2021	Average U 0.006 0.76 U 9.50 U 3.35 U U 0.58 U U 2.94	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium,	No. of Samples 11 11 11 11 11 11 11 11 11 11 11 11 11	470.10 High U 0.011 1.87 U 13.90 U 6.00 U 0 U 1.20 U 4.09 7.00	Date 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021 01/28/2015	Lov U 0.0( 0.1 U 1.2 U 2.0 U 2.0 U U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.1 U 0.0( 0.0) U 0.0( 0 U 0.0( 0) U 0.0( 0) U 0 U 0 U 0 U 0 U 0 U 0 U 0 U 0 U 0	v 03 2 0 0 0 0 0 0 0 0	Date 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021 12/15/2015 06/08/2021 06/08/2021 06/02/2020 11/04/2014	Average U 0.006 0.76 U 9.50 U 3.35 U U 0.58 U 2.94 5.50	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese,	No. of Samples 11 11 11 11 11 11 11 11 11 11 11 11 11	470.10 High U 0.011 1.87 U 13.90 U 6.00 U 0 U 1.20 U 4.09 7.00 U	Date 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021 01/28/2015 11/04/2014	Lov U 0.00 0.1 U 1.2 U 2.0 U 2.0 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.1 U 0.0 U 0 U	v 03 2 0 0 0 0 0 0 0 0	Date 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/08/2021 02/04/2015 06/08/2021 06/08/2021 12/15/2015 06/08/2021 06/02/2020 11/04/2014 06/08/2021	Average U 0.006 0.76 U 9.50 U 3.35 U 3.35 U U 0.58 U 2.94 5.50 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury,	No. of Samples 11 11 11 11 11 11 11 11 11 11 11 11 11	470.10 High U 0.011 1.87 U 13.90 U 6.00 U 0 U 1.20 U 4.09 7.00 U U U U	Date 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021 01/28/2015 11/04/2014 11/04/2014	Lov U 0.00 0.1 U 1.2 U 2.0 U 2.0 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.0 U 0 U	v 03 2 0 0 0 0 0 0 0 0 0 0 0 0 0	Date 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/08/2021 02/04/2015 06/08/2021 06/08/2021 12/15/2015 06/08/2021 06/02/2020 11/04/2014 06/08/2021 06/08/2021	Average U 0.006 0.76 U 9.50 U 3.35 U U 0.58 U 0.58 U 2.94 5.50 U U U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Boron, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum,	No. of Samples 11 11 11 11 11 11 11 11 11 11 11 11 11	470.10 High U 0.011 1.87 U 13.90 U 13.90 U 6.00 U U 1.20 U 4.09 7.00 U U U 0.30	Date 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021 01/28/2015 11/04/2014 02/04/2015	Lov U 0.00 0.1 U 1.2 U 2.0 U 2.0 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.1 U 0.00 U 0.00 U 0.1 U 0.00 U 0.00 U 0.1 U 0.00 U 0.1 U 0.00 U 0.1 U 0.1 U 0.00 U 0.00 U 0.1 U 0.00 U 0.1 U 0.00 U 0.1 U 0.00 U 0.00 U 0.1 U 0.00 U 0.1 U 0.00 U 0.1 U 0.00 U 0.1 U 0.00 U 0.1 U 0.00 U 0.00 U 0.00 U 0.1 U 0.00 U 0 U	v 03 2 0 0 0 0 0 0 0 0 0 0 0 0 0	Date 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/08/2021 02/04/2015 06/08/2021 02/04/2015 06/08/2021 12/15/2015 06/08/2021 12/15/2015 06/08/2021 12/15/2015 06/08/2021	Average U 0.006 0.76 U 9.50 U 3.35 U U 0.58 U U 2.94 5.50 U U U 0.25	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel,	No. of Samples 11 11 11 11 11 11 11 11 11 11 11 11 11	470.10 High U 0.011 1.87 U 13.90 U 6.00 U 0.00 U 1.20 U 4.09 7.00 U U 0.30 U	Date 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021 01/28/2015 11/04/2014 02/04/2015 11/04/2014	Lov U 0.00 0.1 U 1.2 U 2.0 U 2.0 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.1 U 0.00 0.00 0.00 0.00 0.00 0.00 0	v 03 2 0 0 0 0 0 0 0 0 0 0 0 0 0	Date 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/08/2021 02/04/2015 06/08/2021 06/08/2021 12/15/2015 06/08/2021 06/08/2021 11/04/2014 06/08/2021 12/15/2015	Average U 0.006 0.76 U 9.50 U 3.35 U U 0.58 U 2.94 5.50 U U 0.25 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Cadmium, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium,	No. of Samples 11 11 11 11 11 11 11 11 11 11 11 11 11	470.10 High U 0.011 1.87 U 13.90 U 13.90 U 0.00 U 4.09 7.00 U 4.09 7.00 U U 0.30 U 30.00 U	Date 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021 01/28/2015 11/04/2014 02/04/2015 11/04/2014 04/22/2019	Lov U 0.00 0.1 U 1.2 U 2.0 U 2.0 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.1 U 0.00 U 0.1 U 0.1 U 0.00 U 0.1 U 0.1 U 0.00 U 0.1 U 0.1 U 0.00 U 0.1 U 0.00 U 0.1 U 0.00 U 0.1 U 0.00 U 0.1 U 0.00 U 0.1 U 0.00 U 0.1 U 0.00 U 0.1 U 0.00 U 0.00 U 0.00 U 0.1 U 0.00 U 0.00 U 0.1 U 0.00 U 0 U	v 03 2 0 0 0 0 0 0 0 0 0 0 0 0 0	Date 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 12/15/2015 06/08/2021 12/15/2015 06/08/2021 12/15/2015 06/08/2021 06/08/2021 06/08/2021	Average U 0.006 0.76 U 9.50 U 3.35 U U 0.58 U U 2.94 5.50 U U 0.25 U U 23.58 U	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Selenium,	No. of Samples 11 11 11 11 11 11 11 11 11 11 11 11 11	470.10 High U 0.011 1.87 U 13.90 U 13.90 U 0.00 U 4.09 7.00 U 4.09 7.00 U 0.30 U 0.30 U 30.00 U 29.00	Date 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021 01/28/2015 11/04/2014 02/04/2015 11/04/2014 04/22/2019 11/04/2014	Lov U 0.00 0.1 U 1.2 U 2.0 U 2.0 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.2 U 0.1 U 0.00 U 0.1 U 0.1 U 0.00 0.00 0.	v 03 2 0 0 0 0 0 0 0 0 0 0 0 0 0	Date 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021 06/08/2021 06/02/2020 11/04/2014 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021	Average U 0.006 0.76 U 9.50 U 3.35 U U 0.58 U U 2.94 5.50 U U 0.25 U U 23.58 U 20.91	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Selenium, Silica, Sodium,	No. of Samples 11 11 11 11 11 11 11 11 11 11 11 11 11	470.10 High U 0.011 1.87 U 13.90 U 13.90 U 6.00 U U 1.20 U 1.20 U 4.09 7.00 U 4.09 7.00 U U 0.30 U 0.30 U 29.00 9,730	Date 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021 01/28/2015 11/04/2014 11/04/2014 02/04/2015 11/04/2014 04/22/2019 11/04/2014 04/22/2019 06/03/2022	Lov U 0.00 0.1 U 1.2 U 2.0 U 0.2 U 0 0 U 0 0 U 0 0 U 0 0 U 0 0 U 0 U 0	v 03 2 0 0 0 0 0 0 0 0 0 0 0 0 0	Date 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021	Average U 0.006 0.76 U 9.50 U 3.35 U U 3.35 U U 2.94 5.50 U U 0.25 U U 23.58 U 20.91 7,606	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Field Parameters Metals Aluminum, Arsenic, Barium, Beryllium, Boron, Cadmium, Calcium, Chromium, Copper, Iron, dissolved Lead, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Selenium,	No. of Samples 11 11 11 11 11 11 11 11 11 11 11 11 11	470.10 High U 0.011 1.87 U 13.90 U 13.90 U 0.00 U 4.09 7.00 U 4.09 7.00 U 0.30 U 0.30 U 30.00 U 29.00	Date 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 11/04/2014 06/08/2021 01/28/2015 11/04/2014 02/04/2015 11/04/2014 04/22/2019 11/04/2014	Lov U 0.00 0.1 U 1.2 U 2.0 U 2.0 U 0.2 U 0 U 0 U 0 U 0 U 0 U 0 U 0 U 0 U 0 U	v 03 2 0 0 0 0 0 0 0 0 0 0 0 0 0	Date 06/08/2021 02/04/2015 02/04/2015 06/08/2021 06/02/2020 06/08/2021 02/04/2015 06/08/2021 06/08/2021 06/02/2020 11/04/2014 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021 06/08/2021	Average U 0.006 0.76 U 9.50 U 3.35 U U 0.58 U U 2.94 5.50 U U 0.25 U U 23.58 U 20.91	Units mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Table 38: DS-9 Annual Dissolution Surface Aquifer

DAUB & ASSOCIATES, INC. 2013 State Contraction



2022 Project Status Report & Annual Plan of Development

DAUB & ASSOCIATES, INC.



Protocols         Protocols <t< th=""><th>Daramatara</th><th>No. of</th><th></th><th></th><th></th><th></th><th></th><th>Averag</th><th></th></t<>	Daramatara	No. of						Averag	
Bicarbonate as         31         41.100         07/08/202         17.20         12/01/202         23.490         mg/l           Total Akalinity as         31         50.300         07/08/202         19.40         11/02/202         27.552         mg/l           Bromide         5         U         05/03/202         U         08/14/201         U         mg/l           Cations-Anion         30         11.280.00         09/07/202         23.30         04/07/202         74.53         %b           Sum of Cations         30         1.280.00         09/07/202         250.0         12/01/202         724.53         meo/l           Chemical Oxygen         5         400.00         08/16/201         20.441.7         11/02/202         8.048         mg/l           Conductivity, Lab         31         74.500         09/17/201         24.00         12/01/202         8.048         mg/l           Hardness as         30         18.00         19/07/201         29.00         09/10/201         65.7         mg/l           Nitrogen, Total         5         UH         05/03/202         UH         08/03/202         12.00         mg/l           Nitrogen, Total         5         19.80         03/14/202 <th>Parameters Wet Chemistry</th> <th></th> <th>Hi</th> <th>gh</th> <th>Date</th> <th>Low</th> <th>Date</th> <th>Averag</th> <th>Units</th>	Parameters Wet Chemistry		Hi	gh	Date	Low	Date	Averag	Units
Carbonate as         31         13.800         09/07/202         566         09/03/202         4.067         mg/l           Bromide         5         U         05/03/202         U         08/01/202         27.552         mg/l           Cation-Anion         30         11.230.00         07/08/202         447.0         11/02/202         784.77         meg/l           Sum of Cations         30         1.280.00         09/07/202         483.0         12/01/202         784.77         meg/l           Chemical Oxygen         5         400.00         09/10/201         2.040.1         11/02/202         784.77         meg/l           Conductivity, Lab         31         774.500         09/10/201         2.040         11/02/202         49.839         mg/l           Conductivity, Lab         31         774.500         09/10/201         2.040         11/02/202         49.839         mg/l           Hardness as         30         118.00         10/07/201         2.040         11/02/202         12.00         mg/l           NitrateR/Nitrite as N.         5         UH         05/03/202         UH         08/07/201         8.50         06/03/202         12.00         14/201         UH         mg/l			41 <sup>·</sup>	100	07/08/202	17 20	12/01/202	23 490	ma/l
Total Akalinity as Bromide         31         50.300         07/08/202         19.40         11/02/202         27.552         mpd/ mpd/ mpd/ mpd/ Sum of Anions         30         13.50         06/03/202         -33.30         04/07/202         -45.3         %           Sum of Anions         30         1.280.00         09/07/202         35.30         12/01/202         784.77         med/ med/ mod/ Choride         30         1.280.00         09/07/202         35.30         12/01/202         784.75         med/ med/ mod/ mod/ Choride         30         10.90.00         09/07/201         2.040         11/02/202         8.048         mg/ mod/ mod/ mod/         8.03         18.00         09/07/201         2.040         10/02/201         8.048         mg/ mod/ mod/ mod/         12.00         mg/ mod/ mod/ mod/         12.00         mg/ mod/ mod/ mod/ mod/ mod/ mod/ mod/ mod									
Bromide         5         U         05/03/202         U         08/14/201         U         mg/           Cation-Anion         30         11.350         06/13/202         33.0         04/07/202         45.3         %           Sum of Cations         30         11.280.00         09/07/202         345.0         11/02/202         724.53         meg/           Chemical Dxygen         5         400.00         08/14/201         400.00         08/14/201         400.00         mg/           Chorductifvity, Lab         31         74.500         08/10/201         26.00         12/01/202         49.839         µmho           Fluoride         30         18.00         10/07/201         7.00         04/05/202         12.00         mg/         mg/           NitrateR.intrite as N.         5         UH         05/03/202         UH         08/03/202         14.31         mg/           Nitrate as N.         5         UH         05/03/202         UH         08/03/202         12.00         14/201         UH         mg/           NitrateR.intrite as N.         5         UH         05/03/202         5.00         08/04/201         2.00         08/14/201         0.0         0.0         06/03/202									
Cation-Anion         30         13:50         06/13/202         -33:30         04/07/202         74:53         %           Sum of Anions         30         1.280.00         09/07/202         353.0         12/01/202         724.77         meg/l           Chemical Oxygen         5         400.00         08/14/201         400.00         08/14/201         400.00         meg/l           Chindie         30         19:800         09/10/201         2.040         11/02/202         49.839         µmho           Conductivity, Lab         31         74.500         09/10/201         2.000         12/01/202         49.839         µmho           Fluoride         30         109.00         09/07/202         2.900         09/10/201         65.27         mg/l           Hardness as         5         UH         05/03/202         UH         08/14/201         UH         mg/l         mg/l           Nitrogen, 5         19.80         03/14/201         8.5         05/03/202         12.31         mg/l           Nitrogen, Total         5         19.80         08/14/201         8.50         06/02/202         3.60         08/14/201         8.67         mg/l           Phosphate, total         5									
Sum of Anions         30         1.230.00         07/08/202         447.0         11/02/202         724.77         meq/l           Chemical Oxygen         6         400.00         08/07/202         353.0         12/01/202         724.53         meq/l           Chemical Oxygen         6         400.00         08/07/201         25.00         12/01/202         8.048         mg/l           Conductivity, Lab         31         774.500         09/10/201         2.040         11/02/202         8.048         mg/l           Hardness as         30         109.00         09/07/202         29.00         09/10/201         65.277         mg/l           Nitrate Nitrite as         5         UH         05/03/202         UH         08/14/201         UH         mg/l           Nitrate as N         5         UH         05/03/202         UH         08/14/201         UH         mg/l           Nitrogen, Total         5         19.80         09/37/202         8.50         06/02/202         13.72         mg/l           Phosphate, total         5         9.90         05/03/202         2.00         08/14/201         8.69         onfits           Phosphate, total         5         9.95         05/03/202 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
Sum of Cations         30         1.280.00         09/07/202         353.0         12/01/202         724.53         mea/l           Chemical Oxygen         5         400.00         08/14/201         400.00         08/14/201         400.00         mg/l           Conductivity, Lab         31         74,500         09/10/201         25.00         12/01/202         49,839         µmho           Fluoride         30         109.00         09/07/202         29.00         09/10/201         65.27         mg/l           Hardness as         30         18.00         10/07/201         7.00         04/05/202         12.00         mg/l           Nitrotaen As         5         UH         05/03/202         UH         08/14/201         UH         mg/l           Nitrogen, Organic         5         9.00         08/03/202         5.00         08/14/201         14.77         mg/l           Nitrogen, Organic         5         9.00         08/03/202         5.00         08/14/201         8.50         mg/l           Phosphate, total         5         9.95         05/03/202         7.10         08/14/201         8.00         mg/l           Phosphate, total         5         10.00         08/14/201									
Chemical Oxygen         5         400.00         08/14/201         400.0         08/14/201         400.00         mg/l           Conductivity, Lab         31         74.500         09/10/201         2.500         12/01/202         49.839         µmho           Fluoride         30         109.00         09/07/202         29.00         09/10/201         65.27         mg/l           Hardness as         30         119.00         10/07/201         7.00         04/05/202         12.00         mg/l           Nitrate/Nitre as N         5         UH         05/03/202         UH         08/14/201         UH         mg/l           Nitrate/Nitre as N         5         UH         05/03/202         UH         08/14/201         UH         mg/l           Nitrogen, Organic         5         9.00         05/03/202         5.00         08/14/201         6.67         mg/l           Nitrogen, total         5         9.00         05/03/202         2.00         08/14/201         8.60         units           Phosphate, total         5         9.95         05/03/202         2.00         08/14/201         8.60         units           Phosphate, total         5         9.05         05/03/202									
Choine         30         19.800         09/10/201         2.040         11/02/202         8.948         mg/l           Conductivity, Lab         31         74,500         09/10/201         25.00         12/01/202         49.839         µmho           Hardness as         30         18.00         10/07/201         7.00         04/05/202         12.00         mg/l           Nitrate as N.         5         UH         05/03/202         UH         08/14/201         UH         mg/l           Nitrogen, 5         19.80         03/14/202         8.55         05/03/202         12.31         mg/l           Nitrogen, Organic         5         9.00         05/03/202         12.01         08/14/201         6.67         mg/l           Phosphate total         5         18.00         08/20/201         2.10         08/14/201         8.09         untrosen           Phosphate total         5         31.00         05/03/202         2.00         08/14/201         8.02         mg/l           SAR in Water         8         4.200         08/02/201         13.00         05/03/202         12/01/202         48.21         umfn           Dissolved         30         67.700         08/07/201 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
Conductivity, Lab         31         74,500         09/10/201         25,00         12/01/202         49,839         µrmho           Hardness as         30         109,00         09/07/201         7,00         09/10/201         65,27         mg/n           Nitrate/Rintife as         5         UH         05/03/202         UH         08/14/201         UH         mg/n           Nitrate/Rintife as         5         UH         05/03/202         UH         08/14/201         UH         mg/n           Nitrogen, Dragnic         5         9,00         05/03/202         5.00         08/14/201         UH         mg/n           Nitrogen, Organic         5         9,00         05/03/202         5.00         08/14/201         6.67         mg/n           Phosphorus, total         5         18.00         08/20/201         2.10         05/13/202         13.71         mg/n           Phosphorus, total         5         31.00         06/03/202         7.10         08/14/201         8.09         mg/n           SAR in Water         8         4.200         08/02/202         1.20         11/02/202         2.414         none           Sulfide         5         10.00         05/13/202         1									
Fluoride         30         109.00         09/07/202         29.00         09/10/201         65.27         mg/l           Nitrate as N,         5         UH         05/03/202         UH         08/14/201         UH         mg/l           Nitrate/Nitrite as         5         UH         05/03/202         UH         08/14/201         UH         mg/l           Nitrogen,         5         UH         05/03/202         UH         08/14/201         UH         mg/l           Nitrogen, Total         5         UH         05/03/202         2.00         08/14/201         6.67         mg/l           Nitrogen, Total         5         18.00         08/20/201         2.10         06/13/202         13.72         mg/l           Phosphate, total         5         3.1.00         05/03/202         2.2.00         08/14/201         8.02         mg/l           SAR in Water         8         4.200         08/03/202         1.20         11/02/202         2.414         none           Suffate         30         U         05/03/202         1.20         12/01/202         41.837         mg/l           Conductivity,         30         67.700         09/07/202         2.8.70         12/01/202									
Hardness as         30         18.00         10/07/201         7.00         04/05/202         12.00         mg/l           Nitrate as N,         5         UH         05/03/202         UH         08/14/201         UH         mg/l           Nitrate Nitrite as N,         5         UH         05/03/202         UH         08/14/201         UH         mg/l           Nitrogen,         5         19.80         03/14/201         8.55         05/03/202         12.31         mg/l           Nitrogen, Organic         5         9.00         05/03/202         2.00         08/14/201         6.67         mg/l           Nitrogen, Total         5         18.00         04/07/202         8.50         06/02/202         8.69         units           Phosphots, total         5         9.95         05/03/202         7.00         08/14/201         8.00         mg/l           Sulfate         30         0         0         05/03/202         1.00         11/02/202         2.444         mg/l           Conductivity,         30         70.540         08/02/201         2.82         12/01/202         48.214         umto           Phosphorus, total         5         0.001         08/14/201         <									
Nitrate as N.         5         UH         05/03/202         UH         08/14/201         UH         mg/l           Nitrate/Nitrite as N.         5         UH         05/03/202         UH         08/14/201         UH         mg/l           Nitrogen, Total         5         19.80         03/14/202         8.55         05/03/202         12.31         mg/l           Nitrogen, Total         5         19.80         08/20/201         2.10         05/13/202         13.72         mg/l           pH, lab         31         8.90         04/07/202         8.50         06/02/202         3.72         mg/l           Phosphate, total         5         9.95         05/03/202         7.10         08/14/201         8.60         mg/l           SAR in Water         8         4.200         08/02/202         1.200         11/02/202         2.414         none           Sulfate         30         U         05/03/202         U         08/14/201         U         mg/l           Conductivity,         30         67.700         09/07/202         2.70         12/01/202         48.214         µmho           DpH, Field         29         8.90         01/01/02/28         2.0         12/01/202									
Nitrate/Nitrite as         5         UH         05/03/202         UH         08/14/201         UH         mg/l           Nitrogen,         5         UH         05/03/202         UH         08/14/201         UH         mg/l           Nitrogen,         5         19.80         03/14/202         8.55         05/03/202         12.31         mg/l           Nitrogen,         5         18.00         08/02/201         2.10         05/13/202         13.72         mg/l           Phosphorus, total         5         31.00         05/03/202         2.20.0         08/14/201         8.69         units           Phosphorus, total         5         10.00         05/03/202         1.00         10/12/202         2.414         none           Sulfate         30         U         05/03/202         1.20         11/02/202         2.414         none           Sulfate         30         0         05/03/202         1.20         11/02/20         2.414         none           Conductivity,         30         70.540         08/02/201         2.73         12/01/202         48.214         umfy           Metals         Samples         High         Date         Low         Date <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>									
Nitrite as N.         5         UH         05/03/202         UH         08/14/201         UH         mg/l           Nitrogen, Organic         5         9.00         05/03/202         5.00         08/14/201         6.67         mg/l           Nitrogen, Total         5         18.00         08/20/202         2.10         05/13/202         13.72         mg/l           pH, Jab         31         8.90         04/07/202         8.50         06/02/202         8.69         units           Phosphate, total         5         9.95         05/03/202         7.10         08/14/201         8.02         mg/l           SAR in Water         8         4.200         08/02/202         1.200         11/02/202         2.414         none           Sulfate         30         U         05/03/202         10         08/14/201         U         mg/l           Sulfate         30         U         05/03/202         12.81         08/14/201         U         mg/l           Sulfate         30         67.700         09/07/202         22.70         12/01/202         48.81         mg/l           Detterevel         34         627.80         04/07/202         565.60         01/11/12/02									
Nitrogen, Nitrogen, Oranic         5         19.80         03/14/202         8.55         05/03/202         12.31         mg/l           Nitrogen, Total         5         18.00         08/20/201         2.10         05/03/202         13.72         mg/l           pH, lab         31         8.90         04/07/202         8.50         06/02/202         8.69         units           Phosphate, total         5         31.00         05/03/202         7.10         08/14/201         25.00         mg/l           SMifate         30         0         06/02/202         1.200         11/02/202         2.414         none           Sulfate         30         0         0         05/03/202         0         08/14/201         4.84         mg/l           Sulfate         30         67.700         09/07/202         2.270         12/01/202         48.214         µmho           pH, Field         29         8.90         01/11/202         8.20         12/01/202         48.214         µmho           pH Field         29         8.90         01/11/202         8.20         12/01/202         48.64         µmho           Metals         30         15.90         07/08/202         9.32									
Nitrogen, Organic         5         9.00         05/03/202         5.00         08/14/201         6.67         mg/l           Nitrogen, Total         5         18.00         08/20/201         2.10         05/13/202         13.72         mg/l           Phosphate, total         5         31.00         05/03/202         22.00         08/14/201         8.09         mg/l           SAR in Water         8         4.200         08/02/202         1.200         11/02/202         2.414         none           Sulfate         30         U         05/03/202         U         08/14/201         4.8.02         mg/l           Sulfate         30         U         05/03/202         U         08/14/201         4.4         mg/l           Sulfate         30         0         07.02         22.70         12/01/202         4.8.34         mg/l           Conductivity,         30         70.540         08/20/201         28.73         12/01/202         48.64         umho           pHied         29         8.90         01/11/202         8.86         units         e         umho           Auminum,         5         U         08/14/201         0.07         03/14/2022         12.01 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
Nitrogen, Total         5         18.00         08/20/201         2.10         05/13/202         13.72         mg/l           Phosphate, total         5         31.00         05/03/202         22.00         08/14/201         25.00         mg/l           Phosphate, total         5         9.95         05/03/202         7.10         08/14/201         8.02         mg/l           SAR in Water         8         4.200         08/02/202         1.200         11/02/202         2.414         none           Sulfate         30         U         05/03/202         U         08/14/201         4.84         mg/l           Total Dissolved         30         67.700         09/07/202         2.70         12/01/202         48.214         µmho           pH, Field         29         8.90         01/11/202         8.20         12/01/202         48.214         µmho           Mater         Low         Date         Carnopretur         3.00         15.90         07/08/202         9.32         02/10/202         1.24         (°C)           Water Level,         34         627.80         04/07/202         565.60         01/11/2021         23.02         mg/l           Auminum,         5									
pH, lab         31         8.90         04/07/202         8.50         06/02/202         8.69         units           Phosphorus, total         5         31.00         05/03/202         22.00         08/14/201         25.00         mg/l           SAR in Water         8         4.200         08/02/202         1.200         11/02/202         2.414         none           Sulfate         30         U         05/03/202         1.38         08/14/201         U         mg/l           Sulfate         30         C         10.00         05/13/202         12/01/202         41.637         mg/l           Conductivity,         30         70.540         08/20/201         28.73         12/01/202         48.214         µmho           pH, Field         29         8.90         01/11/202         8.20         12/01/202         12.64         units           Water Level,         34         627.80         04/07/202         56.50         01/11/202         12.64         mg/l           Arsenic,         5         0.011         08/14/201         U         05/03/2021         U         mg/l           Barium, dissolved         5         0.901         08/14/201         U         05/03/2021 </td <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
Phosphate, total         5         31.00         05/03/202         22.00         08/14/201         25.00         mg/l           Phosphorus, total         5         9.95         05/03/202         7.10         08/14/201         8.02         mg/l           SAR in Water         8         4.200         08/02/202         1.200         11/02/202         2.414         none           Sulfate         30         U         05/03/202         U         08/14/201         U         mg/l           Total Dissolved         30         67.700         09/07/202         22.70         12/01/202         48.214         µmho           pH.Field         29         8.30         01/11/202         8.20         12/01/202         48.214         µmho           pH.Field         29         8.30         04/07/202         565.60         01/11/2021         291.36         Ft.           Water Level,         34         627.80         04/07/202         565.60         01/11/2022         0.70         mg/l           Arsenic,         5         0.011         08/14/201         U         05/03/2021         U         mg/l           Barium, dissolved         5         1.90         08/20/201         1.25 <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>									
Phosphorus, total         5         9.95         05/03/202         7.10         08/14/201         8.02         mg/l           SAR in Water         8         4.200         08/02/202         1.200         11/02/202         2.414         none           Sulfate         30         U         05/03/202         1.38         08/14/201         U         mg/l           Total Dissolved         30         67.700         09/07/202         22,70         12/01/202         48.214         µmho           DH, Field         29         8.90         01/11/202         8.20         12/01/202         48.214         µmho           pH, Field         29         8.90         01/11/202         8.20         12/01/202         8.56         units           Mater Level,         34         627.80         04/07/202         565.60         01/11/202         8.56         Inits           Atuminum,         5         U         08/14/201         U         05/03/2021         U         mg/l           Atuminum,         5         U         08/14/201         U         05/03/2021         U         mg/l           Bernum, dissolved         5         1.90         08/20/201         1.25         03/14/2022									
SAR in Water         8         4,200         08/02/202         1,200         11/02/202         2,414         none           Sulfide         30         U         05/03/202         U         08/14/201         U         mg/l           Total Dissolved         30         67,700         09/07/202         22,70         12/01/202         41,637         mg/l           Conductivity,         30         70,540         08/20/201         28,73         12/01/202         48,214         µmho           pH, Field         29         8,90         01/11/202         8.56         units         51.36         Ft.           Parameters         No. of         Mateias         627.80         04/07/202         565.60         01/11/2021         591.36         Ft.           Parameters         No. of         High         Date         Low         Date         Averag         0.009         mg/l           Aluminum,         5         U         08/14/201         U         05/03/2021         U         mg/l           Berulium, dissolved         5         1.90         08/14/201         U         05/03/2021         U         mg/l           Berulium, dissolved         5         U         08/14/201									
Sulfate         30         U         05/03/202         U         08/14/201         U         mg/l           Total Dissolved         30         67.700         09/07/202         22.70         12/01/202         41.637         mg/l           Conductivity,         30         70.540         08/20/201         28.73         12/01/202         48.214         µmho           pH, Field         29         8.90         01/11/202         8.20         12/01/202         48.214         µmho           pH, Field         29         8.90         01/11/202         8.20         12/01/202         48.264         µmho           Matais         34         627.80         04/07/202         565.60         01/11/202         8.56         µmts           Parameters         No. of         High         Date         Low         Date         Averag         Units           Aluminum,         5         U         08/14/201         U         05/03/2021         U         mg/l           Barium, dissolved         5         1.90         08/20/201         1.25         03/14/2022         1.70         mg/l           Cadmium, 5         U         08/14/201         U         05/03/2021         U         m									mg/l
Sulfide         5         10.00         05/13/202         1.38         08/14/201         4.84         mg/l           Total Dissolved         30         67,700         09/07/202         22,70         12/01/202         48.21         µmho           DpH, Field         29         8.90         01/11/202         8.20         12/01/202         48.56         units           Temperatur         30         15.90         07/08/202         9.32         02/10/202         12.14         (°C)           Water Level,         34         627.80         04/07/202         565.60         01/11/202         8.56         units           Aluminum,         5         U         08/14/201         U         05/03/2021         U         mg/l           Arsenic,         5         0.011         08/14/201         U         05/03/2021         U         mg/l           Barium, dissolved         5         1.90         08/14/201         U         05/03/2021         U         mg/l           Cadmium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Cadmium,         5         U         08/14/201         U         05/03/2021         U						1,200		2,414	none
Total Dissolved         30         67,700         09/07/202         22,70         12/01/202         41,637         mg/l.           Conductivity,         30         70,540         08/20/201         28,73         12/01/202         48,214         µmho           pH, Field         29         8.90         01/11/202         8.20         12/01/202<								-	
$\begin{array}{ c c c c c c c c c c c c c c c c c c c$	Sulfide								
pH, Field         29         8.90         01/11/202         8.20         12/01/202         8.56         units           Temperatur         30         15.90         07/08/202         9.32         02/10/202         12.14         (°C)           Water Level,         34         627.80         04/07/202         565.60         01/11/2021         591.36         Ft.           Parameters         No. of Samples         High         Date         Low         Date         Averag e         Units           Aluminum,         5         U         08/14/201         U         05/03/2021         U         mg/1           Barium, dissolved         5         1.90         08/20/201         1.25         03/14/2022         0.009         mg/1           Boron, dissolved         30         61.00         09/07/202         11.50         12/01/2020         23.02         mg/1           Cadmium,         5         U         08/14/201         U         05/03/2021         U         mg/1           Cadmium,         5         U         08/14/201         U         05/03/2021         U         mg/1           Copper, dissolved         5         U         08/14/201         U         05/03/2021	Total Dissolved	30	67,7	700	09/07/202	22,70		41,637	mg/l
Temperatur         30         15.90         07/08/202         9.32         02/10/202         12.14         (°C)           Water Level,         34         627.80         04/07/202         565.60         01/11/2021         591.36         Ft.           Parameters         No. of Metals         High         Date         Low         Date         Averag e         Units           Aluminum,         5         U         08/14/201         U         05/03/2021         U         mg/l           Barium, dissolved         5         0.011         08/14/201         U         05/03/2021         U         mg/l           Barium, dissolved         5         1.90         08/20/201         1.25         03/14/2022         1.70         mg/l           Boron, dissolved         30         61.00         09/07/202         11.50         12/01/2020         23.02         mg/l           Cadmium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Calcium, 30         7.00         10/07/201         2.63         08/02/2021         4.79         mg/l           Calcium, 30         7.00         08/14/201         U         05/03/2021         U         mg/	Conductivity,	30	70,5	540	08/20/201	28,73	12/01/202	48,214	µmho
Water Level,         34         627.80         04/07/202         565.60         01/11/2021         591.36         Ft.           Parameters         No. of Metals         Samples         High         Date         Low         Date         Averag e         Units           Aluminum,         5         U         08/14/201         U         05/03/2021         U         mg/l           Barium, dissolved         5         1.90         08/20/201         1.25         03/14/2022         0.009         mg/l           Barium, dissolved         5         1.90         08/20/201         1.25         03/14/2022         1.70         mg/l           Boron, dissolved         30         61.00         09/07/202         11.50         12/01/2020         23.02         mg/l           Cadmium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Copper, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lead, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lead, dissolved         5         U         08/14/201         U	pH, Field	29	8.9	90	01/11/202	8.20	12/01/202	8.56	units
Water Level,         34         627.80         04/07/202         565.60         01/11/2021         591.36         Ft.           Parameters Metals         No. of Samples         High Dut         Date         Low         Date         Averag e         Units           Aluminum,         5         U         08/14/201         U         05/03/2021         U         mg/l           Barium, dissolved         5         1.90         08/20/201         1.25         03/14/2022         0.009         mg/l           Barium, dissolved         30         61.00         09/07/202         11.50         12/01/2020         23.02         mg/l           Boron, dissolved         30         61.00         09/07/202         11.50         12/01/2020         23.02         mg/l           Cadmium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Copper, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lead, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Magnesium,         30         U         08/14/201         U         05		Temperatur	30	15.90					
Metals         Samples         Hign         Date         Low         Date         e         Onits           Aluminum,         5         U         08/14/201         U         05/03/2021         U         mg/l           Arsenic,         5         0.011         08/14/201         0.007         03/14/2022         0.009         mg/l           Barium, dissolved         5         1.90         08/20/201         1.25         03/14/2022         1.70         mg/l           Boron, dissolved         30         61.00         09/07/202         11.50         12/01/2020         23.02         mg/l           Cadmium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Calcium,         30         7.00         10/07/201         2.63         08/02/2021         4.79         mg/l           Chromium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Iron, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lead, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l <td></td> <td></td> <td>627.80</td> <td></td> <td></td> <td>01/</td> <td></td> <td>591.36</td> <td>Ft.</td>			627.80			01/		591.36	Ft.
Metals         Samples         Hign         Date         Low         Date         e         Onits           Aluminum,         5         U         08/14/201         U         05/03/2021         U         mg/l           Arsenic,         5         0.011         08/14/201         0.007         03/14/2022         0.009         mg/l           Barium, dissolved         5         1.90         08/20/201         1.25         03/14/2022         1.70         mg/l           Boron, dissolved         30         61.00         09/07/202         11.50         12/01/2020         23.02         mg/l           Cadmium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Calcium,         30         7.00         10/07/201         2.63         08/02/2021         4.79         mg/l           Chromium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Iron, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lead, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l <th>Parameters</th> <th>No. of</th> <th></th> <th></th> <th></th> <th colspan="2"></th> <th>Averag</th> <th></th>	Parameters	No. of						Averag	
Aluminum,         5         U         08/14/201         U         05/03/2021         U         mg/l           Arsenic,         5         0.011         08/14/201         0.007         03/14/2022         0.009         mg/l           Barium, dissolved         5         1.90         08/20/201         1.25         03/14/2022         1.70         mg/l           Berryllium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Boron, dissolved         30         61.00         09/07/202         11.50         12/01/2020         23.02         mg/l           Cadmium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Calcium,         30         7.00         10/07/201         2.63         08/02/2021         4.79         mg/l           Chromium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Iron, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lead, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l			High	Date	LOW		Date	-	Units
Arsenic,         5         0.011         08/14/201         0.007         03/14/2022         0.009         mg/l           Barium, dissolved         5         1.90         08/20/201         1.25         03/14/2022         1.70         mg/l           Beryllium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Boron, dissolved         30         61.00         09/07/202         11.50         12/01/2020         23.02         mg/l           Cadmium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Chromium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Chromium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Iron, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lithium, dissolved         5         3.70         05/13/202         3.50         08/14/2019         3.59         mg/l           Magnesium,         30         U         08/14/201         U         05/03/2021         U			U	08/14/20	1 U	05/	03/2021		ma/l
Barium, dissolved         5         1.90         08/20/201         1.25         03/14/2022         1.70         mg/l           Beryllium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Boron, dissolved         30         61.00         09/07/202         11.50         12/01/2020         23.02         mg/l           Cadmium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Cadmium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Chromium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Copper, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lead, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Magnesium,         30         U         08/14/201         U         05/03/2021         U         mg/l           Manganese,         5         U         08/14/201         U         05/03/2021         U         mg/l								-	
Beryllium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Boron, dissolved         30         61.00         09/07/202         11.50         12/01/2020         23.02         mg/l           Cadmium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Calcium,         30         7.00         10/07/201         2.63         08/02/2021         4.79         mg/l           Chromium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Copper, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Iron, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lead, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Magnesium,         30         U         08/14/201         U         05/03/2021         U         mg/l           Magnesium,         30         U         08/14/201         U         05/03/2021         U         mg/l									
Boron, dissolved         30         61.00         09/07/202         11.50         12/01/2020         23.02         mg/l           Cadmium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Calcium,         30         7.00         10/07/201         2.63         08/02/2021         4.79         mg/l           Chromium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Copper, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Iron, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lead, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lithium, dissolved         5         3.70         05/13/202         3.50         08/14/2019         3.59         mg/l           Magnesium,         30         U         08/14/201         U         05/03/2021         U         mg/l           Mercury,         5         U         08/14/201         U         05/03/2021         U         mg/l <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
Cadmium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Calcium,         30         7.00         10/07/201         2.63         08/02/2021         4.79         mg/l           Chromium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Copper, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Iron, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lead, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lithium, dissolved         5         3.70         05/13/202         3.50         08/14/2019         3.59         mg/l           Magnesium,         30         U         08/14/201         U         05/03/2021         U         mg/l           Manganese,         5         U         08/14/201         U         05/03/2021         U         mg/l           Molybdenum,         5         U         08/14/201         U         05/03/2021         U         mg/l			•					•	
Calcium,         30         7.00         10/07/201         2.63         08/02/2021         4.79         mg/l           Chromium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Copper, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Iron, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lead, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lithium, dissolved         5         3.70         05/13/202         3.50         08/14/2019         3.59         mg/l           Magnesium,         30         U         08/14/201         U         05/03/2021         U         mg/l           Manganese,         5         U         08/14/201         U         05/03/2021         U         mg/l           Mercury,         5         U         08/14/201         U         05/03/2021         U         mg/l           Molybdenum,         5         U         08/14/201         U         05/03/2021         U         mg/l									
Chromium,         5         U         08/14/201         U         05/03/2021         U         mg/l           Copper, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Iron, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lead, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lithium, dissolved         5         3.70         05/13/202         3.50         08/14/2019         3.59         mg/l           Magnesium,         30         U         08/14/201         U         05/03/2021         U         mg/l           Manganese,         5         U         08/14/201         U         05/03/2021         U         mg/l           Mercury,         5         U         08/14/201         U         05/03/2021         U         mg/l           Molybdenum,         5         U         08/14/201         U         05/03/2021         U         mg/l           Nickel, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l									
Copper, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Iron, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lead, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lithium, dissolved         5         3.70         05/13/202         3.50         08/14/2019         3.59         mg/l           Magnesium,         30         U         08/14/201         U         05/03/2021         U         mg/l           Manganese,         5         U         08/14/201         U         05/03/2021         U         mg/l           Mercury,         5         U         08/14/201         U         05/03/2021         U         mg/l           Molybdenum,         5         U         08/14/201         U         05/03/2021         U         mg/l           Nickel, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Selenium,         5         0.0021         05/03/202         U         08/14/2019         U         mg/l									
Iron, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lead, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lithium, dissolved         5         3.70         05/13/202         3.50         08/14/2019         3.59         mg/l           Magnesium,         30         U         08/14/201         U         05/03/2021         U         mg/l           Manganese,         5         U         08/14/201         U         05/03/2021         U         mg/l           Mercury,         5         U         08/14/201         U         05/03/2021         U         mg/l           Molybdenum,         5         U         08/14/201         U         05/03/2021         U         mg/l           Nickel, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Selenium,         5         0.0021         05/03/202         U         08/14/2019         U         mg/l           Silica, dissolved         30         31.00         12/09/201         15.00         12/01/2020         22.77         mg/l </td <td></td> <td></td> <td>•</td> <td></td> <td></td> <td></td> <td></td> <td>•</td> <td></td>			•					•	
Lead, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Lithium, dissolved         5         3.70         05/13/202         3.50         08/14/2019         3.59         mg/l           Magnesium,         30         U         08/14/201         U         05/03/2021         U         mg/l           Manganese,         5         U         08/14/201         U         05/03/2021         U         mg/l           Mercury,         5         U         08/14/201         U         05/03/2021         U         mg/l           Molybdenum,         5         U         08/14/201         U         05/03/2021         U         mg/l           Nickel, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Potassium,         30         800.00         08/20/201         44.10         12/01/2020         248.60         mg/l           Selenium,         5         0.0021         05/03/202         U         08/14/2019         U         mg/l           Silica, dissolved         30         31.00         12/09/201         15.00         12/01/2020         22.777									
Lithium, dissolved53.7005/13/2023.5008/14/20193.59mg/lMagnesium,30U08/14/201U05/03/2021Umg/lManganese,5U08/14/201U05/03/2021Umg/lMercury,5U08/14/201U05/03/2021Umg/lMolybdenum,5U08/14/201U05/03/2021Umg/lNickel, dissolved5U08/14/201U05/03/2021Umg/lPotassium,30800.0008/20/20144.1012/01/2020248.60mg/lSelenium,50.002105/03/202U08/14/2019Umg/lSilica, dissolved3031.0012/09/20115.0012/01/202022.77mg/lSodium,3029,10009/07/2027,99012/01/202016.320mg/lStrontium,300.4212/06/2020.2008/02/20210.26mg/lVanadium,5U08/14/201U05/03/2021Umg/l									
Magnesium,         30         U         08/14/201         U         05/03/2021         U         mg/l           Manganese,         5         U         08/14/201         U         05/03/2021         U         mg/l           Mercury,         5         U         08/14/201         U         05/03/2021         U         mg/l           Molybdenum,         5         U         08/14/201         U         05/03/2021         U         mg/l           Nickel, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Potassium,         30         800.00         08/20/201         44.10         12/01/2020         248.60         mg/l           Selenium,         5         0.0021         05/03/202         U         08/14/2019         U         mg/l           Silica, dissolved         30         31.00         12/09/201         15.00         12/01/2020         22.77         mg/l           Sodium,         30         29,100         09/07/202         7,990         12/01/2020         16,320         mg/l           Strontium,         30         0.42         12/06/202         0.20         08/02/2021         0.26			•						
Manganese,         5         U         08/14/201         U         05/03/2021         U         mg/l           Mercury,         5         U         08/14/201         U         05/03/2021         U         mg/l           Molybdenum,         5         U         08/14/201         U         05/03/2021         U         mg/l           Nickel, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Potassium,         30         800.00         08/20/201         44.10         12/01/2020         248.60         mg/l           Selenium,         5         0.0021         05/03/202         U         08/14/2019         U         mg/l           Silica, dissolved         30         31.00         12/09/201         15.00         12/01/2020         22.77         mg/l           Sodium,         30         29,100         09/07/202         7,990         12/01/2020         16,320         mg/l           Strontium,         30         0.42         12/06/202         0.20         08/02/2021         0.26         mg/l           Vanadium,         5         U         08/14/201         U         05/03/2021         U <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>									
Mercury,         5         U         08/14/201         U         05/03/2021         U         mg/l           Molybdenum,         5         U         08/14/201         U         05/03/2021         U         mg/l           Nickel, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Potassium,         30         800.00         08/20/201         44.10         12/01/2020         248.60         mg/l           Selenium,         5         0.0021         05/03/202         U         08/14/2019         U         mg/l           Silica, dissolved         30         31.00         12/09/201         15.00         12/01/2020         22.77         mg/l           Sodium,         30         29,100         09/07/202         7,990         12/01/2020         16,320         mg/l           Strontium,         30         0.42         12/06/202         0.20         08/02/2021         0.26         mg/l           Vanadium,         5         U         08/14/201         U         05/03/2021         U         mg/l			-						
Molybdenum,         5         U         08/14/201         U         05/03/2021         U         mg/l           Nickel, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Potassium,         30         800.00         08/20/201         44.10         12/01/2020         248.60         mg/l           Selenium,         5         0.0021         05/03/202         U         08/14/2019         U         mg/l           Silica, dissolved         30         31.00         12/09/201         15.00         12/01/2020         22.77         mg/l           Sodium,         30         29,100         09/07/202         7,990         12/01/2020         16,320         mg/l           Strontium,         30         0.42         12/06/202         0.20         08/02/2021         0.26         mg/l           Vanadium,         5         U         08/14/201         U         05/03/2021         U         mg/l									
Nickel, dissolved         5         U         08/14/201         U         05/03/2021         U         mg/l           Potassium,         30         800.00         08/20/201         44.10         12/01/2020         248.60         mg/l           Selenium,         5         0.0021         05/03/202         U         08/14/2019         U         mg/l           Silica, dissolved         30         31.00         12/09/201         15.00         12/01/2020         22.77         mg/l           Sodium,         30         29,100         09/07/202         7,990         12/01/2020         16,320         mg/l           Strontium,         30         0.42         12/06/202         0.20         08/02/2021         0.26         mg/l           Vanadium,         5         U         08/14/201         U         05/03/2021         U         mg/l			_						
Potassium,         30         800.00         08/20/201         44.10         12/01/2020         248.60         mg/l           Selenium,         5         0.0021         05/03/202         U         08/14/2019         U         mg/l           Silica, dissolved         30         31.00         12/09/201         15.00         12/01/2020         22.77         mg/l           Sodium,         30         29,100         09/07/202         7,990         12/01/2020         16,320         mg/l           Strontium,         30         0.42         12/06/202         0.20         08/02/2021         0.26         mg/l           Vanadium,         5         U         08/14/201         U         05/03/2021         U         mg/l									
Selenium,         5         0.0021         05/03/202         U         08/14/2019         U         mg/l           Silica, dissolved         30         31.00         12/09/201         15.00         12/01/2020         22.77         mg/l           Sodium,         30         29,100         09/07/202         7,990         12/01/2020         16,320         mg/l           Strontium,         30         0.42         12/06/202         0.20         08/02/2021         0.26         mg/l           Vanadium,         5         U         08/14/201         U         05/03/2021         U         mg/l									
Silica, dissolved         30         31.00         12/09/201         15.00         12/01/2020         22.77         mg/l           Sodium,         30         29,100         09/07/202         7,990         12/01/2020         16,320         mg/l           Strontium,         30         0.42         12/06/202         0.20         08/02/2021         0.26         mg/l           Vanadium,         5         U         08/14/201         U         05/03/2021         U         mg/l								248.60	
Sodium,         30         29,100         09/07/202         7,990         12/01/2020         16,320         mg/l           Strontium,         30         0.42         12/06/202         0.20         08/02/2021         0.26         mg/l           Vanadium,         5         U         08/14/201         U         05/03/2021         U         mg/l								-	
Sodium,         30         29,100         09/07/202         7,990         12/01/2020         16,320         mg/l           Strontium,         30         0.42         12/06/202         0.20         08/02/2021         0.26         mg/l           Vanadium,         5         U         08/14/201         U         05/03/2021         U         mg/l	Silica, dissolved	30	31.00	12/09/20	1 15.00	12/	01/2020	22.77	mg/l
Strontium,         30         0.42         12/06/202         0.20         08/02/2021         0.26         mg/l           Vanadium,         5         U         08/14/201         U         05/03/2021         U         mg/l	Sodium,	30		09/07/202	2 7,990	12/	01/2020	16,320	
Vanadium, 5 U 08/14/201 U 05/03/2021 U mg/l	Strontium,								
	Vanadium,	5	U	08/14/20	1 U	05/	<u>03/20</u> 21	U	mg/i

#### Table 39: DS-10 Annual Dissolution Surface Aquifer

DAUB & ASSOCIATES, INC.



Demonstra	NI (				1	1		r
Parameters	No. of		High	Date	Low	Date	Average	Units
Wet Chemistry	Samples 64		31,900	03/15/2022	294	09/16/1991	8,909	ma/l
Bicarbonate as Carbonate as	64		4,730	11/02/2015	10.00	06/30/1995	1,096	mg/l mg/l
Total Alkalinity as	64		33,900	03/15/2022	294	09/16/1991	9,901	mg/l
Bromide	33		33.00	08/30/1990	0.10	05/21/2007	7.54	mg/l
Cation-Anion	64		6.10	03/28/2018	-27.90	03/15/2022	-2.61	%
Sum of Anions	61		700.00	03/15/2022	30.69	03/25/1992	233.82	meq/l
Sum of Cations	61		409.00	03/09/2020	31.56	05/28/1991	209.25	meq/l
Chemical Oxygen	30		960.00	06/14/2008	37.00	09/27/2017	154.79	mg/l
Chloride	63		739.00	03/09/2021	21.00	08/30/1990	355.27	mg/l
Conductivity,	62		39,600	03/15/2022	2,500	06/16/1992	13,981	µmhos
Fluoride	64		48.30	03/09/2021	1.30	05/28/1991	27.53	mg/l
Hardness as	64		135.00	06/14/2008	6.00	08/30/1990	25.14	mg/l
Nitrate as N,	33		3.22	10/22/2013	0.00	05/24/2005	0.51	mg/l
Nitrate/Nitrite	33		4.14	10/22/2013	0.02	09/27/2017	0.61	mg/l
Nitrite as N,	33		0.92	10/22/2013	U.02	05/21/2007	0.01	mg/l
Nitrogen,	33		7.90	11/06/2014	1.17	09/15/1992	4.11	mg/l
Nitrogen,	33		46.00	06/14/2008	0.50	08/22/1990	7.34	mg/l
	33							
Nitrogen, Total	<u> </u>		51.00 9.20	06/14/2008	1.90	08/22/1990 06/30/1995	11.01 8.65	mg/l
pH, lab	31		9.20 155.00	06/16/1992 05/21/2007	8.30 0.17	09/15/1992		units
Phosphate,							16.18	mg/l
Phosphorus,	34		9.63	03/15/2022	0.05	09/15/1992	2.06	mg/l
SAR in Water	54		1,600.00	03/15/2022	88.89	03/25/1992	420.73	none
Sulfate	63		2,031.00	09/16/1991	2.50	06/18/1996	169.18	mg/l
Sulfide	33		3.31	08/30/1990	U	07/31/1991	0.57	mg/l
Total Dissolved	63		30,400	03/15/2022	1,708	09/15/1992	11,079	mg/l
Conductivity,	81		36,320	03/09/2020	1,800	06/01/1991	13,480	µmhos
pH, Field	80		12.20	09/01/1990	7.86	11/07/2015	8.89	units
	Temperature	45	19.40	08/01/1990	7.50	12/01/1990	12.37	(°C)
Water Level,	58	424.00	03/15/2022	2 405.	03	04/01/2001	410.88	Ft.
Field		12 1100	00/10/2022			0 10 11 2001		
						1	1	1
Parameters	No. of	High	Date	Low	1	Date	Average	Units
Metals	Samples	•	00/45/0040		_	00/00/4004	•	//
Aluminum,	33	1.40	09/15/2010			06/23/1994	0.61	mg/l
Arsenic,	33	0.005	08/22/1990			09/15/1992	0.002	mg/l
Barium,	31	6.65	09/15/2010		8	09/15/1992	4.03	mg/l
Beryllium,	33	U	08/30/1990			03/09/2021	U	mg/l
Boron,	64	8.91	03/15/2022		3	02/26/1991	3.26	mg/l
Cadmium,	33	U	08/30/1990		_	03/09/2021	U	mg/l
Calcium,	64	44.00	06/14/2008			05/28/1991	3.45	mg/l
Chromium,	33	0.20	11/02/2015	5 0.0	1	06/23/1994	0.11	mg/l
O a market a m						0-1001000		
Copper,	33	0.31	03/09/2021	0.1	0	07/29/2009	0.20	mg/l
Iron, dissolved	33 33	0.31 1.82	03/09/2021 07/31/1991	1 0.1 1 0.0	0 4	06/23/1994	0.30	mg/l
Iron, dissolved Lead, dissolved	33 33 33	0.31 1.82 0.04	03/09/2021 07/31/1991 07/31/1991	I 0.10 I 0.04 I 0.05	0 4 2	06/23/1994 06/23/1994	0.30 0.03	mg/l mg/l
Iron, dissolved Lead, dissolved Lithium,	33 33 33 33 33	0.31 1.82 0.04 4.10	03/09/2021 07/31/1991 07/31/1991 03/09/2020	I         0.10           I         0.00           I         0.00           O         0.33	0 4 2 2	06/23/1994 06/23/1994 09/15/1992	0.30 0.03 2.22	mg/l mg/l mg/l
Iron, dissolved Lead, dissolved Lithium, Magnesium,	33 33 33 33 33 64	0.31 1.82 0.04 4.10 10.00	03/09/2021 07/31/1991 07/31/1991 03/09/2020 12/30/1996	1         0.10           1         0.00           1         0.01           0         0.33           6         1.00	0 4 2 2 0	06/23/1994 06/23/1994 09/15/1992 06/16/1992	0.30 0.03 2.22 4.58	mg/l mg/l mg/l mg/l
Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese,	33 33 33 33 64 33	0.31 1.82 0.04 4.10 10.00 0.07	03/09/2021 07/31/1991 07/31/1991 03/09/2020 12/30/1996 05/26/1999	I         0.1           I         0.0           I         0.03           S         1.00           O         0.03	0 4 2 2 0	06/23/1994 06/23/1994 09/15/1992 06/16/1992 06/23/1994	0.30 0.03 2.22 4.58 0.04	mg/l mg/l mg/l mg/l mg/l
Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury,	33 33 33 33 64 33 33 33	0.31 1.82 0.04 4.10 10.00 0.07 U	03/09/2021 07/31/1991 07/31/1991 03/09/2020 12/30/1996 05/26/1999 08/30/1990	I         0.1(           I         0.0           I         0.03           O         0.33           S         1.00           O         0.00           O         0.00	0 4 2 2 0	06/23/1994 06/23/1994 09/15/1992 06/16/1992 06/23/1994 03/09/2021	0.30 0.03 2.22 4.58 0.04 U	mg/l mg/l mg/l mg/l mg/l
Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum,	33 33 33 33 64 33 33 33 33	0.31 1.82 0.04 4.10 10.00 0.07 U 0.10	03/09/2021 07/31/1991 07/31/1991 03/09/2020 12/30/1996 05/26/1999 08/30/1990 06/23/1994	I         0.10           I         0.00           I         0.01           O         0.33           S         1.00           O         0.00           O         0.01           O         0.02           O         0.02           O         0.02           O         0.02           O         0.02           O         0.02           O         U	0 4 2 2 0	06/23/1994 06/23/1994 09/15/1992 06/16/1992 06/23/1994 03/09/2021 03/09/2021	0.30 0.03 2.22 4.58 0.04 U U	mg/l mg/l mg/l mg/l mg/l mg/l
Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel,	33 33 33 33 64 33 33 33 33 33 33	0.31 1.82 0.04 4.10 10.00 0.07 U 0.10 0.02	03/09/2021 07/31/1991 07/31/1991 03/09/2020 12/30/1996 05/26/1999 08/30/1990 06/23/1992 06/23/1992	1         0.10           1         0.00           1         0.01           0         0.33           5         1.00           9         0.00           0         0.01           1         0.01           2         0.01           4         U	0 4 2 2 0 1	06/23/1994 06/23/1994 09/15/1992 06/16/1992 06/23/1994 03/09/2021 03/09/2021 03/09/2021	0.30 0.03 2.22 4.58 0.04 U U U	mg/l mg/l mg/l mg/l mg/l mg/l
Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium,	33 33 33 33 64 33 33 33 33 33 64	0.31 1.82 0.04 4.10 10.00 0.07 U 0.10 0.02 26.00	03/09/2021 07/31/1991 07/31/1991 03/09/2020 12/30/1996 05/26/1999 08/30/1990 06/23/1994 06/23/1994 06/30/2009	$\begin{array}{c ccccc} 1 & 0.10 \\ 1 & 0.00 \\ 1 & 0.01 \\ 0 & 0.30 \\ \hline 0 & 0.00 \\ \hline 0 & 0 & 0 \\ \hline 0 &$	0 4 2 2 0 1	06/23/1994 06/23/1994 09/15/1992 06/16/1992 06/23/1994 03/09/2021 03/09/2021 03/09/2021 08/30/1990	0.30 0.03 2.22 4.58 0.04 U U U 9.38	mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium,	33 33 33 33 64 33 33 33 33 33 33	0.31 1.82 0.04 4.10 10.00 0.07 U 0.10 0.02	03/09/2021 07/31/1991 07/31/1991 03/09/2020 12/30/1996 05/26/1999 08/30/1990 06/23/1994 06/23/1994 06/30/2009 07/31/1991	$\begin{array}{c ccccc} 1 & 0.10 \\ 1 & 0.00 \\ 1 & 0.01 \\ 0 & 0.30 \\ \hline 0 & 0.00 \\ \hline \end{array}$	0 4 2 0 1 1 0 0	06/23/1994 06/23/1994 09/15/1992 06/16/1992 06/23/1994 03/09/2021 03/09/2021 03/09/2021 03/09/2021 08/30/1990	0.30 0.03 2.22 4.58 0.04 U U U	mg/l mg/l mg/l mg/l mg/l mg/l
Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica, dissolved	33         33         33         33         64         33         33         33         33         33         33         33         33         33         33         33         33         64         33         64         33         64         33         64	0.31 1.82 0.04 4.10 10.00 0.07 U 0.10 0.02 26.00 0.002 34.00	03/09/2021 07/31/1991 07/31/1991 03/09/2020 12/30/1996 05/26/1999 08/30/1990 06/23/1992 06/23/1992 06/30/2009 07/31/1991 11/20/2001	$\begin{array}{c cccc} 1 & 0.10 \\ 1 & 0.00 \\ 1 & 0.01 \\ 0 & 0.31 \\ 0 & 0.31 \\ 0 & 0.31 \\ 0 & 0.31 \\ 0 & 0.31 \\ 0 & 0.31 \\ 0 & 0.31 \\ 0 & 0.01 \\ 0 & 0.01 \\ 0 & 0.01 \\ 0 & 0.001 \\ 1 & 0.001 \\ 1 & 1.50 \\ 0 & 0.01 \\ 0 & 0.01 \\ 0 & 0.001 $	0 4 2 0 1 1 0 0 11 0	06/23/1994 06/23/1994 09/15/1992 06/16/1992 06/23/1994 03/09/2021 03/09/2021 03/09/2021 03/09/2021 08/30/1990 08/30/1990 02/26/1991	0.30 0.03 2.22 4.58 0.04 U U 9.38 0.002 17.30	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica, dissolved Sodium,	33         33         33         33         64         33         33         33         33         33         33         33         33         33         64         33         64         33         64         33         64         64         64         64         64         64         64         64	0.31 1.82 0.04 4.10 10.00 0.07 U 0.10 0.02 26.00 0.002 34.00 9,280	03/09/2021 07/31/1991 07/31/1991 03/09/2020 12/30/1999 05/26/1999 06/23/1994 06/23/1994 06/23/1994 06/30/2009 07/31/1991 11/20/2001 03/09/2020	$\begin{array}{c ccccc} 1 & 0.10 \\ 1 & 0.00 \\ 1 & 0.01 \\ 0 & 0.31 \\ 0 & 0.31 \\ 0 & 0.31 \\ 0 & 0.31 \\ 0 & 0.31 \\ 0 & 0.31 \\ 0 & 0.31 \\ 0 & 0.01 $	0 4 2 0 1 1 0 0 11 0 0	06/23/1994 06/23/1994 09/15/1992 06/16/1992 06/23/1994 03/09/2021 03/09/2021 03/09/2021 03/09/2021 08/30/1990 08/30/1990 02/26/1991 05/28/1991	0.30 0.03 2.22 4.58 0.04 U U 9.38 0.002 17.30 4,292	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica, dissolved Sodium, Strontium,	33         33         33         33         64         33         33         33         33         33         33         64         33         64         33         64         33         64         64         64         64         64         64         64         64         64         64         64         64         64	0.31 1.82 0.04 4.10 10.00 0.07 U 0.10 0.02 26.00 0.002 34.00 9,280 2.58	03/09/2021 07/31/1991 07/31/1991 03/09/2020 12/30/1996 05/26/1999 06/23/1994 06/23/1994 06/23/1994 06/30/2009 07/31/1991 11/20/2001 03/09/2020 03/26/1997	$\begin{array}{c ccccc} 1 & 0.10 \\ 1 & 0.00 \\ 1 & 0.01 \\ 0 & 0.02 $	0 4 2 0 1 1 0 0 11 0 0	06/23/1994 06/23/1994 09/15/1992 06/16/1992 06/23/1994 03/09/2021 03/09/2021 03/09/2021 03/09/2021 08/30/1990 08/30/1990 02/26/1991 05/28/1991 06/16/1992	0.30 0.03 2.22 4.58 0.04 U U 9.38 0.002 17.30	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l
Iron, dissolved Lead, dissolved Lithium, Magnesium, Manganese, Mercury, Molybdenum, Nickel, Potassium, Selenium, Silica, dissolved Sodium,	33         33         33         33         64         33         33         33         33         33         33         33         33         33         64         33         64         33         64         33         64         64         64         64         64         64         64         64	0.31 1.82 0.04 4.10 10.00 0.07 U 0.10 0.02 26.00 0.002 34.00 9,280	03/09/2021 07/31/1991 07/31/1991 03/09/2020 12/30/1999 05/26/1999 06/23/1994 06/23/1994 06/23/1994 06/30/2009 07/31/1991 11/20/2001 03/09/2020	$\begin{array}{c ccccc} 1 & 0.10 \\ 1 & 0.00 \\ 1 & 0.01 \\ 0 & 0.02 $	0 4 2 2 0 1 1 0 1 0 0 0 0 0 0 8	06/23/1994 06/23/1994 09/15/1992 06/16/1992 06/23/1994 03/09/2021 03/09/2021 03/09/2021 03/09/2021 08/30/1990 08/30/1990 02/26/1991 05/28/1991	0.30 0.03 2.22 4.58 0.04 U U 9.38 0.002 17.30 4,292	mg/l mg/l mg/l mg/l mg/l mg/l mg/l mg/l

#### Table 40: MMC-IRI-7 Annual Dissolution Surface Aquifer

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Well (Crewned Level (ff)			Depth to W	ater Level	ft.	
Well / Ground Level (ft)	2017	2018	2019	2020	2021	20
MMC-IRI-11 / 6613.6	466.90	467.60	468.00	468.30	468.80	469
*MWU-2 / 6441.0	195.40	195.38	197.50	195.90	196.00	196
*MWA-2 / 6441.0	199.60	199.60	199.40	199.40	199.60	200
*MWB-2 / 6441.0	254.80	256.13	255.40	256.00	257.20	257
*MWD-1 / 6467.0	329.30	329.60	329.50	329.90	329.70	330
*MWD-2 / 6641.0	253.50	254.54	254.30	254.80	254.70	255
TH75-6A	298.10	297.21	296.40	298.56	298.65	299
TH75-6B	295.50	295.28	294.30	295.93	295.94	296
TH75-11A	413.70	413.80	413.80	413.03	411.27	404
TH75-11B	494.80	495.00	494.80	495.55	496.02	485

#### Table 41: Summary of 2022 Annual Remote Water Levels



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## 2022

# Appendix B Potentiometric Surface Maps (Confidential)

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January 2023



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# Appendix C

# 2022 Vegetation Monitoring Reclamation Status Report

# Prepared

## By

# **Rusty Roberts**



January 2023

#### Reclamation Status Report 2022 Vegetation Monitoring Results for Reclaimed Sites

Evaluating Status of Current Plant Communities on Six Reclaimed Sites in meeting Criteria for Successful Reclamation

> Prepared for: Natural Soda Rifle, Colorado

Prepared by: Rusty Roberts Meeker, Colorado

December 2022

#### **Table of Contents**

Introduction	1
Criteria for Successful Reclamation of Disturbed Areas	1
Vegetation Sampling Methods Utilized to Measure Criteria for Successful Reclamation	1
Summary of Results for Reclaimed Sites in Achieving Reclamation Goals	3
Vegetation Sampling Methods and Procedures for Reclaimed Sites and Reference Areas	3
Vegetation Sampling Results for Nearby Native Rangeland Reference Areas	5
Monitoring Results and Evaluation of Criteria for Sites in Final Reclamation Status	6
Well Pad 93-2M	6
Pad BI -8	8
Corehole Pad G	10
Corehole Pads IRI-3, MW-1, PW-1, PW-2	12
Corehole Pad T	14
Corehole Pad U	16
Location Map:	18
Appendix A – Vegetation Sampling Data Native Rangeland Reference Areas	20
Table A1 - Vegetation Cover, Species Composition, Species Density & Ground Cover	20
Table A2 - Canopy Gap Intercept Data	21
Table A3 - Transect Coordinates	21
Transect Photos Native Rangeland Reference Areas	21
Appendix B - Vegetation Sampling Data Reclaimed Well Pad 93-2M	23
Table B1 - Vegetation Cover, Species Composition, Species Density & Ground Cover	23
Table B2 - Canopy Gap Intercept Data	23
Table B3 - Transect Coordinates	24
Transect Photos Reclaimed Pad 93-2M	24
Appendix C - Vegetation Sampling Data Reclaimed Pad BI -8	25
Table C1 - Vegetation Cover, Species Composition, Species Density & Ground Cover	25
Table C2 - Canopy Gap Intercept Data	25
Table C3 - Transect Coordinates	26
Transect Photos – Reclaimed Pad BG-8	26
Appendix D - Vegetation Sampling Data Reclaimed Corehole Pad G	27
Table D1 - Vegetation Cover, Species Composition, Species Density & Ground Cover	27
Table D2 - Canopy Gap Intercept Data	28
Table D3 - Transect Coordinates	28
Transect Photos Reclaimed Corehole Pad G	29

Appendix E - Vegetation Sampling Data Reclaimed Corehole Pads IRI-3, MW1, PW1, PW2	30
Table E1 - Vegetation Cover, Species Composition, Species Density & Ground Cover	30
Table E2 - Canopy Gap Intercept Data	30
Table E3 - Transect Coordinates	31
Transect Photos Reclaimed Corehole Pads IRI3, MW1, PW1, PW2	31
Appendix F – Vegetation Sampling Data Reclaimed Corehole Pad T	32
Table F1 - Vegetation Cover, Species Composition, Species Density & Ground Cover	32
Table F2 - Canopy Gap Intercept Data	32
Table F3 - Transect Coordinates Locations	33
Transect Photos Reclaimed Corehole Pad T	33
Appendix G – Vegetation Sampling Data Reclaimed Corehole Pad U	34
Table G1 - Vegetation Cover, Species Composition, Species Density & Ground Cover	34
Table G2 - Canopy Gap Intercept Data	34
Table G3 - Transect Coordinates	34
Transect Photos Reclaimed Corehole Pad U	35

#### Introduction

The Bureau of Land Management (BLM) and the State of Colorado require reclaimed lands to be revegetated in a manner that establishes a diverse, effective, and long-lasting vegetation cover that is equal or nearly so to the natural vegetation of the surrounding areas. Natural Soda's approved mine plan requires periodic monitoring to evaluate the success of revegetation efforts.

Vegetation cover, species composition, species density and ground cover data were collected from undisturbed reference area sites on Natural Soda's lease area near their current mining operations. The data collected from undisturbed areas is used as a baseline for evaluation of the vegetation cover, species composition, species density and ground cover data collected from reclaimed sites to determine if a site has met the criteria for successful reclamation.

Vegative data was collected between September 20 thru September 26, 2022, for six reclaimed pad sites in final reclamation status and for four undisturbed areas. The baseline data from undisturbed areas was collected from four native rangeland reference area sites on Natural Soda's lease area near the reclaimed sites being evaluated. Table 1 lists the six sites in final reclamation status for which data was collected in 2022.

#### Criteria for Successful Reclamation of Disturbed Areas

The approved criteria for successful reclamation must reflect a plant community of at least five desirable plant species where no one species may exceed 70 percent relative cover and desired foliar cover, bare ground, and shrub and/or forb density must have 80 percent similarity in relation to the identified desired plant community.

The desired plant community referenced in the criteria refers to an ecological site present at or near the area of disturbance. Two ecological sites occur on the parts of the lease area being actively mined, a pinyon and juniper woodland site and a rolling loam rangeland site. The vegetative values in the criteria are based on the capability of a site in an early seral plant community, which is basically an herbaceous species dominated site with varying amounts of shrub species. The rolling loam rangeland site reflects more of the capability of a site in an early seral plant community, thus, data collected from the four-rolling loam native rangeland reference areas were used to evaluate the success of the plant community on each reclaimed site in achieving the reclamation criteria.

#### Vegetation Sampling Methods Utilized to Measure Criteria for Successful Reclamation

Data was collected based upon recommendations in White River Field Office's Surface Reclamation Plan which require that vegetation cover, composition, and diversity data be gathered using quantitative methods to measure the six Core Terrestrial Indicators and Methods in BLM Technical Note 440. BLM approved sampling methods are found in Monitoring Manual for Grassland, Shrubland, and Savanna Ecosystems, Volume I and II: Quick Start.

The six core terrestrial indicators include:

- (1) <u>Bare Ground</u>: The amount of bare ground is accepted as one of the most sensitive indicators of resource condition in rangelands. A large percentage of bare ground can be an indicator of high erosion potential, low forage production, poor wildlife habitat, and increased risk of invasion by nonnative plant species.
- (2) <u>Vegetation Composition</u>: Vegetation composition data, including the cover of groups of species are indicators generated from the same data, and when used together, are sensitive to most changes and are useful when determining the status of key species in a plant community.
- (3) <u>Nonnative Invasive Plant Species</u>: The presence and cover of nonnative species is acquired as a component of vegetation composition. Nonnative invasive species can have the ability to significantly alter sustainability and site resilience.
- (4) <u>Plant Species of Management Concern</u>: The presence and cover of plant species of management concern is also acquired as a component of vegetation composition. Plant species of management concern can be sensitive to site disturbance, provide important ecosystem functions, or contribute to biological diversity.
- (5) <u>Vegetation Height</u>: The vertical structure of vegetation which can be used to characterize wildlife habitat and estimate wind erosion potential.
- (6) <u>Proportion of Soil Surface in Large Intercanopy Gaps</u>: Canopy gap intercept measures the proportion of a line covered by large gaps between plant canopies and is an important indicator of the potential for erosion.

Line-point intercept with plot-level species inventory was the vegetation monitoring technique used to measure the core indicators of bare ground, vegetation composition, non-native invasive plant species and plant species of management concern.

Line-point intercept is a rapid, accurate method for quantifying soil cover, including vegetation, litter, rocks and biological crusts. The theory behind this method is that if an infinite number of points are placed in a two-dimensional area, the cover of a plant species can be determined by counting the number of points that hit that species. These measurements are related to wind and water erosion, water infiltration, and the ability of the site to resist and recover from disturbance.

Gap intercept measurements were made along the line-point intercept transect line to provide information about the proportion of the line covered by large gaps between plants. Large gaps between plant canopies are important indicators of increased susceptibility to water erosion and runoff, wind erosion, weed invasion, and wildlife habitat.

A plot-level plant species inventory provides a rapid estimate of species richness. A search area at each site was utilized to record all plant species occurring within the plot. A thorough search of the plot can detect less-frequently occurring species that may not have been recorded in line-point intercept cover measurements.

Shrub and forb densities also a criterion for successful reclamation are not measured by the sampling methods used for the other criteria. Forb and shrub density measurements were taken from one-meter square density quadrants along the same line-point intercept transect line used for the other sampling techniques.

#### Summary of Results for Reclaimed Sites in Achieving Reclamation Goals

Vegetation cover, plant species composition, ground cover and shrub and forb density data were collected from the six well pad sites in final reclamation status and from four native rangeland reference area sites near the reclaimed sites being evaluated. Data was collected between September 20 thru September 26, 2022. Table 1 lists the sites in final reclamation status for which data was collected in 2022. The location of sites from which vegetative data was collected are illustrated on the attached location map.

Table 1 is a summary of the progress of each site monitored in achieving successful reclamation. The site-specific monitoring results for each site are discussed in detail later.

Table 1 - Summary of Results for Reclaimed Sites in Achieving Successful Reclamation Criteria										
	- 4 1 4 (°		ccessful Reclam			1/				
	species where n	desirable plant to one species may ent relative cover	desired folia density must values measu							
	the number of desired plant species present	the relative cover of the desired species with the greatest cover	% similarity of desired foliar cover	% similarity of bare ground	% similarity of shrub density	% similarity of forb density	Criteria			
Site		2022 Data Colle	ected for Sites in	Final Reclamat	tion Status		Met			
Pad										
93-2M	15 species	18.7%	82%	98%	57%	7%	No			
Pad BG-8	18 species	14.0%	76%	96%	29%	2.4%	No			
Pad G	32 species	12.0%	75%	90%	60%	60%	No			
Pads IRI-3+	22 species	20.7%	80%	70%	44%	23%	No			
Pad T	21 species	9.3%	46%	105%	86%	38%	No			
Pad U	12 species	8.7%	39%	79%	52%	10%	No			
	20	22 Baseline Data Co	ollected from Na	tive Rangeland	<b>Reference</b> Area	S				
	33 species	26.4%	56.5%	27.5%	1.74%	5.03%				
Note: val	lues in red are belo	ow the criteria require	ed for successful	reclamation						

#### Vegetation Sampling Methods and Procedures for Reclaimed Sites and Reference Areas

The line-point intercept with plot-level species inventory was the vegetation sampling protocol used on both the reclaimed sites and associated reference areas. The procedure involves random placement of a transect line (measuring tape) as the base for data collection. Values for foliar cover, basal cover, species composition and bare ground were measured at specific points along the line. Gaps in vegetation canopy were measured along the same tape line. Density quadrants were placed adjacent the line at specific points.

A 25-meter tape was used as the baseline transect for collecting data from the 4 rolling loam reference areas and from the 6 reclaimed sites. One transect line was used to collect data from each of the 4 reference areas. Three transect lines were used to collect data from each of the 6 reclaimed sites.

The following techniques were used to collect the sample data:

- The beginning and ending points of each transect were recorded using a GPS receiver. Azimuths from the 0-meter to the 25-meter point were recorded.
- Photographs were taken at each transect that show vegetation features at the time of sampling.
- Point count data were collected at one half-meter intervals along a 25-meter tape using a thin, straight metal rod (pin flag) for a total of fifty samples taken along each transect.
  - The first plant species in the canopy hit by the drop of a pin flag at each sample point was recorded by species in the "Top Layer". The total of top layer hits was used to determine total foliar cover for the study site and the total foliar cover for each species hit in the top layer.
  - Subsequent plant species encountered at each sample point and vegetative litter hits were recorded in the "Lower Canopy Layers". Vegetative litter was recorded as either unattached herbaceous or woody litter.
  - Species composition based upon total of all plant species encountered in the top layer and the lower layers at each sample point and recorded by species and summarized by plant group.
  - Soil surface hits were recorded as plant species basal intercepts, lichen crust, moss, embedded litter, duff, rock, or bare soil. Bare ground percent was determined by a bare soil hit with no canopy intercepts in the top and lower canopy layers.
- Canopy gaps were recorded directly below the transect tape line. Only perennial plant species were used in the vegetative canopy. Non-native species if present were not included as part of the canopy. Gaps larger than 20 centimeters were recorded for the length of each transect. Gaps were totaled into gap sizes (21 to 50; 51 to 100; 101 to 200; >200). Though the gap data is not used in evaluating reclamation criteria, it was collected as a visualization of perennial species distribution and cover.
- Forb and shrub density data were taken from one-meter square density quadrants alongside the same line-point intercept transect line used for the other sampling techniques. Quadrants were placed at every 5<sup>th</sup> sample point along the transect tape for a total of 10 one-meter density quads for each transect. Only desirable forb and shrub densities are required in the criteria for successful reclamation. The total number of desirable forb and shrub species rooted in each quad were counted and recorded by species and summarized by plant group. Densities for grasses or trees were not collected.
- A plot-level plant species inventory was conducted within a search area at each site. The search area for reclaimed sites was within the original disturbance at the site. In addition to those plant species recorded during sampling, other species not encountered during sampling but were observed in the sample area were recorded for species richness.

#### Vegetation Sampling Results for Nearby Native Rangeland Reference Areas

Vegetation cover, species composition, species density and ground cover data were collected from four rolling loam rangeland sites from September 20 thru September 26, 2022. Transects were established in the 4 rolling loam sites which represent the site characteristics near the reclaimed sites being evaluated. The vegetative data collected from the 4 reference areas were used to evaluate the success of the plant community on each reclaimed site in achieving the reclamation criteria.

Values for foliar cover, basal cover, species composition and bare ground were collected from four 25 meter transects for a total of 200 sample points. Values for forb and shrub densities were collected from 40 one-meter square quadrants. Table 2 summarizes the data collected in 2022 from the 4 reference areas. A comparison to the data collected in 2021 is included in the table.

	Table 2- Rolling Loam Native Rangeland Reference Areas Vegetation Cover, Species Composition, Species Density & Ground Cover											
	8		Line-Point Canopy Intercept Data <sup>1</sup> Density Data <sup>2</sup>									Data <sup>2</sup>
			Numb Spe				% B Cov		Spe Compo		Forb/Shrub Density (#/m <sup>2</sup> )	
Plant C	Froup		2021	2022	2021	2022	2021	2022	2021	2022	2021	2022
Perennial Grasse	s		5	5	40.4	38.5	6.8	6.5	71.52	63.45	n/a	n/a
Invasive Non-Na	Invasive Non-Native Grasses		1	1	1.6	4.0	0	0	2.42	6.90	n/a	n/a
Desirable Forbs			17	22	2.4	4.50	0	0	3.64	8.97	5.98	5.03
Invasive and Nor	n-Native F	orbs	0	1	0	0	0	0	0	0	n/a	n/a
Shrubs			5	5	14.4	13.5	0.4	0.5	22.42	20.68	1.84	1.74
Vegetation Tota	ls		28	34	58.8	60.5	7.2	7.0	100.0	100.0	7.82	6.77
			Line	Point Ir	tercept	Soil Surfa	ice Cover	· Data <sup>3</sup>				
Percent					He	rbaceous						
Cover by	Bare G	round	Bio	tic Crus	t	Litter	Woo	dy Litter	I	Duff	Re	ock
v	2021	2022	2021	202	2 202	1 2022	2021	2022	2021	2022	2021	2022
Туре	34.8	27.5	0.	0 2	.5 37.	6 38.	0 0.8	2.5	0.0	0.0	0.0	0.0
<sup>1</sup> Sum of data fro	m 4 rando	mly pla	ced tran	sects wit	h 50 sam	ple points	collected	from eac	h transec	t. Foliar c	over base	ed upon

<sup>1</sup> sum of data from 4 randomly placed transects with 50 sample points conjected from each transect. For ar cover based upon 1<sup>st</sup> plant species encountered in the canopy at each sample point. Species composition based upon total of all plant species encountered at each sample point.

<sup>2</sup> Sum of density data collected from ten 1-meter square quadrants along each transect. Only desirable forb and shrub densities were recorded based upon reclamation criteria.

<sup>3</sup> Percentages are not cumulative with vegetation totals, rather a measure by layer of ground cover from the top layer thru the lower layers to the soil surface. Values for bare ground have no vegetative, litter or rock cover above the soil surface.

The data collected from the 4 reference areas showed a 3 percent increase in total foliar cover in 2022. However, small declines in total cover and composition of desirable species occurred as compared to the values measured in 2021. Foliar cover of native species measured on the reference sites declined one percent in 2022. Foliar cover of perennial grasses declined 4.7 percent and shrub cover declined 6 percent. The cover of desirable forbs increased 88 percent from values measured in 2021. The foliar cover of invasive nonnative grasses doubled in 2022. from the values measured in 2021.

There was a 21 percent decline in the amount of bare ground measured in 2022 because of a one percent increase in amount of herbaceous litter and the three percent increase in total foliar cover. The canopy gaps between perennial species also an indicator of ground cover, declined only 2 percent in 2022.

The specific vegetation sampling data collected from the 4 rolling loam rangeland sites are presented in Appendix A. Data in the appendix include (1) vegetation cover, ground cover, species composition, and forb and shrub densities; (2) the scientific and common names of each plant species encountered; (3) GPS coordinate data for the transect start and end points; (4) intercanopy gaps and (5) photographs of each transect.

#### Monitoring Results and Evaluation of Criteria for Sites in Final Reclamation Status

Vegetation cover, species composition, species density and ground cover data were collected from the area of disturbance for 6 sites in final reclamation status (pads 93-2M, BG-8 and corehole pads G, IRI-3+, T and U). Locations are noted on the attached location maps.

Vegetation sampling data collected for the 6 reclaimed sites are presented in the Appendix B through Appendix G.

- Appendix B reclaimed pad 93-2M.
- Appendix C reclaimed pad BG-8.
- Appendix D reclaimed corehole pad G.
- Appendix E combined reclaimed corehole pads IRI-3, MW-1, PW-1, PW-2.
- Appendix F reclaimed corehole pad T.
- Appendix G reclaimed corehole pad U.

Vegetation sampling data in the appendixes include (1) vegetation cover, ground cover, species composition, and forb and shrub densities; (2) the scientific and common names of each plant species encountered; (3) GPS coordinate data for the transect start and end points; (4) intercanopy gaps and (5) photographs of each transect.

#### Well Pad 93-2M

Data was collected for this site on September 23, 2022. Three 25 meter transects were placed in a spoke pattern on the pad with 50 sample points on each transect for a total of 150 points for cover data. Ten one-meter square density quadrants were placed along each transect for a total of 30 quadrants. Data collected from this site include vegetative foliar and basal cover, species composition, forb and shrub densities all summarized by plant group. In addition, ground cover data was collected for dead vegetative litter, bare ground, and surface rock.

The data collected in 2022 is summarized in Table 3 from the sampling data presented in Appendix Table B1. Each plant species encountered at this site is listed in Table B1. As shown in Table B1 there is a good establishment of the perennial grasses with uniform distribution across much of the site.

	vegetation Cover		Reclaimed			ity & Grow	nd Co	over		
	egetation cover		-Point Can						y Data <sup>2</sup>	
Plant	Group	Number of Species	% Foliar Cover	% Ba Cove		-	Species omposition		irable /Shrub y (#/m²)	
Perennial Grass	ses	8	39.4		6.0	65	.96		n/a	
Invasive Non-N	Native Grasses	1	8.0		0.0	19	.15		n/a	
Desirable Forb	S	3	0.7		0.0	1	.06		0.33	
Invasive and N	on-Native Forbs	1	2.7		0.0	4	.26	26 r		
Shrubs		4	6.0		0.0	9	.57	1.00		
Vegetation To	tals	17	56.8		6.0	10	0.0		1.33	
	Line	e-Point Interc	ept Soil Su	rface C	over	Data <sup>3</sup>				
Percent Cover by	Bare Ground	<b>Biotic Crus</b>	Herbao t Litt		Wo	ody Litter	1	Duff	Rock	
Туре	28.0	0.	0	56.3		1.3		0.0	0.0	
transect. Foliar Species compo	<sup>1</sup> Sum of data from 3 randomly placed 25 meter transects with 50 sample points collected from each transect. Foliar cover based upon 1 <sup>st</sup> plant species encountered in the canopy at each sample point. Species composition based upon total of all plant species encountered at each sample point. <sup>2</sup> Sum of density data collected from ten 1-meter square quadrants along each transect. Only desirable									
forb and shrub <sup>3</sup> Percentages a the top layer th	densities were rec re not cumulative ru the lower layer ve the soil surface	corded based u with vegetations to the soil su	pon reclam	ation cri ther a m	iteria easu	re by layer o	of gro	und cove	er from	

The foliar cover of desirable species on the site was 18 percent less than that measured on the reference areas. In comparison with values measured on the reference areas, the cover of perennial grasses was 2 percent greater, and their composition was 4 percent greater. The cover and composition of cheatgrass, a non-native invasive species, was two-times greater than measured on the reference areas.

Both the cover and composition of desirable forbs and shrubs well below that on the reference areas, only 15 percent for forbs and 44 percent for shrubs. The density of desirable forbs on the site was 7 percent and the density of shrubs was 57 percent of that on reference areas.

The amount of bare ground on this site was 2 percent greater than that measured on the reference areas. The amount of herbaceous litter on this site was 26 percent less than that on the reference areas. The canopy gaps between perennial species were 13 percent larger on the reference areas than measured on this site.

Table 4 is a comparison of the data collected for reclaimed well pad 93-2M with that of the rolling loam rangeland reference areas. Only the data required to access the success of achieving successful reclamation is used in Table 4.

Table 4 – Compar	ison of Reclamatio	on Criteria Elem	ents with Nativ	ve Rangeland Refe	rence Areas
Site	# desired plant species	% desired foliar cover	% bare ground	shrub density (#/m <sup>2</sup> )	forb density (#/m <sup>2</sup> )
Reclaimed Pad 93-2M	15 species	46.0	28.0	1.00	0.33
Reference Area <sup>1</sup>	33 species	56.5	27.5	1.74	5.03
<sup>1</sup> The average of four na reclamation criteria.	tive rangelands refe	erence areas wer	e used as the ba	seline for evaluatin	g success of the

#### Evaluation of the reclamation efforts of the disturbance on Well Pad 93-2M:

- There are 15 desirable plant species established on the site (8 perennial grasses, 3 desirable forbs, and 4 shrubs) meeting the requirement of at least five plant species.
- Russian wildrye (*Psathyrostachys juncea*) was the desired species with the greatest relative cover at 18.7 percent meeting the requirement that no one species can exceed 70 percent relative cover.
- The foliar cover of desirable species on the site was 82 percent of that on the native rangeland reference area exceeding the requirement of 80 percent similarity.
- The amount of unprotected bare ground on the site was 2 percent greater than that on the native rangeland reference area which equates to 98 percent similarity, exceeding the required 80 percent similarity.
- The density of desirable forbs and shrubs on the site in comparison with the native rangeland reference areas was 7 percent and 57 percent, respectively. Neither forb density nor shrub density have met the requirement of 80 percent similarity.

The plant community does meet the criteria for species diversity, desired foliar cover, and the amount of bare ground. The site does not meet the criteria for the densities of desirable forbs or shrubs. This site does not meet all the criteria for successful reclamation of the disturbance at the site.

#### Pad BG-8

Data was collected for this site on September 23, 2002. Three 25 meter transects were placed in a spoke pattern on the pad with 50 sample points on each transect for a total of 150 points for cover data. Ten one-meter square density quadrants were placed along each transect for a total of 30 quadrants. Data collected from this site include vegetative foliar and basal cover, species composition, forb and shrub densities and ground cover all summarized by plant group. In addition, ground cover data was collected for dead vegetative litter, bare ground, and surface rock.

The data collected in 2022 is summarized in Table 5 from the sampling data presented in Appendix Table C1. Each plant species encountered at this site is listed in Table C1.

Vegetation Cover,		- Reclaimed nposition, S		ity & Ground C	over
	Line	e-Point Can	opy Interce	ot Data <sup>1</sup>	Density Data <sup>2</sup>
	Number of	% Foliar	% Basal	Species	Desirable Forb/Shrub
Plant Group	Species	Cover	Cover	Composition	Density (#/m <sup>2</sup> )
Perennial Grasses	9	41.4	12.0	66.00	n/a
Invasive Non-Native Grasses	1	4.7	0.0	8.00	n/a
Desirable Forbs	5	0.0	0.0	0.0	0.12
Invasive and Non-Native Forbs	1	14.0	0.0	24.00	n/a
Shrubs	4	1.4	0.0	2.00	0.50
Vegetation Totals	20	61.5	12.0	100.0	0.62

Line-Point Intercept Soil Surface Cover Data <sup>3</sup>											
Percent			Herbaceous								
Cover by	<b>Bare Ground</b>	<b>Biotic Crust</b>	Litter	Woody Litter	Duff	Rock					
Туре	28.7	0.0	31.3	2.0	0.0	1.3					
<sup>1</sup> Sum of data from 3 randomly placed 25 meter transects with 50 sample points collected from each											
transect. Foliar	cover based upor	1 <sup>st</sup> plant species	s encountered in	the canopy at each	h sample poir	ıt.					
Species compo	sition based upon	total of all plant	species encount	tered at each samp	ole point.						
<sup>2</sup> Sum of densit	ty data collected f	rom ten 1-meter	square quadrant	s along each trans	ect. Only desi	irable					
forb and shrub	densities were rea	corded based upo	on reclamation c	riteria.							
<sup>3</sup> Percentages a	re not cumulative	with vegetation	totals, rather a n	neasure by layer o	f ground cove	er from					
the top layer th	ru the lower layer	s to the soil surfa	ace. Values for b	pare ground have r	no vegetative,	litter or					
rock cover abo	ve the soil surface	e.									

The foliar cover of desirable species on the site was 24 percent less than that measured on the reference areas. In comparison with values measured on the reference areas, the cover of perennial grasses was 7.5 percent greater, and their composition was 4 percent greater. No cover of desirable forbs was encountered in data collected for this site. Shrubs cover and composition was only 10 percent of that on the reference areas. The density of desirable forbs on the site was 2 percent and the density of shrubs was 29 percent of that on reference areas.

A sizeable area within the center of this site appeared to not have been seeded with any reclamation species. As a result, nearly 19 percent of the cover measured on this site came from non-native and invasive species. Cheatgrass (*Bromus tectorum*) accounted for 7.5 percent and Russian thistle (*Salsola tragus*) accounted for 22.7 percent of the cover measured on this site. The foliar cover of Russian thistle was greater than any of the perennial species on the site.

The amount of bare ground on this site was 4 percent greater than that measured on the reference areas. The amount of herbaceous litter on this site was 18 percent less than that on the reference areas. The canopy gaps between perennial species were 9 percent larger on the reference areas than measured on this site.

Table 6 is a comparison of the data collected for reclaimed Pad BG-8 with that of the rolling loam rangeland reference areas. Only the data required to access the success of achieving successful reclamation is used in Table 6.

Table 6 – Compar	Table 6 – Comparison of Reclamation Criteria Elements with Native Rangeland Reference Areas											
Site	# desired plant species	% desired foliar cover	% bare ground	shrub density (#/m <sup>2</sup> )	forb density (#/m <sup>2</sup> )							
Reclaimed Pad BG-8	18 species	42.8	28.7	0.50	0.12							
Reference Area <sup>1</sup>	33 species	56.5	27.5	1.74	5.03							
<sup>1</sup> The average of four na reclamation criteria.	tive rangelands refe	erence areas wer	e used as the ba	seline for evaluatin	g success of the							

#### Evaluation of the reclamation efforts of the disturbance on Pad BG-8:

• There are 18 desirable plant species established on the site (9 perennial grasses, 5 desirable forbs, and 4 shrubs) meeting the requirement of at least five plant species.

- Slender wheatgrass (*Elymus trachycaulus*) was the desired species with the greatest relative cover at 14 percent meeting the requirement that no one species can exceed 70 percent relative cover.
- The foliar cover of desirable species on the site was 76 percent of that on the native rangeland reference areas not meeting the requirement of 80 percent similarity.
- The amount of unprotected bare ground on the site was 4 percent greater than that on the native rangeland reference areas which equates to 96 percent similarity, meeting the required 80 percent similarity.
- The density of forbs and shrubs on the site in comparison with the native rangeland reference areas was 2 percent and 29 percent, respectively. Neither forb density nor shrub density have met the requirement of 80 percent similarity.

The plant community meets only the species diversity and bare ground criteria but not the desired foliar cover, shrub density and desirable forb density criteria necessary for successful reclamation of the disturbance at this site. This site does not meet all the criteria for successful reclamation of the disturbance at the site.

#### **Corehole Pad G**

Vegetation sampling data was collected on September 20, 2022. Three 25 meter transects were randomly placed on the pad with 50 sample points on each transect for a total of 150 points for cover data. Ten one-meter square density quadrants were placed along each transect for a total of 30 quadrants. Data collected from this site include vegetative foliar and basal cover, species composition, forb and shrub densities and ground cover all summarized by plant group. In addition, ground cover data was collected for dead vegetative litter, bare ground, and surface rock.

The 2022 data in the Table 7 is summarized from data presented in Appendix Table D1. Each plant species encountered at this site is listed in Table D1.

N	egetation Cover	Table 7 - Ro Species Cou				nd Cover	
		Line	e-Point Can	opy Interc	ept Data <sup>1</sup>	Densit	ty Data <sup>2</sup>
Plant	: Group	Number of Species	% Foliar Cover	% Basal Cover	Species Composit	Forb	irable /Shrub ty (#/m²)
Perennial Gras	ses	9	33.3	7.4	53	.62	n/a
Invasive Non-1	Native Grasses	1	3.3	0.0	8	.25	n/a
Desirable Forb	S	17	3.4	0.0	6	.18	3.00
Invasive and N	on-Native Forbs	1	13.3	0.0	23	.71	n/a
Shrubs		6	5.4	0.0	8	5.24	1.04
Vegetation To	otals	34	58.7	7.4	100	.00	4.04
	Line	e-Point Inter	cept Soil Su	rface Cove	er Data <sup>3</sup>		
Percent		Herbaceous					
Cover by	<b>Bare Ground</b>	Biotic Crus	st Litt	er W	oody Litter	Duff	Rock
Туре	30.7	0	.0	23.7	4.0	0.0	0.7

<sup>1</sup> Sum of data from 3 randomly placed 25 meter transects with 50 sample points collected from each transect. Foliar cover based upon 1<sup>st</sup> plant species encountered in the canopy at each sample point. Species composition based upon total of all plant species encountered at each sample point.
<sup>2</sup> Sum of density data collected from ten 1-meter square quadrants along each transect. Only desirable forb and shrub densities were recorded based upon reclamation criteria.
<sup>3</sup> Percentages are not cumulative with vegetation totals, rather a measure by layer of ground cover from the top layer thru the lower layers to the soil surface. Values for bare ground have no vegetative, litter or rock cover above the soil surface.

The foliar cover of desirable species on the site was 25 percent less than that measured on the reference areas. In comparison with values measured on the reference areas, the cover of perennial grasses was 13.5 percent lower, and their composition was 15.5 percent lower. The cover of desirable forbs on this site was 24 percent lower and their composition was 31 percent lower than on the reference areas. Shrubs cover and composition was only 40 percent of that on the reference areas. The density of desirable forbs and shrubs on the site were both 40 percent of that on reference areas.

Nearly 17 percent of the cover measured on this site came from non-native and invasive species. Cheatgrass (*Bromus tectorum*) accounted for 3.3 percent and Russian thistle (*Salsola tragus*) accounted for 13.3 percent of the cover measured on this site. The foliar cover of Russian thistle was greater than any of the perennial species on the site.

The amount of bare ground on this site was 12 percent greater than that measured on the reference areas. The amount of herbaceous litter on this site was 40 percent less than that on the reference areas. The canopy gaps between perennial species were 6 percent larger on the reference areas than measured on this site.

Table 8 is a comparison of the data collected for corehole pad G with that from the rolling loam rangeland reference areas. Only the data required to access the success of achieving successful reclamation is used in Table 8.

Table 8 – Comparison of Reclamation Criteria Elements with Native Rangeland Reference Areas											
Site	# desired plant species										
Corehole Pad G	32 species	42.1	30.7	1.04	3.00						
Reference Area 1         33 species         56.5         27.5         1.74         5.03											
<sup>1</sup> The average of four native rangelands reference areas were used as the baseline for evaluating success of the											

reclamation criteria.

#### Evaluation of the reclamation efforts of the disturbance on Corehole Pad G:

- There are 32 desirable plant species established on the site (9 perennial grasses, 17 desirable forbs, and 6 shrubs) meeting the requirement of at least five plant species.
- Slender wheatgrass (*Elymus trachycaulus*) was the desired species with the greatest relative cover at 12 percent meeting the requirement that no one species can exceed 70 percent relative cover.
- The foliar cover of desirable species on the site was 75 percent of that on the native rangeland reference areas, not meeting the required 80 percent similarity.

- The amount of unprotected bare ground on the site was 10 percent greater than that on the native rangeland reference areas which equates to 90 percent similarity, exceeding the required 80 percent similarity.
- The density of forbs and shrubs on the site in comparison with the native rangeland reference areas was 60 percent and 60 percent, respectively. Neither desirable forbs nor shrub densities have met the requirement of 80 percent similarity.

The plant community on this site does meet the criteria for species diversity and bare ground, but does not meet the desired foliar cover, desirable forb density nor shrub density criteria for successful reclamation of the disturbance. This site does not meet all the criteria for successful reclamation of the disturbance at the site.

#### Corehole Pads IRI-3, MW-1, PW-1, PW-2

This site includes corehole pads IRI-3, MW-1, PW-1, and PW-2. Vegetation sampling data was collected on September 20, 2022. Three 25 meter transects were randomly placed on the site with 50 sample points on each transect for a total of 150 points for cover data. Ten one-meter square density quadrants were placed along each transect for a total of 30 quadrants. Data collected from this site include vegetative foliar and basal cover, species composition, forb and shrub densities and ground cover all summarized by plant group. In addition, ground cover data was collected for dead vegetative litter, bare ground, and surface rock.

The 2022 data in the Table 9 is summarized from data presented in Appendix Table E1. Each plant species encountered at this site is listed in Table E1. As shown in Table E1 there is a good representation of the seeded species established on the site.

	Table 9 - Re	eclaimed Corel	ole Pads IR	I-3, MV	N-1, P	W-1, and PV	V-2			
V	egetation Cover						nd C	over		
		Line-Point Canopy Intercept Data <sup>1</sup>						Density Data <sup>2</sup>		
		Number						Desirable		
		of % Foliar % Basal Species			Forb/Shrub					
Plant	Plant Group		Cover	Cov	ver	Compositi	ion	Densit	y (#/m <sup>2</sup> )	
Perennial Grass	ses	9	42.7		6.1	83	.75		n/a	
Invasive Non-N	Native Grasses	1	6.0		0.0	11	.25		n/a	
Desirable Forb	S	9	0.0		0.0		0.0		1.14	
Invasive and N	vasive and Non-Native Forbs		1 0.0		0.0	0.0		n/a		
Shrubs		4	2.7		0.0	5.00			0.76	
Vegetation To	tals	24	51.4		6.1	10	0.0	1.90		
	Line	e-Point Interc	ept Soil Su	rface (	Cover	<sup>-</sup> Data <sup>3</sup>				
Percent			Herbac	ceous						
Cover by	<b>Bare Ground</b>	<b>Biotic Crus</b>	t Litt	er	Wo	ody Litter	]	Duff	Rock	
Туре	39.3	0.	0	31.3		0.6		0.0	1.3	
<sup>1</sup> Sum of data f	rom 3 randomly p	laced 25 mete	r transects v	with 50	samp	ole points col	llecte	d from e	ach	
transect. Foliar	cover based upon	1 <sup>st</sup> plant spec	ies encount	ered in	the c	anopy at eac	h san	nple poin	ıt.	
Species compo	sition based upon	total of all pla	int species e	encount	tered	at each samp	le po	oint.		
	ty data collected fi						ect. (	Only desi	rable	
forb and shrub	densities were rec	orded based u	pon reclam	ation ci	riteria	l <b>.</b>				

<sup>3</sup> Percentages are not cumulative with vegetation totals, rather a measure by layer of ground cover from the top layer thru the lower layers to the soil surface. Values for bare ground have no vegetative, litter or rock cover above the soil surface.

The foliar cover of desirable species on the site was 20 percent less than that measured on the reference areas. In comparison with values measured on the reference areas, the cover of perennial grasses was 11 percent greater, and their composition was 32 percent greater. Cheatgrass, a non-native invasive species, has a foliar cover 33 percent greater and a composition 39 percent greater than that measured on the reference areas.

No desirable forb species were encountered in the canopy intercept data collected at this site. However, they were encountered in the density data at 23 percent of that measured on the reference areas. The foliar cover of shrubs was 20 percent of that on the reference areas.

The amount of bare ground on this site was 30 percent greater than that measured on the reference areas. The amount of herbaceous litter on this site was 18 percent less than that on the reference areas. The canopy gaps between perennial species were 13 percent larger on the reference areas than measured on this site.

Table 10 is a comparison of the data collected for exploration corehole pad IRI-3, MW-1, PW-1 and PW-2 with that from the rolling loam rangeland reference area. Only the data required to access the success of achieving successful reclamation is used in Table 10.

Table 10 – Comparison of Reclamation Criteria Elements with Native Rangeland Reference Areas											
Site	# desired plant species	% desired foliar cover	% bare ground	shrub density (#/m <sup>2</sup> )	forb density (#/m <sup>2</sup> )						
Corehole IRI-3, MW- 1, PW-1 and PW-2	22 species	45.4	39.3	0.76	1.14						
Reference Area <sup>1</sup>	33 species	56.5	27.5	1.74	5.03						
<sup>1</sup> The average of four na	<sup>1</sup> The average of four native rangelands reference areas were used as the baseline for evaluating success of the										

*reclamation criteria.* 

# Evaluation of the reclamation efforts of the disturbance on Corehole Pads IRI-3, MW-1, PW-1, and PW-2:

- There are 22 desirable plant species established on the site (9 perennial grasses, 9 desirable forbs, and 4 shrubs) meeting the requirement of at least five plant species.
- Russian wildrye (*Psathyrostachys juncea*) was the desired species with the greatest relative cover at 20.7 percent meeting the requirement that no one species can exceed 70 percent relative cover.
- The foliar cover of desirable species on the site was 80 percent of that on the native rangeland reference areas meeting the 80 percent similarity criteria.
- The amount of unprotected bare ground on this site was 30 percent greater than on the native rangeland reference areas which equates to 70 percent similarity, not meeting the required 80 percent similarity.

• The density of forbs and shrubs on the site in comparison with the native rangeland reference areas was 23 percent and 44 percent, respectively. Neither desirable forbs nor shrub densities have met the requirement of 80 percent similarity.

The plant community does meet the criteria of species diversity and desired foliar cover, but does not meet the criteria for bare ground, desirable forb density nor shrub density for successful reclamation of the disturbance at the site. This site does not meet all the criteria for successful reclamation of the disturbance at the site.

#### **Corehole Pad T**

Vegetation sampling data was collected on September 26, 2022. Three 25 meter transects were randomly placed on the pad with 50 sample points on each transect for a total of 150 points for cover data. Ten one-meter square density quadrants were placed along each transect for a total of 30 quadrants. Data collected from this site include vegetative foliar and basal cover, species composition, forb and shrub densities and ground cover all summarized by plant group. In addition, ground cover data was collected for dead vegetative litter, bare ground, and surface rock.

The 2022 data in the Table 11 is summarized from data presented in Appendix Table F1. Each plant species encountered at this site is listed in Table F1. As shown in Table F1 there is poor representation of the seeded species established on the site.

		Table 11 -	Reclaimed C	orehole	Pad	Г			
V	egetation Cover	, Species Cor	nposition, S	pecies	Dens	ity & Grou	nd Co	over	
		Line	-Point Can	opy Int	tercej	ot Data <sup>1</sup>		Density Data <sup>2</sup>	
		Number						Desirable	
		of	% Foliar	% Ba	asal	Species		Forb/Shrub	
Plant	: Group	Species	Cover	Cov	ver	Compositi	ion	Densit	y (#/m <sup>2</sup> )
Perennial Gras	ses	7	11.4		4.0	15	.25		n/a
Invasive Non-N	Native Grasses	1	6.7		0.0	12	.71		n/a
Desirable Forb	.08		1.93						
Invasive and N	on-Native Forbs	1	34.0		0.0	52	.54		n/a
Shrubs		5	11.3		0.0	14.42		1.49	
Vegetation To	otals	23	66.7		4.0	100.0		3.42	
	Line	-Point Inter	cept Soil Su	rface (	Cover	Data <sup>3</sup>			
Percent			Herba	ceous					
Cover by	<b>Bare Ground</b>	<b>Biotic Crus</b>	st Litt	er	Wo	ody Litter	I	Duff	Rock
Туре	26.0	0	.0	19.3		8.0		0.0	0.0
	from 3 randomly p								
	cover based upon								ıt.
	sition based upon								
	ty data collected fi					0	ect. C	Only desi	rable
	densities were rec								
	re not cumulative								
the top layer th	ru the lower layer	s to the soil s	urface. Valu	es for b	bare g	round have r	no ve	getative.	litter or

rock cover above the soil surface.

The foliar cover of desirable species on the site was 46 percent less than that measured on the reference areas. In comparison with values measured on the reference areas, the cover of perennial grasses was 70 percent lower, and their composition was 76 percent lower. The foliar cover of desirable forbs on this site was 27 percent lower and their composition was 43 percent lower than on the reference areas. The foliar cover of shrubs was only 84 percent, and their composition was 70 percent of that on the reference areas.

The density of desirable forbs on the site was 38 percent of that on reference areas. The density of shrubs on the site was 86 percent of that on reference areas.

Sixty-one (61) percent of the cover measured on this site came from non-native and invasive species. Cheatgrass (*Bromus tectorum*) accounted for 6.7 percent and Russian thistle (*Salsola tragus*) accounted for 34 percent of the cover measured on this site.

The amount of bare ground on the reference areas was 5 percent greater than that measured on this site. The amount of herbaceous litter on this site was 51 percent less than that on the reference areas. The canopy gaps between perennial species were 35 percent larger on this site than that measured on the reference areas.

There is poor distribution across the site of the perennial species used in the seed mix. Most of the perennial species on the site are grazing tolerant grasses and shrubs that have pioneered the site from adjacent stands. The foliar cover of Russian thistle, an invasive non-native species, is 24 percent greater than the total cover of all the perennial species on the site.

Table 12 is a comparison of the data collected for exploration corehole pad T with that from the rolling loam rangeland reference areas. Only the data required to access the success of achieving successful reclamation is used in Table 12.

Table 12 – Comp	Table 12 – Comparison of Reclamation Criteria Elements with Native Rangeland Reference Areas											
Site	# desired plant species% desired foliar cover% bare groundshrub density (#/m²)forb density (#/m²)											
Corehole Pad T	21 species	25.9	26.0	1.50	1.93							
Reference Area <sup>1</sup>	33 species	56.5	27.5	1.74	5.03							
<sup>1</sup> The average of four reclamation criteria.	native rangelands refe	erence areas wer	e used as the ba	ise for evaluating si	iccess of the							

#### Evaluation of the reclamation efforts of the disturbance on Corehole Pad T:

- There are 21 desirable plant species observed on the site (7 perennial grasses, 9 desirable forbs, and 5 shrubs) meeting the requirement of at least five plant species.
- Yellow rabbitbrush (*Chrysothamnus viscidiflorus*) was the desired species with the greatest relative cover at 9.3 percent meeting the requirement that no one species can exceed 70 percent relative cover.
- The foliar cover of desirable species on the site was 46 percent of that on the native rangeland reference areas not meeting the requirement of 80 percent similarity.

- The amount of unprotected bare ground on the site was 5 percent below that on the native rangeland reference areas which equates to 105 percent similarity, meeting the required 80 percent similarity.
- The density of forbs and shrubs on the site in comparison with the native rangeland reference areas was 38 percent and 86 percent, respectively. The criteria only require either forb density or shrub density meet the requirement of 80 percent similarity. Shrub density has met the required criteria.

The plant community only meets the criteria for species diversity, density of shrubs and bare ground. The criteria for the desired foliar cover and desirable forb density have not been met. This site does not meet all the criteria for successful reclamation of the disturbance at the site.

#### **Corehole Pad U**

Vegetation sampling data was collected on September 26, 2022. Three 25 meter transects were randomly placed on the pad with 50 sample points on each transect for a total of 150 points for cover data. Ten one-meter square density quadrants were placed along each transect for a total of 30 quadrants. Data collected from this site include vegetative foliar and basal cover, species composition, forb and shrub densities and ground cover all summarized by plant group. In addition, ground cover data was collected for dead vegetative litter, bare ground, and surface rock.

The 2022 data in the Table 13 is summarized from data presented in Appendix Table G1. Each plant species encountered at this site is listed in Table G1. As shown in Table G1 there is a poor representation of the seeded species established on the site.

		Table 13 - F							
<b>\</b>	Vegetation Cover.		<u>position, S</u> Point Can	-			nd C		y Data <sup>2</sup>
Plant Group		Number of Species	% Foliar Cover	% Ba Cov	isal	Species	Species Composition		irable /Shrub y (#/m <sup>2</sup> )
Perennial Gras	ses	4	12.7		0.7		.16		n/a
Invasive Non-1	Native Grasses	1	6.7		0.0	13	.68		n/a
Desirable Forb	S	3	0.7		0.6	1	.05		0.50
Invasive and N	on-Native Forbs	1	28.0		0.0	47	.37		n/a
Shrubs		5	8.7		0.7	14	.74	0.90	
Vegetation To	tals	14	56.8		2.0	10	100.0		1.40
	Line	-Point Interc	ept Soil Su	rface C	over	Data <sup>3</sup>			
Percent Cover by	Bare Ground	Biotic Crust	Herbac t Litte		Wo	ody Litter	]	Duff	Rock
Туре	33.3	0.	0	26.7		5.3		0.0	0.7
transect. Foliar Species compo <sup>2</sup> Sum of densit	From 3 randomly p cover based upon sition based upon ty data collected fi densities were rec	1 <sup>st</sup> plant spec total of all pla com ten 1-met	ies encounte int species e er square qu	ered in tencounter adrants	the ca ered a s alon	anopy at each at each samp ag each trans	h sar ole po	nple poir oint.	ıt.

<sup>3</sup> Percentages are not cumulative with vegetation totals, rather a measure by layer of ground cover from the top layer thru the lower layers to the soil surface. Values for bare ground have no vegetative, litter or rock cover above the soil surface.

The foliar cover of desirable species on the site was 39 percent of that measured on the reference areas. In comparison with values measured on the reference areas, the cover of perennial grasses was 67 percent lower, and their composition was 76 percent lower. The foliar cover of desirable forbs on this site was 16 percent and their composition was 12 percent of that on the reference areas. The foliar cover of shrubs was 64 percent, and their composition was 71 percent of that on the reference areas.

The density of desirable forbs on the site was 10 percent of that on reference areas. The density of shrubs on the site was 52 percent of that on reference areas.

Sixty-one (61) percent of the cover measured on this site came from non-native and invasive species. Cheatgrass (*Bromus tectorum*) accounted for 6.7 percent and Russian thistle (*Salsola tragus*) accounted for 28 percent of the cover measured on this site.

The amount of bare ground on this site was 21 percent greater than that measured on the reference areas. The amount of herbaceous litter on this site was 30 percent lower than that on the reference areas. The canopy gaps between perennial species were 37 percent larger on this site than that measured on the reference areas.

There is poor distribution across the site of the perennial species used in the seed mix. Most of the perennial species on the site are grazing tolerant grasses and shrubs that have pioneered the site from adjacent stands. The foliar cover of Russian thistle, an invasive non-native species, is 21 percent greater than the total cover of all the perennial species on the site.

Table 14 is a comparison of the data collected for corehole pad U with that from the rolling loam rangeland reference area. Only the data required to access the success of achieving successful reclamation is used in Table 14.

Table 14 – Comparison of Reclamation Criteria Elements with Native Rangeland Reference Areas											
Site	# desired plant species	% desired foliar cover	% bare ground	shrub density (#/m <sup>2</sup> )	forb density (#/m <sup>2</sup> )						
Corehole Pad U	12 species	22.1	33.3	0.90	0.50						
Reference Area <sup>1</sup>	33 species	56.5	27.5	1.74	5.03						
<sup>1</sup> The average of four reclamation criteria.	native rangelands refe	erence areas wer	e used as the ba	seline for evaluatin	g success of the						

#### **Evaluation of the reclamation efforts of the disturbance on Corehole Pad U:**

- There are 12 desirable plant species established on the site (4 perennial grasses, 3 desirable forbs, and 5 shrubs) meeting the requirement of at least five plant species.
- Yellow rabbitbrush (*Chrysothamnus viscidiflorus*) was the desired species with the greatest relative cover at 7.3 percent meeting the requirement that no one species can exceed 70 percent relative cover.

- The foliar cover of desirable species on the site was 39 percent of that on the native rangeland reference areas not meeting the requirement of 80 percent similarity.
- The amount of unprotected bare ground on the site was 21 percent greater than on the native rangeland reference areas which equates to 79 percent similarity, not meeting the required 80 percent similarity.
- The density of forbs and shrubs on the site in comparison with the native rangeland reference areas was 10 percent and 52 percent, respectively. Neither desirable forbs nor shrub densities have met the requirement of 80 percent similarity.

The plant community only meets the criteria for species diversity. The criteria for bare ground, desired foliar cover, desirable forb density and shrub density have not been met. This site does not meet all the criteria for successful reclamation of the disturbance at the site.

#### **Location Map:**



### Appendix A – Vegetation Sampling Data Native Rangeland Reference Areas

	Table A1 - Vegetation Cov	er, Species Composition, Sp Loam Native Rangeland Re	pecies Densi	ty & Grou		
	Plant Species Observed within S	tudy Area	Line-Point	t Canopy In	tercept Data <sup>1</sup>	Density Data <sup>2</sup>
Species Symbol	Scientific Name	Common Name	% Foliar Cover	% Basal Cover	Species Composition	
ACHY	Achnatherum hymenoides	Indian ricegrass	4.50	2.00	7.59	
HECO26	Hesperostipa comata	needle & thread needlegrass	12.50	3.00	17.24	
KOMA	Koeleria macrantha	prairie junegrass	7.00	1.00	13.10	
PASM	Pascopyrum smithii	western wheatgrass	13.00	0.50	20.69	
POSE	Poa secunda	Sandberg bluegrass	1.50	0.00	4.83	Desirable Forb/Shrub
		Perennial Grass Totals	38.50	6.50	63.45	Density (#/m <sup>2</sup> )
ANRO2	Antennaria rosea	rosey pussytoes	0.00	0.00	0.00	0.08
ASCH	Astragalus chamaeleuce	cicada milkvetch	0.00	0.00	0.00	0.03
ASCO12	Astragalus convallarius	lesser-rushy mlkvetch	0.50	0.00	0.69	0.13
ASSP6	Astragalus spatulatus	tufted milkvetch	0.00	0.00	0.00	0.05
CAFI	Carex filifolia	threadleaf sedge	1.00	0.00	1.38	0.35
CALI4 <sup>3</sup>	Castilleja linariifolia	Wyoming Indian paintbrush	0.00	0.00	0.00	0.00
CHAL	Chenopodium album	lambsquarter	0.00	0.00	0.00	0.08
COUM <sup>3</sup>	Comandra umbellata	bastard toadflax	0.00	0.00	0.00	0.00
CRFL6	Cryptantha flavoculata	roughseed cryptanth	0.00	0.00	0.00	0.30
EREA	Erigeron eatonii	Eaton's fleabane	0.00	0.00	0.00	0.28
EUFE <sup>3</sup>	Euphorbia fendleri	Fendler spurge	0.00	0.00	0.00	0.00
LEER	Leucelene ericoides	heath aster	0.00	0.00	0.00	0.28
LEMO2	Lepidium montanum	mountain pepperwed	0.50	0.00	0.69	0.18
LIPU <sup>3</sup>	Linanthus pungens	pricky phlox	0.00	0.00	0.00	0.00
LUAR3 <sup>3</sup>	Lupinus argenteus	silvery lupine	0.00	0.00	0.00	0.00
MACA2 <sup>3</sup>	Machaeranthera canescens	hoary tansyaster	0.00	0.00	0.00	0.00
MAGR2	Machaeranthera grindelioides	rayless tansyaster	0.50	0.00	1.38	0.78
OPPO	Opuntia polyacantha	plains pricklypear cactus	0.50	0.00	1.38	0.00
PEFRF5	Penstemon fremontii var. fremontii	Fremont beardtongue	0.00	0.00	0.00	0.03
РННО	Phlox hoodii	Hood's phlox	1.00	0.00	1.38	1.13
PHLO2 <sup>3</sup>	Phlox longifolia	longleaf phlox	0.00	0.00	0.00	0.00
SPCO	Sphaeralcea coccinea	scarlet globemallow	0.50	0.00	2.07	1.33
		Desirable Forb Totals	4.50	0.0	8.97	5.03
ARTRW	Artemisia tridentata var. wyomingensis	Wyoming big sagebrush	9.00	0.00	13.10	1.56
CHVI8	Chrysothamnus viscidiflorus	yellow rabbitbrush	4.00	0.50	6.20	0.02
GUSA2	Gutierrezia sarothrae	broom snakeweed	0.50	0.00	1.38	0.14
JUOS	Juniperus osteosperma	Utah juniper	0.00	0.00	0.00	0.02
SAVE4 <sup>3</sup>	Sarcobatus vermiculatus	greasewood	0.00	0.00	0.00	0.00
		Shrub Totals	13.50	0.50	20.68	1.74
BRTE	Bromus tectorum	cheatgrass	4.00	0.00	6.90	
LEDE <sup>3</sup>	Lepidium densiflorum	common pepperweed	0.00	0.00	0.00	
	Totals for Inva	4.00	0.00	6.90		
		60.50	7.00	100.0	6.77	
	ata from 5 randomly placed transects with 5		Soil	Surface Cover	Гуре (%) <sup>4</sup>	
	bliar cover based upon 1 <sup>st</sup> plant species enco bies composition based upon total of all plan				<b>Bare Ground</b>	27.5
point. spec	hes composition based upon total of all plat	n species encountered at reach s	ampie		<b>Biotic Crust</b>	2.5
<sup>2</sup> Sum of d	ensity data collected from 10 one-square me		ct. Only	Her	baceous Litter	38.0
	orb and shrub densities were recorded based				2.5	
	cies not encountered in sampling data but w ges are not cumulative with vegetation totals				Duff	0.0
	p layer thru the lower layers to the soil surf				Rock	0.0
	· · ·	20			KUCK	0.0

Table A2 - Canopy Gap Intercept Data           Rolling Loam Native Rangeland Reference Area												
Canopy Gaps > 20		Total of Gaps > Gaps 21-50 cm		Gaps 51-100 cm		Gaps 101-200 cm		Gaps >200 cm				
centimeters	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022		
Transect 1	1378	881	282	488	326	393	770	0	0	0		
Transect 2	996	1153	335	297	661	593	0	263	0	0		
Transect 3	1113	939	358	512	755	173	0	254	0	0		
Transect 4	691	835	528	465	163	265	0	105	0	0		
Transect 5	485		345		140		0		0			
Total Gaps (cm)	4663	3808	1848	1762	2045	1424	770	622	0	0		
% Line in Gaps	37.30	38.08	14.78	17.62	16.36	14.24	6.16	6.22	0.00	0.00		
Line length for each tr	ansect was	s 25 meter	s for site t	otal length	h of 125 m	eters.						

	Table A3 - Transect Coordinates           Native Rangeland Reference Areas (Datum: UTM Zone 12, WGS 84)												
	Azimuth from         Transect Starting Point         Transect Ending Point												
Site	starting point (true N)	Northing (mN) Easting (mE) Northing (mN) Easting (mE)											
Transect 1	083 °	4424307.68298	724269.47505	4424316.99063	724291.26662	25 meters							
Transect 2	103 °	4423048.79583	726230.32726	4423054.88211	726251.95974	25 meters							
Transect 3	166 °	4424447.61936	725521.11199	4424427.03500	725527.62247	25 meters							
Transect 4	244 °	4426608.51207	723511.42468	4426600.72543	723488.39757	25 meters							

**Transect Photos -- Native Rangeland Reference Areas** 



Figure A1 - Rolling Loam Rangeland Reference Area Transect #1



Figure A2 - Rolling Loam Rangeland Reference Area Transect #2



Figure A3 - Rolling Loam Rangeland Reference Area Transect #3



Figure A4 - Rolling Loam Rangeland Reference Area Transect #4

Appendix B – Vegetation Sampling Data Reclaimed Well Pad 93-2M	Appendix B –	Vegetation	Sampling	Data Ree	claimed	Well I	Pad 93-2	M
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	Table B1 - Vegetation Cover, Species Composition, Species Density & Ground Cover Reclaimed Pad 93-2M					
				Line-Point Canopy Intercept Data <sup>1</sup>		
Species Symbol	Scientific Name	Common Name	% Foliar Cover	% Basal Cover	Species Composition	Density Data <sup>2</sup>
AGCR	Agropyron cristatum	crested wheatgrass	1.3	0.0	2.13	
ELLAL	Elymus lanceolatus	thickspike wheatgrass	0.7	0.7	1.06	
ELTR7	Elymus trachycaulus	slender wheatgrass	10.7	3.3	18.09	
LECI4	Leymus cinereus	basin wildrye	1.3	0.0	2.13	
NAVI4	Nassella viridula	green needlegrass	0.7	0.0	1.06	
PASM	Pascopyrum smithii	western wheatgrass	5.3	0.0	8.51	
PSJU3	Psathyrostachys juncea	Russian wildrye	18.7	2.0	31.92	
THIN6	Thinopyrum intermedium	pubescent wheatgrass	0.7	0.0	1.06	Forb/Shrub
		Perennial Grass Totals	39.4	6.0	65.96	Density (#/m <sup>2</sup> )
MACA2 <sup>3</sup>	Machaeranthera canescens	hoary tansyaster	0.0	0.0	0.00	0.00
MAGR2 <sup>3</sup>	Machaeranthera grindelioides	rayless tansyaster	0.0	0.0	0.00	0.00
SPCO	Sphaeralcea coccinea	scarlet globemallow	0.7	0.0	1.06	0.33
Desirable Forb Totals			0.7	0.0	1.06	0.33
	Artemisia tridentata var.					
ARTRW	wyomingensis	Wyoming big sagebrush	0.7	0.0	1.06	0.37
ATCA2 <sup>3</sup>	Atriplex canescens	four-wing saltbush	0.0	0.0	0.00	0.00
CHVI8	Chrysothamnus viscidiflorus	yellow rabbitbrush	5.3	0.0	8.51	0.50
GUSA2	Gutierrezia sarothrae	broom Snakeweed	0.0	0.0	0.00	0.13
Shrub Totals			6.0	0.0	9.57	1.00
BRTE	Bromus tectorum	cheatgrass	8.0	0.0	19.15	
DESO2	Descurainia sophia	yellow mustard	2.7	0.0	4.26	
	Totals for Invasive and Non-Native Species				23.41	
	Vegetation Totals				100.0	1.33
<sup>1</sup> Sum of da	Vegetation Totals 56.8 Sum of data from 3 randomly placed 25 meter transects with 50 sample points collected					

<sup>1</sup> Sum of data from 3 randomly placed 25 meter transects with 50 sample points collected from each transect. Foliar cover based upon 1<sup>st</sup> plant species encountered in the canopy at each sample point. Species composition based upon total of all plant species encountered at each sample point.

Percent Ground Cover by Cover Type <sup>4</sup>

Bare Ground	28.0
Biotic Crust	0.0
Herbaceous Litter	56.3
Woody Litter	1.3
Duff	0.0
Rock	0.0

<sup>2</sup> Sum of density data collected from 10 one-square meter quadrants along each transect. Only desirable forb and shrub densities were recorded based upon reclamation criteria.
<sup>3</sup> Plant species not encountered in sampling data but were present within the study area.
<sup>4</sup> Percentages are not cumulative with vegetation totals, rather a measure by layer of

ground cover from the top layer thru the lower layers to the soil surface. Values for bare ground have no vegetative, litter or rock cover above the soil surface.

Table B2 - Canopy Gap Intercept Data         Reclaimed Pad 93-2M										
Canopy Gaps > 20 centimeters	Total of Gaps > 20 cm	Gaps 21-50 cm	Gaps 51-100 cm	Gaps 101-200 cm	Gaps >200 cm					
Transect 1	1252	564	484	0	204					
Transect 2	1341	123	420	376	422					
Transect 3	730	576	154	0	0					
Total Gaps (cm)	3323	1263	1058	376	626					
% Line in Gaps	44.31	16.84	14.11	5.01	8.35					
Line length for each transect was 25 meters for site total length of 75 meters										
	Table B3 - Transect CoordinatesReclaimed Pad 93-2M (Datum: UTM Zone 12, WGS 84)									
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	Azimuth from   Transect Starting Point   Transect Ending Point									
Site	starting point (true N)	Northing (mN)	Easting (mE)	Northing (mN)	Easting (mE)	Length				
Transect 1	165 °	4423686.18452	725370.26961	4423662.77191	725378.83102	25 meters				
Transect 2	240 °	4423691.89403	725371.72592	4423686.50910	725351.18604	25 meters				
Transect 3	312 °	4423699.19054	725374.24723	4423714.64547	725359.59171	25 meters				

Transect Photos -- Reclaimed Pad 93-2M



Figure B1 Transect 1 Reclaimed Pad 93-2M



Figure B2 Transect 2 Reclaimed Pad 93-2M



Figure B3 Transect 3 Reclaimed Pad 93-2M

	Table C1 - Vegetation	1 Cover, Species Composit Reclaimed Pad		Density & (	Ground Cover	
	Plant Species Observed with			t Canopy II	ntercept Data <sup>1</sup>	Density Data <sup>2</sup>
Species			% Foliar	% Basal	Species	•
Symbol	Scientific Name	Common Name	Cover	Cover	Composition	
ACHY	Achnatherum hymenoides	Indian ricegrass	2.7	1.0	6.00	
AGCR	Agropyron cristatum	crested wheatgrass	0.7	0.0	1.00	
ELLAL	Elymus lanceolatus	thickspike wheatgrass	1.3	1.0	2.00	
ELTR7	Elymus trachycaulus	slender wheatgrass	14.0	6.0	22.00	
LECI4	Leymus cinereus	basin wildrye	0.7	0.0	1.00	
PASM	Pascopyrum smithii	western wheatgrass	8.0	0.0	13.00	
PSJU3	Psathyrostachys juncea	Russian wildrye	6.7	1.0	10.00	
	Pseudoroegneria spicata ssp.	beardless bluebunch				
PSSPI	inermis	wheatgrass	2.0	1.0	3.00	
THIN6	Thinopyrum intermedium	intermedate wheatgrass	5.3	2.0	8.00	Forb/Shrub
		Perennial Grass Totals	41.4	12.0	66.00	Density (#/m <sup>2</sup> )
ASCI4	Astragalus cicer	cicer milkvetch	0.0	0.0	0.00	0.03
LILE3 <sup>3</sup>	Linum lewisii Lewis flax		0.0	0.0	0.00	0.00
MACA2	Machaeranthera canescens hoary tansyaster		0.0	0.0	0.00	0.03
MESA	Medicago sativa	alfalfa	0.0	0.0	0.00	0.03
PHHO			0.0	0.0	0.00	0.03
		<b>Desirable Forb Totals</b>	0.0	0.0	0.00	0.12
	Artemisia tridentata var.					
ARTRW	wyomingensis	Wyoming big sagebrush	0.7	0.0	1.00	0.07
ATCA2 <sup>3</sup>	Atriplex canescens	four-wing saltbush	0.0	0.0	0.00	0.00
CHVI8	Chrysothamnus viscidiflorus	yellow rabbitbrush	0.7	0.0	1.00	0.10
GUSA2	Gutierrezia sarothrae	broom Snakeweed	0.0	0.0	0.0	0.33
		Shrub Totals	1.4	0.0	2.00	0.50
BRTE	Bromus tectorum	cheatgrass	4.7	0.0	8.00	
SATR12	Salsola tragus	Russian thistle	14.0	0.0	24.00	
	Totals for Invasiv	e and Non-Native Species	18.7	0.0	32.00	
		Vegetation Totals	61.5	12.0	100.0	0.62
<sup>1</sup> Sum of da	ta from 3 randomly placed 25 met	er transects with 50 sample poi	nts collected			~ ~ 4
	ransect. Foliar cover based upon 1			Percent (	Ground Cover by	Cover Type <sup>4</sup>
	ple point. Species composition bas	ed upon total of all plant specie	es		Bare Grou	nd 28.7
encountered at each sample point.					Biotic Cru	
<sup>2</sup> Sum of density data collected from 10 one-square meter quadrants along each transect.					Herbaceous Litt	
Only desirable forb and shrub densities were recorded based upon reclamation criteria. <sup>3</sup> Plant species not encountered in sampling data but were present within the study area.						
	es not encountered in sampling dates are not cumulative with vegetation				Woody Litt	
						uff 0.0
	ground cover from the top layer thru the lower layers to the soil surface. Values for bare ground have no vegetative, litter or rock cover above the soil surface.				Ro	ck 1.3

# Appendix C – Vegetation Sampling Data Reclaimed Pad BG-8

Table C2 - Canopy Gap Intercept Data   Reclaimed Pad BG-8										
Canopy Gaps > 20   Total of Gaps   Gaps 21-50   Gaps 51-100   Gaps 101-200   Gaps > 200										
centimeters	centimeters > 20 cm cm cm cm cm									
Transect 1	836	258	0	122	456					
Transect 2	1555	110	334	628	483					
Transect 3	1080	385	128	567	0					
Total Gaps (cm)	Total Gaps (cm)   3471   753   462   1317   939									
% Line in Gaps   46.28   10.04   6.16   17.56   12.52										
Line length for each	transect was 25 m	eters for site total	length of 75 meter	rs						

	Table C3 - Transect Coordinates   Reclaimed Pad BG-8 (Datum: UTM Zone 12, WGS 84)									
	Azimuth from   Transect Starting Point   Transect Ending Point									
Site	starting point (true N)	Northing (mN)	Easting (mE)	Northing (mN)	Easting (mE)	Length				
Transect 1	127 °	4423097.10425	726315.63233	4423083.39549	726336.65478	25 meters				
Transect 2	228 °	4423094.34867	726312.63466	4423075.74408	726295.99316	25 meters				
Transect 3	288 °	4423102.87169	726315.29003	4423107.09647	726292.92393	25 meters				

### Transect Photos – Reclaimed Pad BG-8



Figure C1 Transect 1 Reclaimed Pad BG-8

Figure C2 Transect 2 Reclaimed Pad BG-8



Figure C3 Transect 3 Reclaimed Pad BI -8

Appendix D – Vegetation Sampling Data Reclaimed Corehole Pad G
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	Plant Species Observed wit	Reclaimed Corehole		nt Canopy I	ntercept Data <sup>1</sup>	Density Data <sup>2</sup>
Species Symbol	Scientific Name	Common Name	% Foliar Cover	% Basal Cover	Species Composition	
ACHY	Achnatherum hymenoides	Indian ricegrass	0.7	0.0	1.03	
ELLAL	Elymus lanceolatus	thickspike wheatgrass	1.3	0.0	2.06	
ELTR7	Elymus trachycaulus	slender wheatgrass	12.0	4.0	18.56	
HECO26	Hesperostipa comata	needle & thread needlegrass	6.0	2.0	9.28	
LECI4	Levmus cinereus	basin wildrye	1.3	0.0	2.06	
NAVI4	Nassella viridula	green needlegrass	1.3	0.7	3.09	
PASM	Pascopyrum smithii	western wheatgrass	6.0	0.0	9.28	
KOMA	Koeleria macrantha	prairie junegrass	0.7	0.7	1.03	
	Pseudoroegneria spicata	prante janegrass	017	017	1100	Desirable
PSSPS	ssp. spicata	bearded bluebunch wheatgrass	4.0	0.0	7.23	Forb/Shrub
		Perennial Grass Totals	33.3	7.4	53.62	Density (#/m <sup>2</sup> )
ACLAA	Achillea lanulosa var.	common varrow	0.0	0.0	0.00	0.03
ASCH	Astragalus chamaeleuce	cicada milkvetch	0.0	0.0	0.00	0.0
ASCO12	Astragalus convallarius	lesser-rushy mlkvetch	0.7	0.0	1.03	0.0
CHAL	Chenopodium album	lambsquarter	0.0	0.0	0.00	0.0.
CLSE	Cleome serrulata	Rocky Mtn. beeplant	0.0	0.0	0.00	0.0
CRFL6	Cryptantha flavoculata	roughseed cryptanth	0.0	0.0	0.00	0.0
EREA	Erigeron eatonii	Eaton fleabane	0.0	0.0	0.00	0.03
ERUM	Eriogonum umbellatum	sulphur buckwheat	0.0	0.0	0.00	0.1
HEBO	Hedysarum boreale	Utah sweetvetch	0.7	0.0	1.03	0.1
LILE3	Linum lewisii	Lewis flax	0.0	0.0	0.00	0.0
MACA2	Machaeranthera canescens	hoary tansyaster	0.0	0.0	0.00	0.10
	Machaeranthera					0.27
MAGR2	grindelioides	rayless tansyaster	0.7	0.0	1.03	
MESA	Medicago sativa	alfalfa	1.3	0.0	3.09	0.90
PEFRF5	Penstemon fremontii var.	Fremont beardtongue	0.0	0.0	0.00	0.03
PEPA8	Penstemon palmeri	Palmer's beardtongue	0.0	0.0	0.00	0.0
PHHO	Phlox hoodii	Hood's phlox	0.0	0.0	0.00	0.0
SPCO	Sphaeralcea coccinea	scarlet globemallow	0.0	0.0	0.00	0.9
		Desirable Forb Totals	3.4	0.0	6.18	3.0
	Artemisia tridentata var.					0.1
ARTRW	wyomingensis	Wyoming big sagebrush	0.0	0.0	0.00	
ATCA2	Atriplex canescens	four-wing saltbush	2.0	0.0	3.09	0.30
CHVI8	Chrysothamnus viscidiflorus	yellow rabbitbrush	0.7	0.0	1.03	0.0
GUSA2	Gutierrezia sarothrae	broom Snakeweed	2.0	0.0	3.09	0.4
KRLA2	Krascheninnikovia lanata	winterfat	0.7	0.0	1.03	0.0
PUTR2	Purshia tridentata	antelope bittrebrush	0.0	0.0	0.00	0.0
DDTE	D	Shrub Totals	5.4	0.0	8.24	1.04
BRTE	Bromus tectorum	cheatgrass	3.3	0.0	8.25	
SATR12	Salsola tragus	Russian thistle	13.3	0.0	23.71	
	Totals for In	vasive and Non-Native Species	16.6	0.0	31.96	
		Vegetation Totals	<b>58.</b> 7	7.4	100.0	4.04
from each t	ransect. Foliar cover based upon	eter transects with 50 sample point 1 <sup>st</sup> plant species encountered in th	e canopy at	Percent	Ground Cover by	<sup>7</sup> Cover Type <sup>3</sup>
each sample point. Species composition based upon total of all plant species encountered					Bare Gro	und 30.'
at each sam					Biotic C	
		square meter quadrants along each			Herbaceous Li	
		recorded based upon reclamation			Woody Li	
		ation totals, rather a measure by lay				
ground cover from the top layer thru the lower layers to the soil surface. Values for bare ground have no vegetative, litter or rock cover above the soil surface.						Duff 0.

Table D2 - Canopy Gap Intercept Data Reclaimed Corehole Pad G										
Canopy Gaps > 20 centimetersTotal of Gaps > 20 cmGaps 21-50 cmGaps 51-100 										
Transect 1	873	378	495	0	0					
Transect 2	1482	137	223	639	483					
Transect 3	1216	193	672	351	0					
Total Gaps (cm)	3571	708	1390	990	483					
% Line in Gaps 47.61 9.44 18.53 13.20 6.44										
Line length for each transect was 25 meters for site total length of 75 meters										

	Table D3 - Transect Coordinates   Reclaimed Corehole Pad G (Datum: UTM Zone 12, WGS 84)									
	Azimuth from   Transect Starting Point   Transect Ending Point									
Site	starting point (true N)	Northing (mN)	Easting (mE)	Northing (mN)	Easting (mE)	Length				
Transect 1	230 °	4424258.03185	725298.19446	4424240.58501	725283.05880	25 meters				
Transect 2	117 °	4424254.39631	725299.24274	4424248.56697	725327.55352	25 meters				
Transect 3	328 °	4424266.73863	725299.56205	4424288.10498	725285.67370	25 meters				



Figure E1 Transect 1 Reclaimed Corehole Pad G



Figure E2 Transect 2 Reclaimed Corehole Pad G



Figure E3 Transect 3 Reclaimed Corehole Pad G

# Appendix E – Vegetation Sampling Data Reclaimed Corehole Pads IRI-3, MW1, PW1, PW2

		n Cover, Species Composition ned Corehole Pads IRI-3, MV	· · ·	-	round Cover	
	Plant Species Observed wi		Line-Poi	Density Data <sup>2</sup>		
Species Symbol	Scientific Name	Common Name	% Foliar Cover	% Basal Cover	Species Composition	
ACHY	Achnatherum hymenoides	Indian ricegrass	0.7	0.7	1.25	
AGCR	Agropyron cristatum	crested wheatgrass	5.3	1.3	10.00	
ELTR7	Elymus trachycaulus	slender wheatgrass	2.7	0.0	5.00	
HECO26	Hesperostipa comata	needle & thread needlegrass	2.7	0.7	5.00	
LECI4 <sup>3</sup>	Leymus cinereus	basin wildrye	0.0	0.0	0.00	
PASM	Pascopyrum smithii	western wheatgrass	5.3	0.0	10.00	
PSJU3	Psathyrostachys juncea	Russian wildrye	20.7	2.7	42.50	
PSSPI	Pseudoroegneria spicata ssp. inermis	beardless bluebunch wheatgrass	1.3	0.0	2.50	Desirable
THIN6	Thinopyrum intermedium	pubescent wheatgrass	4.0	0.7	7.50	Forb/Shrub
		Perennial Grass Totals	42.7	6.1	83.75	Density (#/m <sup>2</sup> )
ANRO2	Antennaria rosea	rosey pussytoes	0.0	0.0	0.00	0.10
ASCH	Astragalus chamaeleuce	cicada milkvetch	0.0	0.0	0.00	0.03
CHAL	Chenopodium album	lambsquarter	0.0	0.0	0.00	0.17
EREA	Erigeron eatonii	Eaton's fleabane	0.0	0.0	0.00	0.07
LILE3	Linum lewisii	Lewis flax	0.0	0.0	0.00	0.17
MACA2 <sup>3</sup>	Machaeranthera canescens	hoary tansyaster	0.0	0.0	0.00	0.00
	Machaeranthera					0.00
MAGR2 <sup>3</sup>	grindelioides	rayless tansyaster	0.0	0.0	0.00	
MESA	Medicago sativa	alfalfa	0.0	0.0	0.00	0.57
РННО	Phlox hoodii	Hood's phlox	0.0	0.0	0.00	0.03
-		Desirable Forb Totals	0.0	0.0	0.00	1.14
ARTRW	Artemisia tridentata var. wvomingensis	Wyoming big sagebrush	0.0	0.0	0.00	0.10
ATCA2	Atriplex canescens	four-wing saltbush	2.7	0.0	5.00	0.53
CHVI8	Chrysothamnus viscidiflorus	yellow rabbitbrush	0.0	0.0	0.00	0.10
GUSA2	Gutierrezia sarothrae	broom Snakeweed	0.0	0.0	0.00	0.03
		Shrub Totals	2.7	0.0	5.00	0.76
ALDE <sup>3</sup>	Alyssum desertorum	desert madwort	0.0	0.0	0.00	
BRTE	Bromus tectorum	cheatgrass	6.0	0.0	11.25	
	Totals for In	wasive and Non-Native Species	6.0	0.0	11.25	
		Vegetation Totals	51.4	6.1	100.0	1.90
from each t	ransect. Foliar cover based upon	eter transects with 50 sample point 1 <sup>st</sup> plant species encountered in th ad upon total of all plant species at	e canopy at	Percent	Ground Cover by	
each sample point. Species composition based upon total of all plant species encountered at each sample point.					Bare Gro	
<sup>2</sup> Sum of density data collected from 10 one-square meter quadrants along each transect.					Biotic C	
	ble forb and shrub densities were		Herbaceous L			
	ies not encountered in sampling		Woody L	itter 0.6		
		ation totals, rather a measure by la				Duff 0.0
		ver layers to the soil surface. Value			ŀ	Rock 1.3
ground have	e no vegetative, litter or rock cov	er above the soil surface.				

Table E2 - Canopy Gap Intercept Data   Reclaimed Corehole Pads IRI-3, MW-1, PW-1, and PW-2										
Canopy Gaps > 20 centimetersTotal of Gaps > 20 cmGaps 21-50 cmGaps 51-100 cmGaps 101-200 cmGaps >200 cm										
Transect 1	732	322	173	237	0					
Transect 2	1519	290	506	246	477					
Transect 3	1061	518	367	176	0					
Total Gaps (cm)	3312	1130	1046	659	477					
% Line in Gaps   44.16   15.07   13.95   8.79   6.36										
Line length for each transect was 25 meters for site total length of 75 meters										

Table E3 - Transect Coordinates   Reclaimed Corehole Pads IRI-3, MW-1, PW-1, and PW-2   (Datum: UTM Zone 12, WGS 84)									
Azimuth from Transect Starting Point Transect Ending Point									
Site	starting point (true N)	Northing (mN)	Northing (mN) Easting (mE) Northing (mN) Easting (mE)						
Transect 1	120 °	4424245.40627	724301.49859	4424237.07351	724324.15171	25 meters			
Transect 2	358 °	4424257.94819	724297.28076	4424281.61625	724293.59071	25 meters			
	ransect 3 $274^{\circ}$ 4424256.52370 724286.63195 4424258.58470 724262.28194								

Transect Photos -- Reclaimed Corehole Pads IRI3, MW1, PW1, PW2



Figure E1 Transect 1 Reclaimed Pads IRI3, MW1, PW1, PW2 Figure E2 Transect 2 Reclaimed Pads IRI3, MW1, PW1, PW2



Figure E3 Transect 3 Reclaimed Pads IRI3, MW1, PW1, PW2

# Appendix F – Vegetation Sampling Data Reclaimed Corehole Pad T

	Table F1 - Vegetation Cover, Species Composition, Species Density & Ground Cover Reclaimed Corehole Pad T								
					int Canopy Intercept Data <sup>1</sup>				
Species			% Foliar	% Basal	Species	•			
Symbol	Scientific Name	Common Name	Cover	Cover	Composition				
ACHY	Achnatherum hymenoides	Indian ricegrass	3.3	1.3	4.24				
ELTR7	Elymus trachycaulus	slender wheatgrass	2.0	0.7	3.39				
HECO26 <sup>3</sup>	Hesperostipa comata	needle & thread needlegrass	0.0	0.0	0.00				
LECI4	Leymus cinereus	basin wildrye	0.7	0.7	0.85				
PASM	Pascopyrum smithii	western wheatgrass	0.7	0.0	0.85				
PSJU3	Psathyrostachys juncea	Russian wildrye	0.7	0.0	0.85				
1.50.00	Pseudoroegneria spicata	beardless bluebunch	0.17	010	0.00	Desirable			
PSSPI	ssp. inermis	wheatgrass	4.0	1.3	5.07	Forb/Shrub			
15511	ssp. mernus	Perennial Grass Totals	11.4	4.0	15.25	Density (#/m <sup>2</sup> )			
ARDR4 <sup>3</sup>	Artemisia dracunculus	tarragon	0.0	0.0	0.00	0.00			
ARFR4	Artemisia frigida	fringed sage	1.3	0.0	1.69	0.23			
ASCH	Astragalus chamaeleuce	cicada milkvetch	0.0	0.0	0.00	0.07			
CHAL	Chenopodium album	lambsquarter	0.0	0.0	0.00	0.07			
EREA	Erigeron eatonii	Eaton fleabane	0.0	0.0	0.00	0.03			
LILE3	Linum lewisii Lewis flax		0.0	0.0	0.00	0.23			
MACA2	Machaeranthera canescens hoary tansyaster		0.0	0.0	0.00	0.23			
MESA	Medicago sativa	alfalfa	2.0	0.0	3.39	1.07			
SPCO <sup>3</sup>	Sphaeralcea coccinea	scarlet globemallow	0.0	0.0	0.00	0.00			
		Desirable Forb Totals	3.3	0.0	5.08	1.93			
ARTRW	Artemisia tridentata var. wyomingensis	Wyoming big sagebrush	0.7	0.0	0.9	0.33			
ATCA2 <sup>3</sup>	Atriplex canescens	four-wing saltbush	0.0	0.0	0.00	0.00			
CHVI8	Chrysothamnus viscidiflorus	yellow rabbitbrush	9.3	0.0	11.84	0.80			
GUSA2	Gutierrezia sarothrae	broom Snakeweed	1.3	0.0	1.68	0.33			
PUTR2	Purshia tridentata	antelope bittrebrush	0.0	0.0	0.0	0.03			
		Shrub Totals	11.3	0.0	14.42	1.49			
BRTE	Bromus tectorum	cheatgrass	6.7	0.0	12.71				
SATR12	Salsola tragus	Russian thistle	34.0	0.0	52.54				
		vasive and Non-Native Species	40.7	0.0	65.25				
		Vegetation Totals	66.7	4.0	100.0	3.42			
<sup>1</sup> Sum of data from 3 randomly placed 25 meter transects with 50 sample points collected from each transect. Foliar cover based upon 1 <sup>st</sup> plant species encountered in the canopy at				Percent	Ground Cover by	Cover Type 4			
each sample point. Species composition based upon total of all plant species encountered					Bare Gro	ound 26.0			
at each sample point.					Biotic C				
<sup>2</sup> Sum of density data collected from 10 one-square meter quadrants along each transect.					Herbaceous L				
Only desirable forb and shrub densities were recorded based upon reclamation criteria.					Woody L				
	ies not encountered in sampling			*					
		tion totals, rather a measure by la				Duff 0.0			
	er from the top layer thru the low e no vegetative, litter or rock cov	er layers to the soil surface. Value er above the soil surface.	s for bare		ŀ	Rock 0.0			

Table F2 - Canopy Gap Intercept DataReclaimed Corehole Pad T							
Canopy Gaps > 20 centimeters	Total of Gaps > 20 cm	Gaps 21-50 cm	Gaps 51-100 cm	Gaps 101-200 cm	Gaps >200 cm		
Transect 1	2298	0	386	509	1403		
Transect 2	1809	228	447	1134	0		
Transect 3	1775	177	390	972	236		
Total Gaps (cm)	5882	405	1223	2615	1639		
% Line in Gaps	78.43	5.40	16.31	34.87	21.85		
Line length for each transect was 25 meters for site total length of 75 meters							

Table F3 - Transect Coordinates LocationsReclaimed Corehole Pad T (Datum: UTM Zone 12, WGS 84)							
	Azimuth from   Transect Starting Point   Transect Ending Point						
	starting point	Northing					
Site	(true N)	(mN)	Easting (mE)	Northing (mN)	Easting (mE)	Length	
Transect 1	138 °	4426312.72700	723662.04020	4426297.73512	723681.20553	25 meters	
Transect 2	202 °	4426312.40211	723658.54415	4426290.00694	723652.61820	25 meters	
Transect 3	234 °	4426316.01716	723660.57553	4426304.48838	723638.76904	25 meters	

### Transect Photos -- Reclaimed Corehole Pad T



Figure F1 Transect 1 Reclaimed Corehole Pad T



Figure F2 Transect 2 Reclaimed Corehole Pad T



Figure F3 Transect 3 Reclaimed Corehole Pad T

Table G1 - Vegetation Cover, Species Composition, Species Density & Ground CoverReclaimed Corehole Pad U							
Plant Species Observed within Study Area				Line-Point Canopy Intercept Data <sup>1</sup>			
Species Symbol	Scientific Name	Common Name	% Foliar Cover	% Basal Cover	Species Composition		
ACHY	Achnatherum hymenoides	Indian ricegrass	2.0	0.0	4.21		
HECO26	Hesperostipa comata	needle & thread needlegrass	0.7	0.0	1.05		
PASM	Pascopyrum smithii	western wheatgrass	8.7	0.0	15.79	Desirable	
PSJU3	Psathyrostachys juncea	Russian wildrye	1.3	0.7	2.11	Forb/Shrub	
	· · · · · ·	Perennial Grass Totals	12.7	0.7	23.16	Density (#/m <sup>2</sup> )	)
CHAL	Chenopodium album	lambsquarter	0.0	0.0	0.00	0.13	3
LEMO2	Lepidium montanum	mountain pepperwed	0.0	0.0	0.00	0.04	4
MESA	Medicago sativa	alfalfa	0.7	0.6	1.05	0.33	3
		Desirable Forb Totals	0.7	0.6	1.05	0.50	0
ARTRT	Artemisia tridentata var. tridentata	basin big sagebrush	0.7	0.0	1.05	0.07	7
CHVI8	Chrysothamnus viscidiflorus	yellow rabbitbrush	7.3	0.7	11.59	0.60	0
GUSA2	Gutierrezia sarothrae	broom Snakeweed	0.0	0.0	1.05	0.17	7
PUTR2	Purshia tridentata	antelope bittrebrush	0.0	0.0	0.00	0.03	
SAVE4	Sarcobatus vermiculatus	greasewood	0.7	0.0	1.05	0.03	
		Shrub Totals	8.7	0.7	14.74	0.90	0
BRTE	Bromus tectorum	cheatgrass	6.7	0.0	13.68		
SATR12	Salsola tragus	Russian thistle	28.0	0.0	47.37		
	Totals for In	vasive and Non-Native Species	34.7	0.0	61.05		
		Vegetation Totals	56.8	2.0	100.0	1.40	0
from each tr	ta from 3 randomly placed 25 me ansect. Foliar cover based upon	e canopy at					
each sample point. Species composition based upon total of all plant species encountered					Bare Gro	und 33.3	3
at each sample point.				Biotic Crust 0.			0
<sup>2</sup> Sum of density data collected from 10 one-square meter quadrants along each transect. Only desirable forb and shrub densities were recorded based upon reclamation criteria.				Herbaceous Litter 20			7
<sup>3</sup> Percentages are not cumulative with vegetation totals, rather a measure by layer of				Woody Litter			3
ground cover from the top layer thru the lower layers to the soil surface. Values for bare				Duff 0			0
	ground have no vegetative, litter or rock cover above the soil surface.				F	Rock 0.7	7
<i>8</i>							

# Appendix G – Vegetation Sampling Data Reclaimed Corehole Pad U

Table G2 - Canopy Gap Intercept DataReclaimed Corehole Pad U							
Canopy Gaps > 20 centimeters	Total of Gaps > 20 cm	Gaps 21-50 cm	Gaps 51-100 cm	Gaps 101-200 cm	Gaps >200 cm		
Transect 1	1768	79	853	244	592		
Transect 2	2370	46	78	492	1754		
Transect 3	1909	41	220	269	1379		
Total Gaps (cm)	6047	166	1151	1005	3725		
% Line in Gaps	80.63	2.21	15.35	13.40	49.67		
Line length for each transect was 25 meters for site total length of 75 meters							

Table G3 - Transect Coordinates Reclaimed Corehole Pad U (Datum: UTM Zone 12, WGS 84)								
	Azimuth from Transect Starting Point Transect Ending Point							
Site	starting point (true N)	Northing (mN)	Easting (mE)	Northing (mN)	Easting (mE)	Length		
Transect 1	137 °	4426858.28988	723258.12137	4426841.14028	723275.72340	25 meters		
Transect 2	070 °	4426865.78186	723263.54439	4426878.24608	723283.18483	25 meters		
Transect 3	355 °	4426867.98031	723258.94866	4426893.34648	723256.32396	25 meters		

### Transect Photos -- Reclaimed Corehole Pad U



Figure G1 Transect 1 Reclaimed Corehole Pad U



Figure G2 Transect 2 Reclaimed Corehole Pad U



Figure G3 Transect 3 Reclaimed Corehole Pad U