Electro Purification, LLC:
Compliance Monitoring Plan & Impact Avoidance Plan

for

Electro Purification, LLC

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Houston, TX 77027

Hays County, Texas

April 2018

WRGS Project No. 100-001-15

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I. General Information

I.1. Introduction

Pursuant to the Barton Springs Edwards Aquifer Conservation District (the District) Rule 3-1.4.G., Electro Purification, LLC (EP), submits this Compliance Monitoring Plan (the "Plan"), in support of EP's application for a production permit from the District for a total annual volume of 912,967,200 gallons (~ 2.5 million gallons per day; MGD) from seven wells designated as Bridges Wells No. 1, 2, 3 & 4 and Odell Wells No. 1, 2, & 3. Bridges Wells No. 1 and 2 and Odell Well No. 2 served as the pumping wells for recently completed aquifer testing to meet the requirements of this application and hydrogeologic report (Wet Rock Groundwater Services, 2017). The EP Well Field is located on two properties (Bridges Tract and Odell Tract) containing approximately 1,300 acres in Hays County, Texas, located along Ranch to Market (RM) Road 3237 approximately 9 miles northwest of the City of Kyle and 5.5 miles northeast of Wimberley (Figure 1).

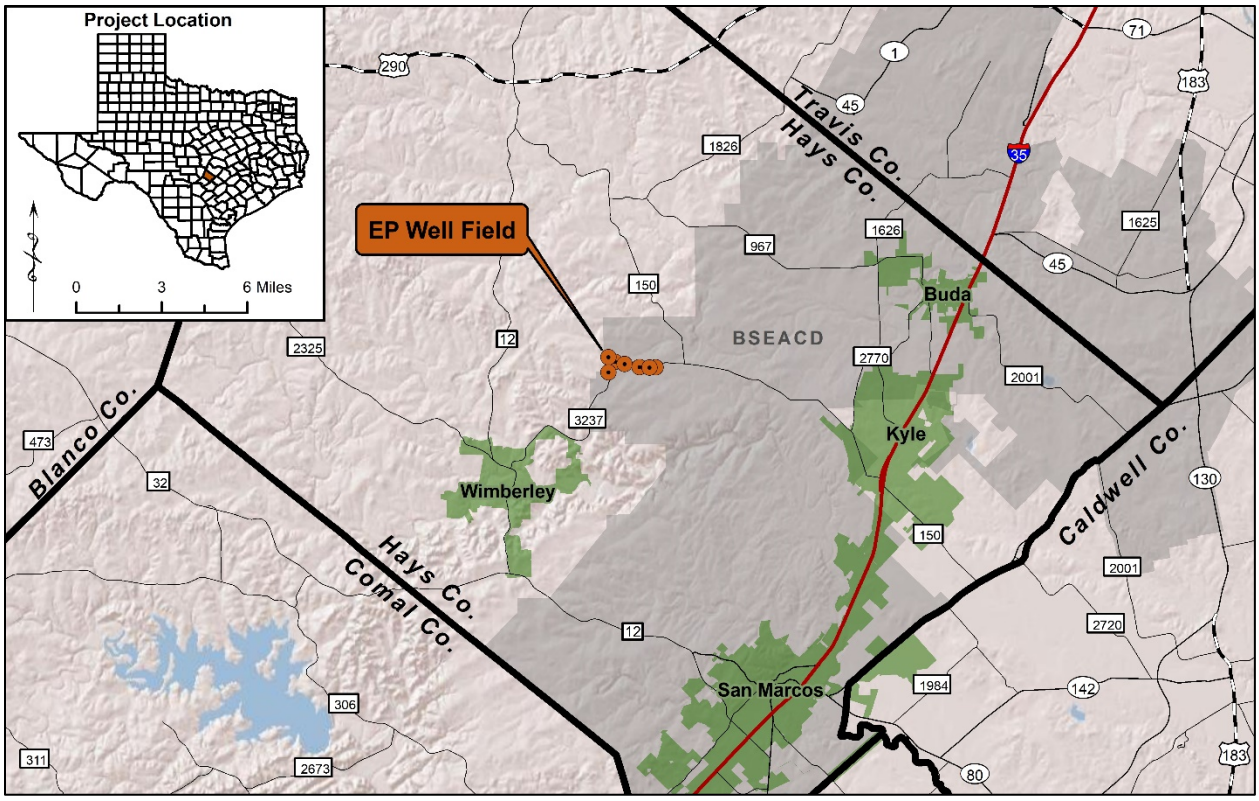


Figure 1: Location Map of EP Well Field

I.2. Hydrogeology and Conceptual Model

The EP Well Field sits atop a relatively thin portion of the recharge zone of the Edwards Aquifer (Figure 2). The Middle Trinity Aquifer, comprised of the Lower Glen Rose, Hensel (Bexar Shale), and Cow Creek member formations, is under confined conditions in the area of the EP Well Field. Confined groundwater is isolated from the atmosphere at the point of discharge by impermeable geologic formations, and the confined aquifer is generally subject to pressures higher than atmospheric pressure (Driscoll, 1986).

Typically, the highest yielding aquifer of the Trinity Aquifers is the Middle Trinity, specifically the Cow Creek Member of the Travis Peak Formation. This formation is, in some localities, a heavily fractured limestone/dolomite, making it more productive because of its enhanced ability to transmit groundwater.

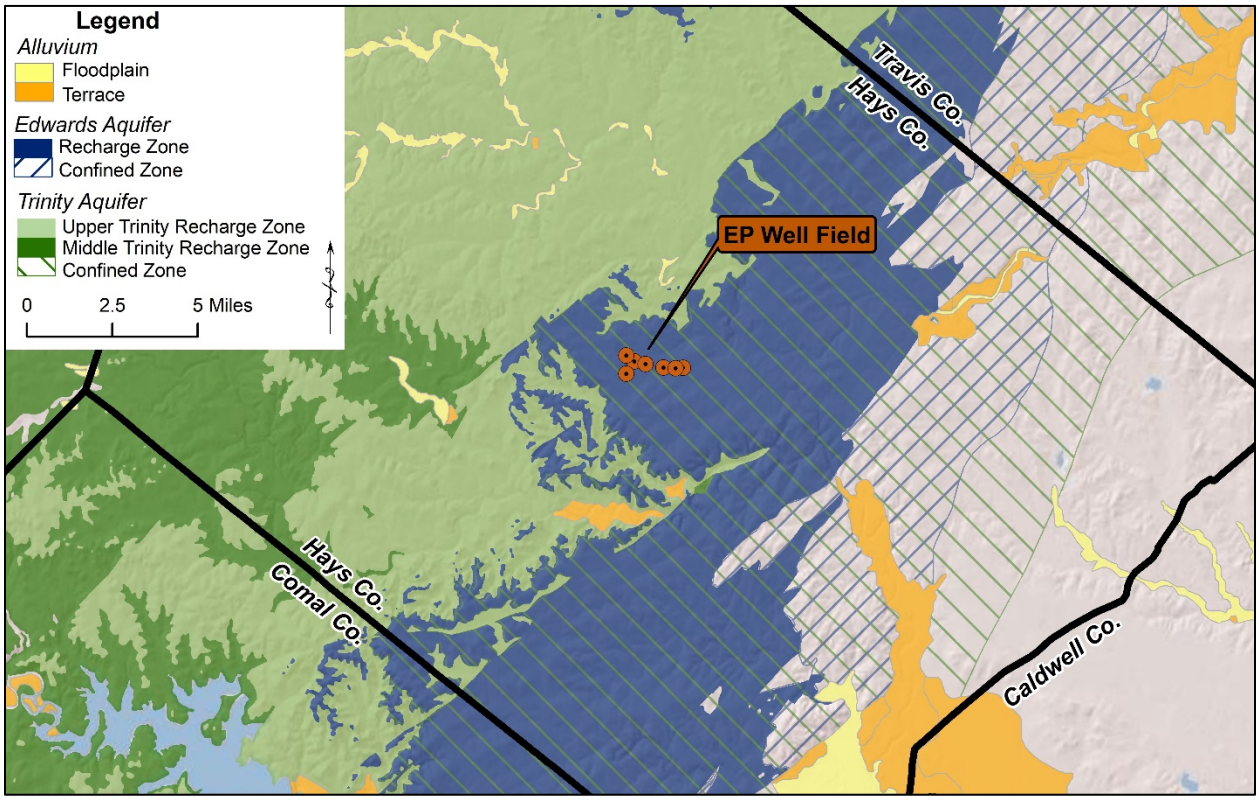


Figure 2: Aquifer Map

Regionally, the Cow Creek Member is hydraulically connected to the Middle Trinity Aquifer especially where the Hensell Sands are present. The Middle Trinity aquifer receives recharge in areas where streams cross the recharge zone and, to a lesser degree, from precipitation infiltration. Regional water level studies (Watson et. al, 2014) indicate that flow is generally from the recharge zone in a southeast direction. Wierman and others (2008) have indicated that faults across the Balcones Fault Zone (BFZ) may be acting as partial barriers to flow. Indications of flow and connection across the aquifer regionally have been shown by Hunt and others (2015), which suggest that flow from the recharge zone moves towards the BFZ and across some faults via relay ramps. Flow across faults occurs where faults have small displacement, or where permeable units are juxtaposed with other permeable units (Hunt et. al, 2015).

Recent aquifer testing utilizing a packer indicated some isolation of the Cow Creek Member to overlying aquifer units (Upper Trinity and Lower Glen Rose formations) over the localized area of the EP Well Field (Wet Rock Groundwater Services, 2017). After reviewing the data collected during the aquifer testing, the Cow Creek Member appears to have little to no direct connection to or communication with the Upper Trinity Aquifer. This can be seen in the lack of drawdown associated with the EP well production during testing in multiple monitor wells completed within the Upper Trinity Aquifer. Based upon the data from the hydrogeologic report documenting the aquifer testing, there also appears to be little connection or

communication between the Cow Creek Member and the Lower Glen Rose Formation (Wet Rock Groundwater Services, 2017). Upon review of the data collected during the aquifer testing, the argument can be made that there is a muted response between the two formations as seen by some delayed response in the monitor wells to pumping at the EP wells.

The source of water for the proposed EP wells over the short term (years) and long-term (decades) is from the Middle Trinity Aquifer. Locally, the data from the EP aquifer testing suggests some compartmentalization of the Cow Creek Member. Initially, water to the EP wells will come from storage in the Cow Creek until a source of recharge is intersected, the timeline of that occurrence is not known based upon the data; that may be on the order of months or years. In the area of the EP Well Field, we do not have enough information to determine the length of time for that intersection to occur. Over the long term, the source of water will come regionally from the aquifer as recharge occurs and moves downgradient.

I.3. Project Purpose and Goals

The EP Wells will produce solely from the Cow Creek Member of the Middle Trinity Aquifer and serve as an additional public water supply source within Hays County for the Goforth Special Utility District (Goforth SUD). A contract is currently in place between EP and the Goforth Special Utility District (Goforth SUD) for EP to deliver water produced from the EP Well Field to Goforth SUD. The overall goal of the EP Project is to provide a sustainable, relatively inexpensive water resource within Hays County, Texas that has experienced unpredicted rapid population growth and development.

According to the General Manager's preliminary findings, long-term production from the EP Well Field may have "the potential to cause unreasonable impacts," to surrounding wells. Pursuant to District Rule 3-1.4.G., based upon those preliminary findings, EP has exercised the option to submit and implement a compliance monitoring plan (the "Plan") (BSEACD, 2017). EP's Plan includes the following:

1. A compliance monitoring well network that utilizes specified index and monitor wells to measure drawdown and water quality around the EP Well Field; and,

2. A set of avoidance measures and actions, including trigger curtailments and/or reductions, that will facilitate the ability to prevent potential unreasonable impacts from occurring.

The purpose of the Plan and monitoring network is to provide (i) the District real-time data needed to assess the impacts of the pumping from the EP Well Field on the Middle Trinity aquifer over time, and (ii) assure compliance with EP's permit conditions put in place to avoid unreasonable impacts.

II. Compliance Monitoring Well Network

In an effort to avoid unreasonable impacts to surrounding well owners, the District will continually monitor water levels and water quality to base production volumes on potentially dynamic aquifer conditions. The water levels will be measured in an Index Well that is currently utilized by the District (Driftwood Westbay Multiport Well) and multiple monitor wells completed within the Cow Creek, Lower Glen Rose, and Upper Glen Rose formations. Appendix A provides a map of the index and monitor wells in the area of the EP Well Field that will be relied upon to implement the Plan. Appendix B provides a

cross-section of the Index Well with proposed Trigger Levels to implement approved avoidance measures.

II.1. Index Well (Driftwood Westbay Multiport Index Well)

1. Cow Creek Port 2 – Compliance Levels

    a. **Compliance Level 4:** 703 feet below ground surface (ft. bgs) - 100% EP Production cutback.

    The reasoning behind Compliance Level 4 is that the Cow Creek Member should be saturated at all times. This will protect the aquifer and allow all Cow Creek wells the ability to produce the volumes of water historically pumped. Pumping levels at the EP Wells will be lower than surrounding wells since most of the production will occur here. The intent for Level 4 is to set a water level at the Index Well which would correlate to a pumping level at the EP wells near the top of the Cow Creek Member.

    703 ft. at the Index Well represents a level which approximates the cone of depression extending from the EP wells. This means that when the water level at the EP wells are at the top of the Cow Creek, the anticipated water level at the Index Well is near 703 ft.

    b. **Compliance Level 3:** 683 ft. bgs - 40% EP Production cutbacks.

    Level 3 follows the same principal of maintaining full saturation of the Cow Creek Member. The purpose of a Level 3 cutback is to delay or avoid subsequent triggers. Level 3 is located 20 ft. above Level 4.

    c. **Compliance Level 2:** 663 ft. bgs - 20% EP Production cutbacks

    Level 2 is set 40 ft. above Compliance Level 4 and 85 ft. above the top of the Cow Creek Member at the Index Well. Production cutbacks begin at this level with a 20% decrease in production. Level 2 follows the same principal of maintaining full saturation of the Cow Creek Member and is set to delay or avoid subsequent triggers.

    d. **Compliance Level 1:** 500 ft. bgs

    Level 1 is an observational stage and requires no cutbacks in EP's Well Field production.

The objective of the Compliance Levels for the Cow Creek Member is to protect the full saturation of the Cow Creek Member and to prevent dewatering. The proposed levels will allow all Cow Creek wells to continue to produce the volumes of water historically utilized, thereby protecting all well owners in the area of the EP Well Field. One concern the District has is protection of Lower Glen Rose wells and if an impact to these wells was seen by pumping the Cow Creek Member. If there is a stronger connection from pumping the Cow Creek Member to the Lower Glen Rose Formation, then Compliance Monitoring Levels set within the Lower Glen Rose Formation will provide protection for these wells. This will allow all Lower

Glen Rose well owners to continue to produce what they have historically pumped prior to the granting of EP's Permit.

2. Lower Glen Rose Port 8 – Compliance Levels

   a. **Compliance Level 4:** 510 ft. bgs - 100% EP Production cutback.

      Level 4 represents the top of the upper reef section of the Lower Glen Rose Formation at the Index Well. The reasoning behind Level 4 was to maintain full saturation of the top of the producing section in the Lower Glen Rose Formation. A 100 % cutback in production from the EP Well Field at this level will allow for all Lower Glen Rose wells to produce the volumes of water they have historically pumped.

   b. **Compliance Level 3:** 450 ft. bgs - 40% EP Production cutback.

      Level 3 is set 60 ft. higher than Compliance Level 4 and represents the top of the Lower Glen Rose Formation at the Index Well. A 40% cutback in production occurs at Level 3.

   c. **Compliance Level 2:** 430 ft. bgs - 20% EP Production cutback.

      Level 2 is set 80 ft higher than Compliance Level 4 to delay or avoid subsequent triggers and to allow for sufficient reduction in pumpage from the EP Well Field to maintain saturation of the top of the upper reef section of the Lower Glen Rose Formation.

   d. **Level 1:** 340 ft. bgs

      Level 1 is an observational stage and has no cutbacks in EP Well Field production.

The Compliance Levels for the Lower Glen Rose Formation are set to protect the full saturation of the upper most production zone of the aquifer. This will allow Lower Glen Rose wells to continue to produce the volumes of water historically utilized and protects well owners in the area. One concern the District has is protection of Lower Glen Rose wells and if an impact to these wells was seen by pumping the Cow Creek Member. These compliance levels will provide protection for these wells.

There are potentially numerous Lower Glen Rose wells in the vicinity of the EP Well Field which could have the ability to cause significant drawdown in the Index well. For example, a domestic well (State of Texas Well Report Tracking No. 333813) approximately 1,500 feet from the Index Well has a documented drawdown of 598 feet after pumping 4 gpm for 45 minutes. Another domestic well (State of Texas Well Report Tracking No. 361590) approximately 2,450 feet from the Index Well had a reported water level of 413 feet when it was drilled. Both of these examples show water levels within the Lower Glen Rose Formation that could potentially reach the proposed compliance levels before the EP Well Field begins to produce water. Based upon initial monitoring of the water levels in the Lower Glen Rose Formation near the EP Well Field prior to production, EP and the District may reevaluate the compliance levels for the Lower Glen Rose Port 8 Index Well.

One concern EP has regarding the Lower Glen Rose is that water levels are not as stable as the

Cow Creek Member. Water levels in the Lower Glen Rose rise and fall a larger amount based upon precipitation and pumping. Additionally, there are a number of known illegal dual completed wells in the Lower Glen Rose and Upper Trinity Aquifer. Pumping from these improperly completed wells could affect the readings in the Index Well. Language regarding drawdown caused by third-party groundwater production needs to be included in the compliance monitoring levels established for EP.

II.2. Cow Creek Member Monitor Wells

EP aims to utilize wells that are presently or have been monitored by the District in the past. During the aquifer testing of the EP wells, several nearby landowners granted access and permission to the District to monitor their wells. EP wishes to build on the datasets from these wells and incorporate them into the monitoring network. They are near the EP Well Field and could provide pertinent insight to the aquifer conditions. In addition to the Index Well (Cow Creek Port 2), the following five (5) wells completed in the Cow Creek Member, and a sixth well to be constructed by EP and completed in the Cow Creek Member, will be utilized as Monitoring Wells:

1) Bowman Well;

2) Ochoa Well;

3) Lowe Well;

4) Wood 01 Well;

5) Escondida Well; and

6) EP Western Monitoring Well (to be completed).

II.3. Lower Glen Rose Monitor Wells

EP aims to protect groundwater users that have wells completed within the Lower Glen Rose Formation. In order to adequately assess the influence of the EP Well Field on the formation, EP wishes to build on the datasets that were collected during previous aquifer testing. Wells immediately adjacent to the EP Well Field are ideal for monitoring the Lower Glen Rose water levels. In addition to the Index Well (Lower Glen Rose Port 8), the following well completed in the Lower Glen Rose Formation will be utilized as a Monitoring Well:

1) Odell Well No. 1.

II.4. Upper Glen Rose Monitor Wells

Based upon the results of the EP aquifer testing reported in Wet Rock Groundwater Services, 2017, we do not see any evidence that production from the Cow Creek Member is hydraulically connected to the Upper Trinity Aquifer. There are many domestic wells completed in the Upper Trinity Aquifer which account, in large part, for the large water level variations that can be observed over short time periods in the Upper Trinity Aquifer. For these reasons, EP has not set any compliance monitoring levels within the Upper Trinity Aquifer. However, EP will pay for or construct an Upper Trinity monitoring well to be located between Bridges Well 1 and Bridges Well 2 to monitor conditions in the aquifer:

1) EP UGR Monitoring Well.

II.5. Well Design and Construction

Each of the monitoring wells are identified in the map in Appendix A. Table 1 provides a summary of the well construction for each monitoring well; Appendix C provides the available construction datasheets for each of the existing wells. The EP Western and EP UGR wells will be constructed or paid for by EP. EP will also equip the Cow Creek Port 2 & Lower Glen Rose Port 8 in the Driftwood Westbay Multiport Index Well, the new EP Western Monitoring Well, and EP UGR Monitoring Well with transducers capable of measuring water level & temperature and telemetry so that more robust datasets can be collected. The transducers will be linked to a transmitter that will allow for real-time access to the data. Appendix D shows the design schematics for the proposed EP Western and EP UGR monitoring wells.

Table 1: EP Well Field Monitoring Well Construction Summary

Well	Construction Date	Elevation (ft msl)	Aquifer	Borehole Dia. (in)	From (ft bgs)	To (ft bgs)	Casing Type	Casing Size (in)	From (ft bgs)	To (ft bgs)	Pump Set (ft bgs)	Well# (TDLR/TWDB)
Bowman	12-20-2013	1118	MT (CC)	9 6 1/4	0 50	50 850	PVC Screen	5 5	+3 810	810 850	*	353577
Proposed EP Western	9-3-2018**	1162**	MT(CC)	9** 6 1/4**	0	800** 860**	PVC** Open**	5** 6 1/4**	+2** 800**	800** 860**	*	*
Proposed EP UGR	9-3-2018**	1018**	UGR	9** 6 1/4**	0	50** 450**	PVC** Open**	5** 6 1/4**	+2** 50**	50** 450**	*	*
Escondida 1	9-12-2016	1104	MT (CC)	10	0	930	PVC Open	5	+3 877	877 930	*	435981
Lowe	4-15-2015	1070	MT (CC)	7 7/8	0	860	PVC Open	4 ½	0 840	840 860	760	394760
Ochoa	3-27-2002	1073	MT(CC)	8 3/4 6	0 50	50 810	PVC Screen	5 5	0 ?	810 ?	660	5764605
Odell 1	1-12-2015	1102	LGR	14 3/4 9 7/8	0 565	565 742	PVC Open	10	+2 565	565 742		388355
Wood 01	10-8-2010	1067	MT(CC)	9 6 ½	0 50	50 790	PVC Screen	5 5	+2 710	710 790	500	233129

Notes: ft. = feet; in. = inches; msl = Mean Seal Level; bgs = Below Ground Surface; * = no data; ** = estimated; LGR = Lower Glen Rose; CC = Cow Creek; UT = Upper Trinity; MT = Middle Trinity

II.6. Schedule for Completion of Work

Upon acquiring its production permit from the District, EP proposes a) to complete Bridges Wells No. 1 and 2 and Odell Well No. 2 to public water supply standards, b) drill and complete Bridges Well 3 and 4 and Odell Well 1 and 2 to domestic well standards, c) construct the two new monitoring wells, and d) order/install transducers in the Index Well and identified monitor wells within 240 days after receiving the production permit.

II.7. Monitoring Well Access

EP agrees to ensure twenty-four hour access by authorized District personnel to each monitoring well within the EP Well Field, and will cooperate with the District in its efforts to secure the right to twenty-four hour access to third party owned monitoring wells, for data collection and water quality sampling.

II.8 Maintenance and Repair Commitments

EP designates the hydrogeologist and drilling contractor as the parties responsible for maintaining, repairing, and equipping the monitoring well network and equipment.

II.9. Water Quality Sampling

In addition to the other monitoring, compliance and avoidance measures outlined in this Plan during the life of its Permit, EP proposes to contribute $1,500 per year to the District for annual water quality sampling of wells in the immediate area of the EP Well Field. Water quality sampling results will be used by the District to monitor changes, if any, over time with production. In addition, if the proper permitting is complete and production ensues, EP will continually monitor water quality per TCEQ public water supply regulations from wells located within the EP Well Field, and report the testing analysis to the District.

II.10. Jacobs Well

Based upon extensive testing and research of the area, EP does not believe any impacts from production of this permit will affect Jacobs Well. However, in an effort to provide more information on studying the connection or lack thereof to Jacobs Well, EP is offering to drill a monitoring well in the Cow Creek Member (EP Western Monitoring Well) west of the production area towards Jacobs Well. EP will equip this well with a transducer and telemetry to monitor aquifer levels and confirm the non-impacts of production on water levels in the vicinity of Jacobs Well.

II.11. Other Relevant Information

The proposed information within this Plan indicates EP's commitment, cooperation, and agreement that the monitor well network is appropriate and satisfactory to monitor and avoid potential unreasonable impacts. In an effort to extend its commitment to protect against unanticipated claims of perceived or potential unreasonable impacts, EP has included a proposed mitigation plan to address the same in Section IV for the General Manager's review and approval.

III. Impact Avoidance Plan (District Rule 3-1.4 G.4 a-h)

The following is an Impact Avoidance Plan (IAP) detailing EP's proposed avoidance measures. The planning and implementation of the IAP shall be closely coordinated with the District staff to ensure that the proposed plan is consistent with District expectations, rules, and guidelines. After EP has received official notification and instruction from the District, it shall implement applicable measures of the approved IAP. EP proposes to incorporate the following elements into the IAP document:

A. Objectives

In connection with its request for a permit authorizing the production of up to 912,967,200 gallons (~ 2.5 million gallons per day; MGD) from the Trinity Aquifer, consistent with District Rule 3-1.4G.4., EP proposes to incorporate the additional avoidance measures as part of its intent to avoid unreasonable impacts:

- Phase production over time in five (5) phases corresponding to water demand and District guidelines: Phase I, Phase II, Phase III, Phase IV and Phase V;
- Set up an index well with defined compliance levels and prescribed responses for the Cow Creek and Lower Glen Rose formations;
    - BSEACD Westbay Multi-Port Well with pumpage cutbacks at trigger levels outlined in Compliance Monitoring Plan;
- Set up a monitoring well network in coordination with the District for comprehensive observation of the water levels and water quality within the Upper and Middle Trinity aquifers (outlined in Compliance Monitoring Plan);
    - BSEACD Monitor Wells;
    - EP Western Monitoring Well;
    - Odell Well No. 1;
    - EP UGR Monitoring Well.
- Offer at EP's expense to lower well owners' pump below the Compliance Monitor Level 4 trigger or to base of the well (whichever is deeper) prior to EP's commencement of pumping;
    - Cow Creek wells (Cow Creek Compliance Level 4);
    - Lower Glen Rose wells (Lower Glen Rose Compliance Level 4).

B. **Financial Commitment**. EP will either (i) fund a Trust identifying the BSEACD as the Beneficiary, or (ii) secure a Bond payable to BSEACD in the amount of not less than $50,000.00 to support its financial commitment to implement its Impact Avoidance Plan. The funding of the Trust or Bond will be replenished at least annually by EP as a condition to the renewal of its Permit. All income generated from any monies in the Trust and made available for purposes of the Trust. EP's Financial Commitment

will be maintained to cover the costs associated with the implementation of EP's Impact of Avoidance Plan during the life of the EP Permit.

C. Avoidance Actions

1. Phased Permit Volumes

Phase I – (.75 MGD) = 273,750,000 gallons per year

The purpose of phasing production from the EP Well Field is to fulfill the contract obligations of EP to its customers and to satisfy the District requirements for estimating long-term impacts on the aquifer. Phase I is intended as a proof of concept for the ability of the EP Well Field to produce certain quantities of groundwater without resulting in unreasonable impacts to surrounding wells. After review of the permitted wells within 2 miles of the EP Well Field that are completed in the Cow Creek Member, the shallowest recorded pump setting is within the Wood 01 Well (Figure 1). The pump setting is 500 ft. bgs. Based upon the goals set for Phase I by both the District and EP (*annual production volume does not have the potential to cause unreasonable impacts*), the drawdown from the EP Well Field must not cause the water level to drop below 500 ft. bgs at the Wood 01 Well.

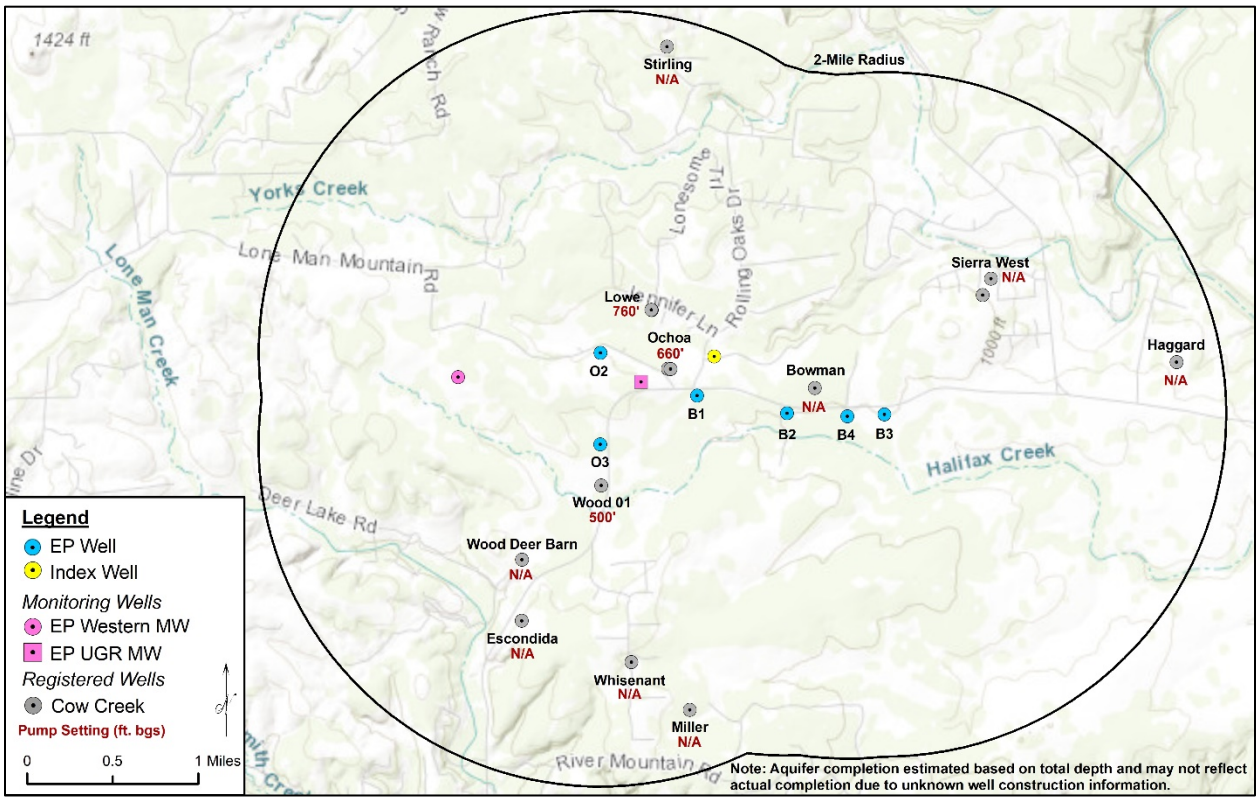


Figure 3: Map of EP Well Field and Registered Cow Creek Wells within a 2-mile Radius

Estimated Drawdown and Effects of Pumping

The parameters provided in Wet Rock Groundwater Services, 2017 (Letter Report dated 12-14-2017); Tables 5 through 11 were used to calculate the drawdown estimates at the Wood 01 Well. A one (1) year time period was used to model the pumping volume that would result in a water level of less than 500 ft. bgs at the Wood 01 Well. Table 1 provides a summary of the drawdown estimations across the EP Well Field after one (1) year of pumping at 1.0 MGD.

Well	Data	Aquifer	Modeled Drawdown (ft) After 1 Year										
			Bridges 2	Bridges 1	Odell 2	Bridges 3	Bridges 4	Odell 1	Odell 3		SWL		
			59 gpm	258 gpm	224 gpm	19 gpm	26 gpm	38 gpm	70 gpm	Combined (1.0 MGD)	Prior to aquifer testing ^	Combined Drawdown from SWL^	Pump Set
											(ft bgs)	(ft bgs)	(ft bgs)
Bowman	Periodic	MT (CC)	28.67	85.28	4.42	1.27	2.00	1.97	3.31	126.92	291.40	418.32	
Bridges 1	Continuous	MT (CC)	18.76	140.63	33.29	3.35	5.03	4.76	22.98	228.81	250.10	478.91	
Bridges 2	Continuous	MT (CC)	96.30	88.03	22.10	0.71	7.60	6.04	10.28	231.06	233.70	464.76	
Bridges 3	Continuous	MT	4.39	8.95	8.04	190.66	1.80	1.37	2.33	217.54	298.25	515.79	
Bridges 4	Continuous	MT	17.11	54.98	8.58	2.98	131.17	3.42	5.84	224.08	289.30	513.38	
Escondida 1	Continuous	MT (CC)	20.24	80.03	25.12	2.11	3.01	5.23	11.02	146.76	338.00	484.76	
Lowe	Continuous	MT (CC)	9.42	68.63	85.11	3.11	4.58	10.55	15.12	196.52	247.00	**443.52**	760
Ochoa	Continuous	MT	22.02	98.00	50.90	3.82	5.65	14.27	18.85	213.50	258.00	**471.50**	660
Odell 1*	Continuous	LGR	0.89	2.23	2.18	0.08	0.12	1.65	0.61	7.76	250.30	258.06	
Odell 1***	Continuous	MT	9.02	57.59	84.96	2.82	3.35	98.19	14.34	270.27	349.00	619.27	
Odell 2	Continuous	MT (CC)	6.92	62.64	110.43	2.34	3.45	9.57	14.55	209.90	265.40	475.30	
Odell 3	Continuous	MT	12.91	91.01	41.08	3.67	5.31	5.65	109.19	268.82	261.80	530.62	
Wood 01	Continuous	MT	24.05	99.68	31.52	3.37	4.88	9.70	23.44	196.65	259.30	**455.95**	500

Notes: SWL= Static Water Level; bgs = Below Ground Surface; * Aquifer Testing in 2013 and 2014; ** Aquifer Testing in October 2016; * Completed as Middle Trinity well; LGR = Lower Glen Rose; CC = Cow Creek; MT = Middle Trinity**

Table 1: Summary of modeled drawdown after 1 year of pumping 1.0 MGD

Based on a production permit of 2.5 MGD, the proposed pumping rates for the EP wells would reflect the following:

- Bridges Well No. 1: 645 gpm (37%);
- Bridges Well No. 2: 148 gpm (8.5%);
- Bridges Well No. 3: 48 gpm (2.75%);
- Bridges Well No. 4: 66 gpm (3.75 %);
- Odell Well No. 1: 95 gpm (5.5%);
- Odell Well No. 2: 560 gpm (32%); and,
- Odell Well No. 3: 175 gpm (10%).

In order to utilize the EP wells and satisfy the Phase I requirements, the pumping rates for the wells were reduced based upon the contributing percentage of each to the total volume. For example, Bridges Well No. 2 provides approximately 8.5% of the total pumpage at the 2.5 MGD rate (148 gpm out of 1,737 gpm); therefore, a modeled pumping rate of 59 gpm was used in the 1.0 MGD scenario (59 gpm out of 695 gpm = ~8.5%).

The modeling results indicate that at 1.0 MGD the EP Well Field would not result in the potential to cause unreasonable impacts to the identified Cow Creek wells within 2 miles of the EP Well Field. The results also indicate that drawdown within the Lower Glen Rose Formation will not exceed 8 feet of drawdown after one year of continuous pumping. The Index and Monitoring wells identified in the Compliance Monitoring Plan will be in place with the associated curtailment triggers for both the Cow Creek Member and the Lower Glen Rose Formation.

Before proceeding to Phase II the following conditions must be met:

1. Must not have reached the aquifer conditions known as Lower Glen Rose Compliance Level 2 or Cow Creek Compliance Level 2 due to pumping activity by EP for a continuous period in excess of 30 calendar days as a result of production from the EP Well Field authorized by the EP Permit. In the event the level is achieved, EP and BSEACD will coordinate to determine the cause of the event, including possible third-party pumping and/or ongoing drought conditions. The Parties will work together to address any EP corrections to the event to ameliorate the conditions, and avoid them in the future.
2. Must have produced an average of 70% of the Phase I annual permit volume for the prior 6 calendar months;
3. Must have contracts in place that support the Phase II volume;
4. Must have mitigated any “unanticipated unreasonable impacts” that occurred during Phase I;
5. Permittee must notify General Manager in writing of its request to move to Phase II volume:
    a. General Manager will respond with a decision to the Permittee’s request within 30 days;
    b. Approval shall be granted if all conditions here within are satisfied;
    c. Approval may be delayed if the District is in Stage II Drought or more severe;

d. Letter of request must include updated plans (Compliance Monitoring Plan (CMP), Mitigation Plan (MP), Impact Avoidance Plan (IAP). The 30 day review period starts when plans and request letter are received.
    - Permittee must submit an updated and revised "Compliance Monitoring Plan (CMP)" if the General Manager determines that to be necessary to address documented conditions in the aquifer caused by production authorized by EP's Permit.
        - Updated plan must be submitted with Permittee's above referenced written request;
        - Updated plan must be consistent with District Rules and agreed upon by District;
        - Updated plan must incorporate additional monitoring wells and/or an additional index well. If an additional index well is necessary, the permittee and District will identify appropriate triggers;
        - Updated plan must consider the additional areas of impact given the scope of the Phase II pumping volume;
    - Permittee must prepare and submit an updated and revised "Mitigation Plan (MP)" if the General Manager determines that to be necessary to address documented conditions in the aquifer caused by production authorized by EP's Permit.
        - Updated plan must be submitted with Permittee's above referenced written request;
        - Updated plan must be consistent with the District rules and agreed upon by District.
    - Permittee must prepare and submit an updated and revised "Impact Avoidance Plan (IAP)" if the General Manager determines that to be necessary to address documented conditions in the aquifer caused by production authorized by EP's Permit.
        - Updated plan must be submitted with Permittee's above referenced written request;
        - Updated plan must be submitted and must satisfy all the IAP elements outlined in the District's correspondence.

6. Prior to receiving an authorization for the Phase II volume approval, and upon receiving a written response from the GM, the Permittee will implement avoidance actions per its prescribed Impact Avoidance Plan (IAP) schedule.
    e. If Permittee does not complete or follow through with its IAP commitments in full and within the prescribed schedule, then the General Manager will delay the Phase II authorization approval for an additional 3 months;
    f. Avoidance measures must be completed for ALL well owners that are i) known to have a well at risk; or ii) have come forth as a cooperative, willing, and eligible well owners;
    g. Unwilling well owners will be identified in writing to BSEACD by EP, including copies of documentation evidencing EP's outreach attempts to the well owner(s).

Phase II – (1.25 MGD) = 456,250,000 gallons per year

After providing proper notification to the District, and having met the goals of Phase I, EP will begin production categorized under Phase II. Much like Phase I, Phase II is meant as a further proof of

concept for the ability of the Cow Creek Member of the Middle Trinity Aquifer to produce certain quantities of groundwater without significant impacts to surrounding wells. The Index and Monitoring wells identified in the Compliance Monitoring Plan will be in place with the associated curtailment triggers for both the Cow Creek Member and the Lower Glen Rose Formation.

Before proceeding to Phase III the following conditions must be met:

1. Must not have exceeded the aquifer conditions known as Lower Glen Rose Compliance Level 2 or Cow Creek Compliance Level 2 for a continuous period in excess of 30 calendar days as a result of production from the EP Well Field authorized by the EP Permit. In the event the level is achieved, EP and BSEACD will coordinate to determine the cause of the event, incurring possible third-party pumping and/or ongoing drought conditions. The Parties will work together to address any EP corrections to the event to ameliorate the conditions, and avoid them in the future.
2. Must have produced an average of 70 % of Phase II annual permit volume for the prior 6 calendar months;
3. Must have contracts in place that support the Phase III volume;
4. Must have completed all commitments and actions outlined in the IAP;
5. Must have mitigated any "unanticipated unreasonable impacts" that occurred as a result solely of production from the EP Well Field during Phase II.
6. Permittee must notify General Manager in writing of its request to move to Phase III volume:
    a. General Manager will respond with a decision to the Permittee's request within 60 days;
    b. Approval will only be granted if all conditions here within are satisfied;
    c. Approval will be delayed if the District is in Stage II Drought or more severe;
    d. Letter of request must include updated plans (Compliance Monitoring Plan (CMP), Mitigation Plan (MP), Impact Avoidance Plan (IAP)). The 60 day review period starts when plans and request letter are received.
        - Permittee must submit an updated and revised "Compliance Monitoring Plan (CMP)" if the General Manager determines that to be necessary to address documented conditions in the aquifer caused by production authorized by EP's Permit;
            - Updated plan must be submitted with Permittee's above referenced written request;
            - Updated plan must be consistent with District Rules and agreed upon by District;
            - Updated plan must incorporate additional monitoring wells and/or an additional index well. If an additional index well is necessary, the permittee and District will identify appropriate triggers;
            - Updated plan must consider the additional areas of impact given of the scope of the Phase III pumping volume;
        - Permittee must prepare and submit an updated and revised "Mitigation Plan (MP)" if the General Manager determines that to be necessary to address documented conditions in the aquifer caused by production authorized by EP's Permit.
            - Updated plan must be submitted with Permittee's above referenced written request if required by the General Manager;

- Updated plan must be consistent with the District rules and agreed upon by District.

- Permittee must prepare and submit an updated and revised "Impact Avoidance Plan (IAP)" if the General Manager determines that to be necessary to address documented conditions in the aquifer caused by production authorized by EP's Permit.
  - Updated plan must be submitted with Permittee's above referenced written request;
  - Updated plan must be submitted and must satisfy all the IAP elements outlined in the District's correspondence.

Phase III – (1.75 MGD) = 638,750,000 gallons per year

After providing proper notification to the District, and having met the goals of Phase II, EP will begin production categorized under Phase III. Much like Phases I-II, Phase III is meant as a further proof of concept for the ability of the Cow Creek Member of the Middle Trinity Aquifer to produce certain quantities of groundwater without significant impacts to surrounding wells. The Index and Monitoring wells identified in the Compliance Monitoring Plan will be in place with the associated curtailment triggers for both the Cow Creek Member and the Lower Glen Rose Formation. Other protocols to ameliorate or resolve significant impacts laid out in this document will also be in place.

Before proceeding to Phase IV the following conditions must be met:

1. Must not have exceeded the aquifer conditions known as Lower Glen Rose Compliance Level 2 or Cow Creek Compliance Level 2 for a continuous period in excess of 30 calendar days as a result of production from the EP Well Field authorized by the EP Permit. In the event the level is achieved, EP and BSEACD will coordinate to determine the cause of the event, incurring possible third-party pumping and/or ongoing drought conditions. The Parties will work together to address any EP corrections to the event to ameliorate the conditions, and avoid them in the future.
2. Must have produced an average of 70 % of Phase III annual permit volume for the prior 6 calendar months;
3. Must have contracts in place that support the Phase IV volume;
4. Must have completed all commitments and actions outlined in the IAP;
5. Must have mitigated any "unanticipated unreasonable impacts" that occurred as a result solely of production from the EP Well Field during Phase III.
6. Permittee must notify General Manager in writing of its request to move to Phase IV volume:
   a. General Manager will respond with a decision to the Permittee's request within 60 days;
   b. Approval will only be granted if all conditions here within are satisfied;
   c. Approval will be delayed if the District is in Stage II Drought or more severe;
   d. Letter of request must include updated plans (Compliance Monitoring Plan (CMP), Mitigation Plan (MP), Impact Avoidance Plan (IAP)). The 60 day review period starts when plans and request letter are received.
      - Permittee must submit an updated and revised "Compliance Monitoring Plan (CMP)" if the General Manager determines that to be necessary to address documented conditions in the aquifer caused by production authorized by EP's Permit;
        - Updated plan must be submitted with Permittee's above referenced written request;

- Updated plan must be consistent with District Rules and agreed upon by District;
- Updated plan must incorporate additional monitoring wells and/or an additional index well. If an additional index well is necessary, the permittee and District will identify appropriate triggers;
- Updated plan must consider the additional areas of impact given of the scope of the Phase III pumping volume;

▪ Permittee must prepare and submit an updated and revised "Mitigation Plan (MP)" if the General Manager determines that to be necessary to address documented conditions in the aquifer caused by production authorized by EP's Permit.

- Updated plan must be submitted with Permittee's above referenced written request if required by the General Manager;
- Updated plan must be consistent with the District rules and agreed upon by District.

▪ Permittee must prepare and submit an updated and revised "Impact Avoidance Plan (IAP)" if the General Manager determines that to be necessary to address documented conditions in the aquifer caused by production authorized by EP's Permit.

- Updated plan must be submitted with Permittee's above referenced written request;

Updated plan must be submitted and must satisfy all the IAP elements outlined in the District's correspondence.

Phase IV (2.25 MGD) = 821,250,000 gallons per year

After providing proper notification to the District, and having met the goals of Phase III, EP will begin production categorized under Phase IV. Much like Phases I-III, Phase IV is meant as a further proof of concept for the ability of the Cow Creek Member of the Middle Trinity Aquifer to produce certain quantities of groundwater without significant impacts to surrounding wells. The Index and Monitoring wells identified in the Compliance Monitoring Plan will be in place with the associated curtailment triggers for both the Cow Creek Member and the Lower Glen Rose Formation. Other protocols to ameliorate or resolve any significant impact laid out in this document will also be in place.

Before proceeding to Phase V the following conditions must be met:

1. Must not have exceeded the aquifer conditions known as Lower Glen Rose Compliance Level 2 or Cow Creek Compliance Level 2 for a continuous period in excess of 30 calendar days as a result of production from the EP Well Field authorized by the EP Permit. In the event the level is achieved, EP and BSEACD will coordinate to determine the cause of the event, incurring possible third-party pumping and/or ongoing drought conditions. The Parties will work together to address any EP corrections to the event to ameliorate the conditions, and avoid them in the future.
2. Must have produced an average of 70 % of Phase IV annual permit volume for the prior 6 calendar months;
3. Must have contracts in place that support the Phase V volume;
4. Must have completed all commitments and actions outlined in the IAP;
5. Must have mitigated any "unanticipated unreasonable impacts" that occurred as a result solely of production from the EP Well Field during Phase III.

6. Permittee must notify General Manager in writing of its request to move to Phase IV volume:
    a. General Manager will respond with a decision to the Permittee's request within 60 days;
    b. Approval will only be granted if all conditions here within are satisfied;
    c. Approval will be delayed if the District is in Stage II Drought or more severe;
    d. Letter of request must include updated plans (Compliance Monitoring Plan (CMP), Mitigation Plan (MP), Impact Avoidance Plan (IAP)). The 60 day review period starts when plans and request letter are received.
        - Permittee must submit an updated and revised "Compliance Monitoring Plan (CMP)" if the General Manager determines that to be necessary to address documented conditions in the aquifer caused by production authorized by EP's Permit;
            - Updated plan must be submitted with Permittee's above referenced written request;
            - Updated plan must be consistent with District Rules and agreed upon by District;
            - Updated plan must incorporate additional monitoring wells and/or an additional index well. If an additional index well is necessary, the permittee and District will identify appropriate triggers;
            - Updated plan must consider the additional areas of impact given of the scope of the Phase III pumping volume;
        - Permittee must prepare and submit an updated and revised "Mitigation Plan (MP)" if the General Manager determines that to be necessary to address documented conditions in the aquifer caused by production authorized by EP's Permit.
            - Updated plan must be submitted with Permittee's above referenced written request if required by the General Manager;
            - Updated plan must be consistent with the District rules and agreed upon by District.
        - Permittee must prepare and submit an updated and revised "Impact Avoidance Plan (IAP)" if the General Manager determines that to be necessary to address documented conditions in the aquifer caused by production authorized by EP's Permit.
            - Updated plan must be submitted with Permittee's above referenced written request;

Updated plan must be submitted and must satisfy all the IAP elements outlined in the District's correspondence.

Phase V (2.5 MGD) = 912,500,000 gallons per year

After providing proper notification to the District, and having met the goals of Phase IV, EP will begin production categorized under Phase V. Phase V represents the full-scale production quantity of the EP Well Field. The Index and Monitoring wells identified in the Compliance Monitoring Plan will be in place with the associated curtailment triggers for both the Cow Creek Member and the Lower Glen Rose Formation. Other protocols to ameliorate or resolve any significant impacts laid out in this document will also be in place.

2. Additional Impact Avoidance Actions

- **Public Notification**. Part 1 Timeline: Implement within 30 days of receiving District Instruction
    - Public notices will be mailed, certified mail, to persons known to have wells potentially impacted by EP's permits. EP will coordinate with BSEACD to develop a list of such persons.
    - A public notice of EP's Project, including notice of a request to well owners in the Cow Creek formation to contact BSEACD to register the wells will be published in a paper of general circulation in Hays County.
    - A copy of EP's Impact Avoidance Plan will be published by BSEACD on its website.
    - Mail certified letters to all landowners within a 2 mile radius of the EP Well Field based upon current Hays County tax roll.
    - Provide signs for the following neighborhoods within a 2 mile radius of the EP Well Field:

      _____ subdivision;

      _____ subdivision
    - Host a public meeting in coordination with District staff. Comments received after the meeting will be considered by the permittee and District, and a response posted on the BSEACD website.
- **Implementation**. Part 2 Timeline: Implement within 90 days of completing Part 1 of IAP
    - EP will identify its project administrator contact information to BSEACD as the person to coordinate well work with drillers and landowners. District must approve the designated administrator.
    - EP will work with BSEACD to identify a list of licensed well drillers not subject to any pending violation or enforcement actions by BSEACD for use to conduct well investigations and/or pull or lower pumps pursuant to the EP Impact Avoidance Plan.
- **Eligibility**. As of the date of publication of notice of BSEACD's preliminary determination on EP's well permit, all existing wells that meet the criteria set forth herein shall be considered to be "Eligible Wells" during the term of the EP Permit:

  (i) All registered well owners who, to the satisfaction of BSEACD, have previously documented the completion and pump depth of their wells as being in the Cow Creek formation above the Level 4 Compliance "trigger" shall be eligible to have their pumps lowered by a licensed contractor at EP's cost.

  (ii) After that date, well owners whose wells were drilled prior to the date of publication of notice of the District's preliminary determination on EP's well permit, but were not registered with the BSEACD, may seek to qualify as eligible for impact avoidance as follows:

  (a) In the event additional landowners are identified as possibly having wells completed in the Cow Creek above the designated Monitor Level 4 "trigger," EP will conduct with BSEACD and the landowner to investigate and confirm whether

the well is completed in the Cow Creek Formation and above the Level 4 "trigger" as follows:

(1) The Landowner will register its well with BSEACD and provide the District with Copies of all information and records available on the well, including driller reports and logs;

(2) As a condition precedent to EP's being required to take impact avoidance mitigation measures to a specific individual well, the well owner must take the following actions, satisfactory to the BSEACD's General Manager:

- Proof that the allegedly impacted well was drilled by to the date BSEACD issued its preliminary determination on EP's Well Application; and

- Proof that the allegedly impacted well is fully compliant with the district's enabling legislation and rules, chapter 36, Texas Water Code, and the applicable rules of the Texas Department of Licensing (currently codified in 16 TAC Chapter 76), including registration with and, if applicable, permitting by BSEACD; and

- Proof that the allegedly impacted well is fully maintained and operational; and

- Copies of the well owners most recent (i) well maintenance records, (ii) groundwater production reports, (iii) groundwater quality testing reports, and (iv) any available information related to the well owner's efforts to corrective action or otherwise address the alleged impact to the allegedly impacted well; and

- Information regarding (i) groundwater production in the vicinity of the allegedly impacted well, (ii) regional climatic conditions, (iii) BSEACD Records on groundwater production and/or drilling activity in the vicinity of the allegedly impacted well; and

- Any other information reasonably determined to be necessary by BSEACD for a fair and complete assessment of the alleged impacts, and a determination that the cause of the alleged impact is production from the EP Well Field.

(3) Based upon the information gathered pursuant to Paragraph (2), data and other pertinent information available from the District's records, and any information, records and data, or modeling or analysis provided to the District by EP, the BSEACD will prepare a report assessing the alleged impact and the potential cause(s) of the alleged impact. The Report shall include at a minimum the following information:

- the name of the well owner and the address of the location of the allegedly impacted well, and a description of the alleged impact and

the well owners basis for suspecting that production from the EP Well Field is the cause;

- a map showing registered and District permitted well locations that are registered with or permitted by the District in the vicinity of the allegedly impacted well;

- District data related to water use and production rate records for registered and permitted wells located within one mile of the allegedly impacted well;
- a description of the hydrogeology in the vicinity of the allegedly impacted well;

- a listing of records and any evidence and/or analysis collected during the District's investigation regarding the relationship between the allegedly impacted well and (i) production from the EP Well Field, and/or production from any other know well(s), whether or not the well(s) is a registered or permitted well; and

- the General Manager's preliminary conclusions and recommendations as to the cause of the alleged impact, and whether EP should be responsible to carry out impact avoidance or other mitigation action with respect to the allegedly impacted well based upon the available data and other evidence.

(4) The District shall deliver copies of the General Manager's Report, including any recommendations, to both the owner of the allegedly impacted well and EP.

- In response to the General Manager's recommendations, EP can elect one of the following:

  - Carry out the General Manager's recommendations;
  - Negotiate an alternative resolution of the alleged impacts agreeable to the owner of the allegedly impacted well, subject to compliance with the District's Rules; or
  - Request a hearing on the General Manager's recommendations before the BSEACD Board.

- In response to the General Manager's recommendations, the owner of the allegedly impacted well can elect one of the following:

  - Accept the General Manager's recommendations if agreed to by EP;
  - Negotiate an alternative resolution of the alleged impacts agreeable to EP, subject to compliance with the District's Rules; or

- Request a hearing on the General Manager's recommendations before the BSEACD Board.

- The recommendation of the General Manager, if not appealed to the Board, or the final recommendation of the Board, if not appealed, shall be binding on the Parties.

- In the event the Ruling of the Board is appealed following exhaustion of all administrative remedies, including the filing of a motion for rehearing or reconsideration, the appeal shall be brought by the appealing party in accordance with the laws and rules applicable to the appeal of any other order of the decision by the Board in accordance with Sections 36.066 and 36.251, Texas Water Code.

- In the event of any appeal of the General Manager's recommendations and/or the ruling of the Board, EP's obligation to implement the recommended corrective action, if any, shall be tolled so long as EP's Financial Commitment under this Plan remains in place. Additionally, to mitigate the alleged impact to the allegedly impacted well, the District shall be entitled to access the funds made available pursuant to EP's Financial Commitment, subject to the District's obligation to reimburse EP, and EP's right of reimbursement to the Financial Commitment, in the event that EP prevails in its appeal of the General Managers recommendation and/or Board ruling.

(5) EP will coordinate with the District to verify the completion and pump setting depth. If the depth cannot be verified by means other than pulling the pump under the following conditions agreed to in writing by the Parties in advance:

(a) If the pump depth is confirmed as being in the Cow Creek formation above the Level 4 "trigger," EP will pay the cost, including the lowering of the pump below the "trigger" level;

(b) If the pump depth is confirmed as *not* being in the Cow Creek formation above the Level 4 "trigger," the well owner (*not* EP) will be responsible for all costs associated with the pulling of the pump and its reinstallation.

- **Impact Avoidance Area**. The Impact Avoidance Area associated with the EP Well Field is generally reflected on the Maps included as Figures 1, 3, 4, and Appendix A as the area within a 2 mile radius of the EP Well Field located along FM 3237, approximately 6 miles Northeast of Wimberley, Hays County, Texas. Wells considered to be within the area of potential impact of production from the EP Well Field (the "Avoidance Impact Area")

a. they will be located in Hays County within a 2 mile radius from the EP Well Field as identified in Appendix A; and

b. they will be completed in the Cow Creek Member of the Middle Trinity Aquifer or the Lower Glen Rose Formation of the Middle Trinity Aquifer; and

c. they will have the well pump set to produce from an elevation of 703 feet or less below ground level for Cow Creek wells and 510 ft or less below ground level for Lower Glen Rose wells.

EP proposes to lower existing pumps within the Avoidance Impact Area designated herein in case of unanticipated unreasonable impacts (water levels reaching below pump settings of registered Cow Creek or Lower Glen Rose well owners in connection to EP pumping). Based upon previous aquifer testing and the premise of setting its Cow Creek Compliance Monitor Level 2 "trigger" at 663 ft. bgs at the BSEACD Driftwood Multi-Port Index Well, EP has identified three wells within a two-mile radius (Wood 01, Ochoa and Bowman) whose pump setting is above the Cow Creek Compliance Level 2 "trigger." Based upon previous aquifer testing and the premise of setting its Lower Glen Rose Compliance Monitor Level 2 "trigger" at 430 ft. bgs at the BSEACD Driftwood Multi-Port Index Well, EP has not identified any wells within a 1/2 mile radius whose pumps appear to have been set at a depth above the Lower Glen Rose Compliance Level 2 "trigger." However, given the nature of anisotropy within the aquifer climatic variability, and other unknowns, there is a chance for unanticipated impacts. For this reason, EP has developed specific criteria for mitigating wells that have been impacted.

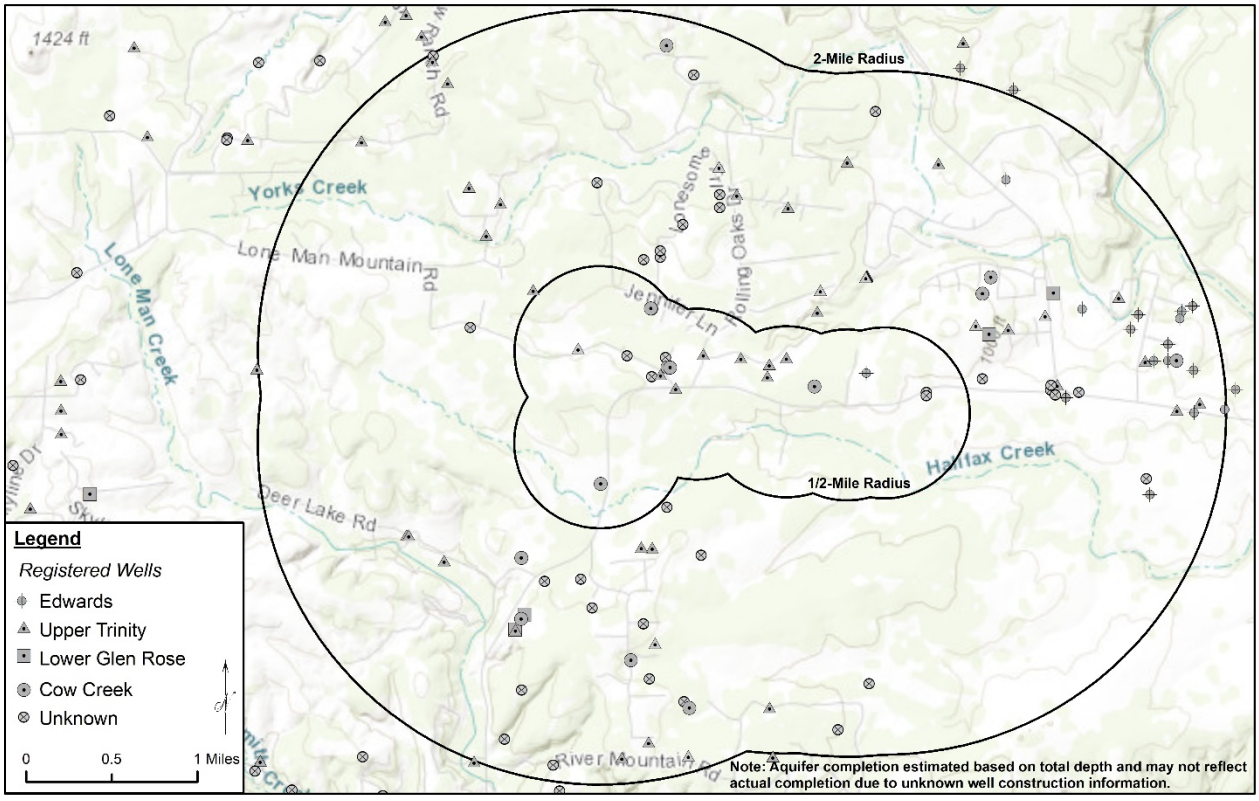


Figure 4: Map of Registered Wells within 2-Mile Radius of EP Well Field

Cow Creek Member Wells

Currently, there are twelve (12) Cow Creek Member wells within a 2-mile radius permitted with the District (Figure 2). A two mile radius was chosen as the Avoidance Impact Area based upon measured drawdown values from the aquifer testing indicating minimal drawdown at these distances (Wet Rock Groundwater Services, 2017 Letter Report dated 12-14-2017).

Lower Glen Rose Formation Wells

Currently, there are no registered wells that are discretely completed within the Lower Glen Rose Formation and seven (7) wells that have unknown completions in the Trinity Aquifer within a 1/2-mile radius permitted with the District (Figure 2). A 1/2 mile radius was chosen as the Avoidance Impact Area for the Lower Glen Rose based upon measured drawdown values from the aquifer testing indicating minimal drawdown at these distances (Wet Rock Groundwater Services, 2017 Letter Report dated 12-14-2017).

D. **Implementation Schedule**. A description of the schedule and timeline for implementing each action or part of the IAP. Responsible parties must be specified. A schedule and timeframe must be provided for each 'avoidance action' which includes the timing and frequency actions.

E. **Implementation Documentation**. A description of the types of documents and reports that will be produced to document actions and schedules of implementation tasks. Responsible parties must be specified. EP will provide the following documents at the following times to BSEACD:

Document	Report
1. Notice of the GM's preliminary determination on the EP Permit.	EP will publish the requisite Notice in a paper of general circulation in Hays County and provide copies of the Publisher's Affidavit to the District pursuant to its Rules.
2. Mailed Notice of the District's preliminary determination of the EP Permit.	EP will provide copies of certified mail return receipts evidencing the mailing of the Notice along with a copy of the mailed Notice to the District in compliance with its Rules.
3. EP will publish Notice of its approved Impact Avoidance Plan in a newspaper of general circulation of Hays County upon approval of the District contemporaneous with the publication of the issuance of the District's preliminary determination on EP's Permit application.	EP will provide a copy of the Publisher's Affidavit and the published Notice to the District.
4. EP will coordinate with the District to post and publish on the District's website a copy of EP's Impact Avoidance Plan.	Documentation of this will be agreed to by the District and EP.
5. EP will post signs regarding its Impact Avoidance Plan at locations agreed to and approved by the District.	EP will document the posting of the notices by affidavit with pictures of the posted notices and filed with the district.

F. **Third Party Contractors**. Contemporaneously with the mailing of outreach letters to eligible well owners EP will submit a list of proposed third party contractors qualified to provide well services, well repairs, well construction and/or well equipment replacement consistent with the Impact Avoidance Plan for verification that the contractors are not subject to any ongoing notice of violation or enforcement action by the District. At least annually, EP shall update the list and verification by the District.

G. **Assessment**. EP is unaware of any other active IAP within the jurisdiction of the BSEACD. EP understands, however, that the proposed IAP is consistent with the provisions of an IAP approved by the District's General Manager in connection with a settlement related to the proposed Needmore Water LLC Permit application currently pending before the State Office of Administrative Hearings (the "Needmore Permit"). Other than the Needmore Permit, EP believes that its proposed IAP meets or exceeds the standards imposed on any other permit within the District. EP also believes that the proposed IAP is consistent with the District's Rules and its Drought Management Plan. In coordination with the BSEACD staff, EP will periodically review and evaluate the performance of the IAP and, as appropriate, provide updates or modifications to the IAP in coordination with the BSEACD staff as outlined herein.

IV. Mitigation Plan Proposal

EP has opted to submit a Mitigation Plan pursuant to BSEACD Rule 3-1.11., entitled "PERMIT COMPLIANCE, MONITORING, AND MITIGATION," for the General Manager's review and approval. If approved by the General Manager, the final agreed upon terms and conditions of EP's Mitigation Plan will be incorporated into EP's permit to serve as a contingency for the occurrence of unreasonable impacts that are unanticipated or unavoidable through reasonable measures, including those incorporated into EP's Compliance Monitoring Plan. EP's proposed Mitigation Plan is attached hereto as Appendix E.

V. References

BSEACD. 2017. Hydrogeologic Setting and Data Evaluation: 2016 Electro Purification Aquifer Test, Cow Creek Well Field: Hays County, Texas. Technical Memo 2017-1010, 73p.

Driscoll, F.G., 1986. Groundwater and Wells (2nd. Ed.): Johnson Division, St. Paul, Minnesota, p. 1021.

Hunt, B.B., Smith, B.A., Andrews, A.A., Wierman, D.A, Broun, A.S and Gary, M.O. 2015. Influence of Faulting and Relay Ramp Structures on Groundwater Flow in the Karstic Edwards and Trinity Aquifers, Central Texas, USA. International Conference on Groundwater Karst (June 2016) University of Birmingham Programme & Abstracts.

Watson, J. A., Hunt, B.B., Gary, M.O., Wierman, D.A. and Smith, B.A. 2014. Potentiometric Surface Investigation of the Middle Trinity Aquifer in Western Hays County, Texas. BSEACD Report of Investigation 2014-1002, 25p.

Wet Rock Groundwater Services, LLC. 2017. Report of Findings – Hydrogeologic Report of the Electro Purification, LLC Cow Creek Well Field. WRGS 17-001, 94 p.

Wet Rock Groundwater Services, LLC. December 14, 2017. Administrative Completeness Review of a Production Permit Application submitted by Electro Purification LLC, for authorization to produce groundwater from the Middle Trinity Aquifer. Letter Report, 270 p.

Wierman, D.A., Broun, A.S., Backus, A.H. and Llano, L. 2008. Cypress Creek/Jacob's Well Hydrogeologic Report, Hays Trinity Groundwater Conservation District, December 2008, 43p.

Appendix A: EP Compliance Monitoring Plan Well Network Map

Westbay Index Well
(Lower Glen Rose Port 8 W.L. - in feet bgs)

Level 1: 340 ft.

Level 2: 430 ft. (20 % cutbacks)

Level 3: 450 ft. (40% cutbacks)

Level 4: 510 ft. (100 % cutbacks)

Westbay Index Well
(Cow Creek Port 2 W.L. - in feet bgs)

Level 1: 500 ft.

Level 2: 663 ft. (20 % cutbacks)

Level 3: 683 ft. (40% cutbacks)

Level 4: 703 ft. (100 % cutbacks)

Lowe
Driftwood
Westbay
O2
Ochoa
Jones
Bowman
O1
B1
EP
UGR MW
B2
B4
B3
O3
Wood 01
EP Western
Monitoring Well
1/2-Mile Radius
Las Lomas
1-Mile Radius
Escondida
Miller
2-Mile Radius

Notes:

1. The EP Western Monitoring Well, Odell Well No. 1 (Lower Glen Rose) Monitoring Well & EP UGR Monitoring Well will be equipped with transducers and telemetry.

2. Based upon the BSEACD well database (3-2-18) we have identified three (3) Cow Creek wells (Wood 01, Ochoa and Bowman) within a 1 mile radius. These wells may be with pumps set below Cow Creek Compliance Monitoring Level 2.

3. EP offers to equip with transducers and telemetry the Driftwood Westbay (Cow Creek Port 2 & Lower Glen Rose Port 8).

Legend

- EP Well
- Index Well

Monitoring Wells

- Upper Trinity
- Upper/Middle Trinity
- Lower Glen Rose
- Cow Creek

Existing Wells

- Edwards
- Upper Trinity
- Lower Glen Rose
- Cow Creek
- Unknown

Note: Aquifer completion estimated based on total depth and may not reflect actual completion due to unknown well construction information.

Scale: 0 1,500 3,000 Feet

Drawn By: KK Date: 4-12-18

Quad Name and No:
Manvel, TX 29095-D3

Projection: UTM NAD 83 Z 14

EP Compliance Monitoring Plan Well Network (Rule 3.1.11.B)

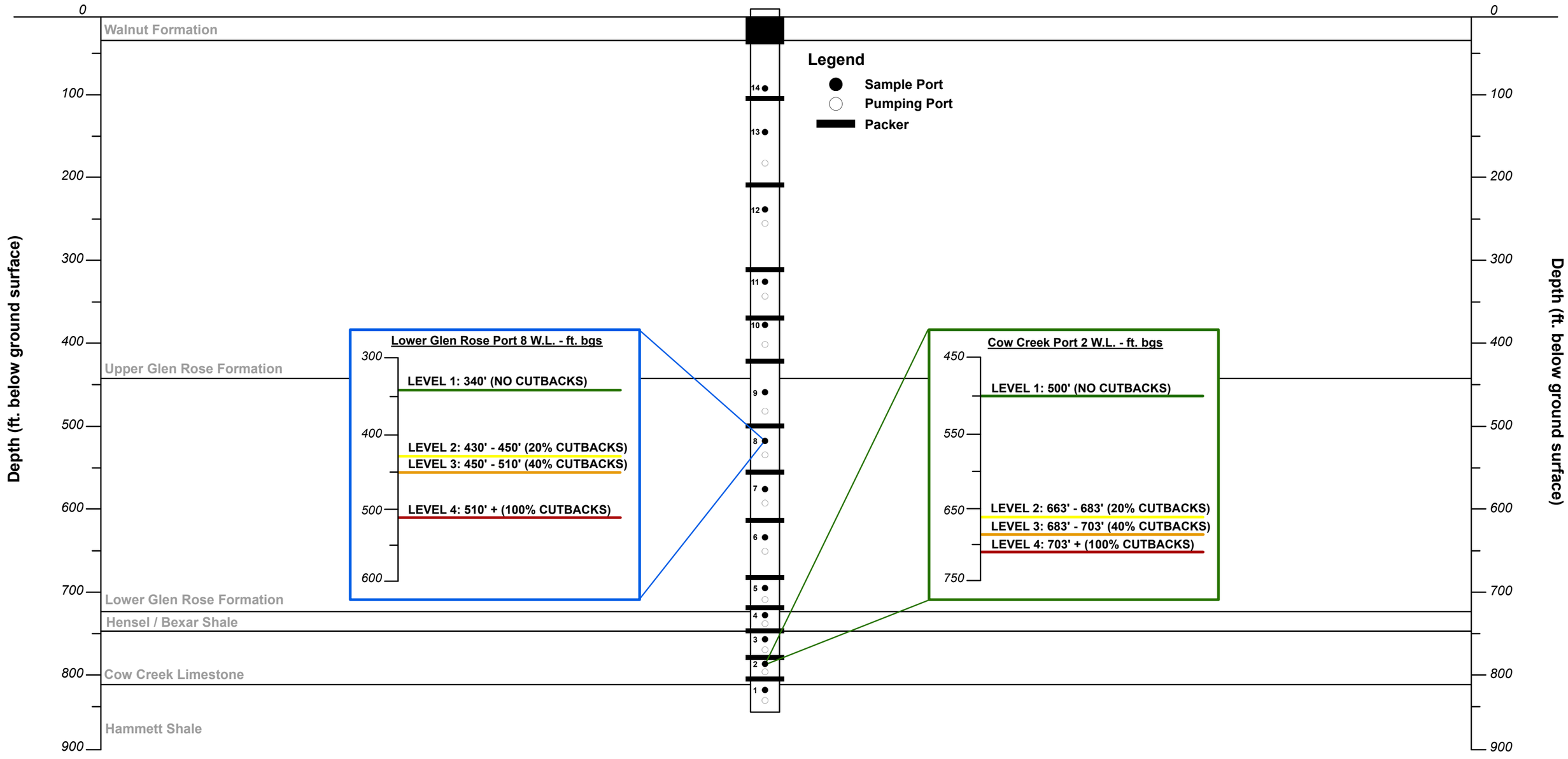
Electro Purification, LLC

Hays County, Texas

Wet Rock Groundwater Services, L.L.C.
Groundwater Specialists
TBPG Firm No: 50038
317 Ranch Road 620 South, Ste. 203
Austin, Texas 78734 Ph: 512.773.3226
www.wetrockgs.com

Appendix B: Index Well Cross-Section and Avoidance Measures

Index Well (BSEACD Driftwood Westbay Well)



EP Compliance Plan - Index Well & Proposed Avoidance Measures

Electro Purification, LLC

Hays County, Texas

Notes:
1. Figure not to scale
2. Well diagram based upon EAA geophysical log provided by BSEACD (2-17-2017)

Drawn By: AW Date: 3-15-18

Wet Rock Groundwater Services, L.L.C.
Groundwater Specialists
TBPG Firm No: 50038
317 Ranch Road 620 South, Ste. 203
Austin, Texas 78734 Ph: 512.773.3226
www.wetrockgs.com

Appendix C: Well Construction Datasheets

OCHOA WELL

Bob Ochoa well
512.934.4771

5/03/02
SUBMITTED

Send original copy by certified mail to: TNRCC, P.O. Box 12157, Austin, TX 78711

Please use black ink.

ATTENTION OWNER: *Confidentiality Privilege Notice on Reverse Side*

State of Texas
WELL REPORT

Texas Water Well Drillers Advisory Council
P.O. Box 12157
Austin, TX 78711
512-463-7880

1) OWNER IRWIN, GORDON (Name) ADDRESS 126 BUMBLE BEE LANE (Street or RFD) DRIFTWOOD, (City) TX, (State) 78619 (Zip)

2) ADDRESS OF WELL:
County HAYS 126 BUMBLE BEE LANE (Street or RFD) DRIFTWOOD, (City) TX, (State) 78619 (Zip) GRID # 57-64-9

3) TYPE OF WORK (Check):
☑ New Well ☐ Deepening ☐ Reconditioning ☐ Plugging

4) PROPOSED USE (Check): ☐ Monitor ☐ Environmental Soil Boring ☑ Domestic ☐ Industrial ☐ Irrigation ☐ Injection ☐ Public Supply ☐ De-watering ☐ Testwell
If Public Supply well, were plans submitted to the TNRCC? ☐ Yes ☐ No

5) N 30° 02.99 W 098° 01.59

6) WELL LOG:
Date Drilling:
Started 03-27-20 02
Completed 03-27-20 02

DIAMETER OF HOLE		
Dia.. (in.)	From (ft.)	To (ft.)
	Surface	
8 ¾"	0	50'
6"	50'	810'

7) DRILLING METHOD (Check): ☐ Driven
☑ Air Rotary ☐ Mud Rotary ☐ Bored
☐ Air Hammer ☐ Cable Tool ☐ Jetted
☐ Other

From (ft.)	To (ft.)	Description and color of formation material
0	1	TOP SOIL
1	30	CALICHE
30	34	BLUE LIME
34	45	TAN
45	610	GRAY
610	730	GRAY/TAN
730	770	GRAY
770	790	BROWN
790	810	GRAY

(Use reverse side if necessary)

8) Borehole Completion (Check): ☑ Open Hole ☐ Straight Wall
☐ Underreamed ☐ Gravel Packed ☐ Other
If Gravel Packed give interval ... from ft. to ft.

CASING, BLANK PIPE, AND WELL SCREEN DATA:

Dia (in.)	New or Used	Steel, Plastic, etc. Perf., Slotted, etc. Screen Mfg., if commercial	Setting (ft.) From	Setting (ft.) To	Gage Casing	Gage Screen
5 OD	N	PVC PLASTIC	+2	810		SCH. 40

9) CEMENTING DATA [Rule 338.44(1)]
Cemented from 0 ft. to 50 ft. No. of sacks used 6 CEMENT
ft. to ft. No. of sacks used 7 VOLCLAY
Method used PRESSURE TRIMMY CEMENTING
Cemented by C. T. D.
Distance to septic system field lines or other concentrated contamination N/A ft.
Method of verification of above distance WELL DRILLED FIRST

10) SURFACE COMPLETION
☐ Specified Surface Slab Installed (Rule 338.44(2)(A))
☑ Specified Steel Sleeve Installed (Rule 338.44(3)(A))
☐ Pitless Adapter Used (Rule 338.44(3)(b))
☐ Approved Alternative Procedure Used (Rule 338.71)

11) WATER LEVEL
Static Level ft. below land surface Date
Artesian flow gpm Date

12) PACKERS:

	Type	Depth
4	BURLAP & PLASTIC	50', 60', 690', 710'

13) TYPE PUMP:
☐ Turbine ☐ Jet ☑ Submersible ☐ Cylinder
☐ Other
Depth to pump bowls, cylinder, jet, etc., ft.

14) WELL TESTS:
Type Test. ☐ Pump ☐ Bailer ☑ Jetted ☐ Estimated
Yield: 50-60 gpm with ft. drawdown after hrs.

15) WATER QUALITY:
Did you knowingly penetrate any strata which contained undesirable constituents?
☐ Yes ☑ No If yes, submit "REPORT OF UNDESIRABLE WATER"
Type of water? GLENROSE Depth of strata 40
Was a chemical analysis made? ☐ Yes ☑ No

I hereby certify that this well was drilled by me (or under my supervision) and that each and all of the statements herein are true to the best of my knowledge and belief. I understand that failure to complete items 1 thru 15 will result in the log(s) being returned for completion and resubmittal.

COMPANY NAME CENTRAL TEXAS DRILLING, INC. (Type or print) WELL DRILLER'S LICENSE NO. #4227

ADDRESS 2620 HWY. 290 WEST (Street or RFD) DRIPPING SPRINGS, (City) TX, (State) 78620 (Zip)

(Signed) Aaron Glass (Licensed Well Driller) (Signed) (Registered Driller Trainee)

Please attach electric log, chemical analysis, and other pertinent information, if available.

TNRCC-0199 (Rev. 11-1-94)
WELL OWNER'S COPY DRILLER'S COPY TNRCC COPY

57-64-605

OCHOA WELL

Texas Water Development Board
Well Schedule

State Well Number 57 64 605 | Previous Well Number | County Hays 209

River Basin Guadalupe 18 | Zone | Latitude 30 02 59 | Longitude 098 01 36 | Coordinates Accuracy O

Owner's well No. | Location: 1/4, 1/4, Section | Block | Survey

Owner Bob Ochoa | Driller Central Texas Drilling Inc.

Address 126 Bumble Bee Cv. Wimberley, Tx | Tenant/Oper.

Date Drilled 03 27 2002 | Depth 810 | Source of Depth D | Altitude 1076 | Source of Alt. Data Z

Aquifer Cow Creek 218CCRK | Aquifer ID 11 | Well Type D | User

Well Construction
Const Method: Air rotary | Casing Material | Completion Method: Open hole Ended | Screen Material: PVC P

Lift Data
Pump Mfr. | Type of Lift: Submersible S | Pump Depth Setting (ft) | ft.
Motor Mfg | Power: electric motor E | H.P.

Yield
Flow Rate | Pump Rate: 50-60 GPM (Meas / Rept / Est) | Date of Test: 3/27/2002

Performance Test
Length of test: 36 hr | Production Rate: 10 GPM (Meas / Rept / Est) | Date of Test: 4/8/15
Static Level: 298.5 ft. | Pumping Level: 333.0 ft. | Amount of Drawdown: 34.5 ft. | Specific Capacity: .289 GPM/ft.

Water Use
Primary: Domestic D | Secondary | Tertiary

Water Quality
(Remarks: Glen Rose

Other Data Available
Water Level | Water Quality | Logs | Other Data

Water Levels

	Date	Meas.	Remarks	M.P. (+/-)
	04 08 2015	298.5		

Recorded by: Justin Camp | Date Record Collected or Information Updated: 04 08 2015 | Reporting Agency: 05

Remarks: 4 Packers at 50, 60, 690, 710 feet

Casing or Blank Pipe (C) / Well Screen or Slotted Zone (S) / Open Hole (O)
Cemented from 0 to 50

	Diam. (in)	Interval of C,S, or O From	To
1	08	+2	050
2	06	50	810
3	05	+2	810
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			
15			
16			
17			
18			

Aquifer

57-64-605

Well Number

E:/Tech/Forms/TWDB Well Schedule.xls

TWDB Water Quality Field Data Sheet

SWN: 5764-605 Site Name: Ochoa

County: Hays Address or Location: 126 Bumble Bee In.

County Code:

Aquifer Code:

Aquifer Id:

Project: TWDB

Newly Inventoried Well: yes

ID Number: 1007

Date: 4/8/15

Sampler(s): JC AA BH BSEACD

Standard TWDB suite			Isotopes						Other
1	2	3	4	5	6	7			10
1 L unfiltered									
500 ml filtered Cation HNO3 by lab	500ml filtered Anion Total Alk. Ice	250 ml filtered Nitrate Ice + H2SO4	1 L unfiltered C14/C13 corr *NaOH by lab	250 ml unfiltered O-18 Deuterium None	250 ml unfiltered Sr-87/Sr-86 None	1 L unfiltered Tritium 2nd Enrichment None			

All acidified samples pH <2.0. (*) If natural pH is <7, then add NaOH until pH is between 7 and 8. If natural pH is ≥7, no NaOH required.

Calibration Verification Readings		Pre Sample	Post Sample
PH	4 =		
	7 =		
	10 =		
Cond	0 (air)		
	500 =		
	1,000 =		

Time In: 11:20 Time Out:

Water Level: 298.5 326.8 (11:30) M.P. = 1.7 ft W.L. remark:

Pumping time: 11:33 331.0 (11:39)

331.6 (11:47)

Well Use: Dom 332.2 (11:46)

Lift: Sub. 333.0 (11:52)

Power: elec.

Sampling Point: Spigot / right of Pressure meter

FIELD G.P.S. readings

Latitude: 30° 02 57 N

Longitude: 98° 01 36 W

Casing Type: PVC Casing Size: 4" 5"

Sample Time: 11:52 Filtered: Yes / (No)

Filter pressure: hand pump / line / spring (NA)

Field Alkalinity Titration:		
	Start pH	End pH
50	mL Sample Size	
	mL Acid Total (to pH 4.5)	
mL acid added x 20 = Alkalinity		

Total Alkalinity (39086): _____ mg/L

Items Below Calculated Later From Results:

Dissolved Solids (mg/L):

Hardness (as CaCO3):

Balanced:

Water Quality Stabilization Parameters Table (At least 3 readings @ 5 min. intervals)

Time	11:34	11:39	11:44	11:49	11:54	11:59			
Stand. pH	7.41	7.20	7.17	7.17	7.18	7.18			
Celsius Temp.	22.52	26.25	26.74	26.77	26.74	26.82			
mg/L D.O.	2.93	1.67	1.16	1.02	0.94	.87			
mS/cm Conductivity	1.60	1.61	1.60	1.53	1.46	1.41			

Notes: 300' well

10 gpm

Field Data entered into TWDB GWDB: yes / no

Comments: sulfur odor

TDS: 1.04 .902

1.04

1.02

0.978

BoB Ochoa (well owner)

OCHOA WELL

OCHOA WELL

Environmental Laboratory Services
The Solution Lab

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone: (512)356-6022
Fax: (512)356-6021

ANALYTICAL RESULTS

Workorder: Q1513192

Lab ID: **Q1513192002**
Sample ID: **1007 OCHOA**
Project ID: 57·64·605

Date Received: 4/8/2015 14:31 Matrix: Aqueous
Date Collected: 4/8/2015 12:00 Sample Type: SAMPLE

Parameters	Results	Units	LOD	PQL	MCL	DF	Prepared	By	Analyzed	By	Qual
INORGANICS											
Analysis Desc: E200.7 Metals, Trace Elements	Preparation Method: E200.7 Prep Analytical Method: E200.7 Metals, Trace Elements										
Boron Dissolved	72.0	ug/L	20.0	50.0		1	04/14/15 16:11	MM	04/15/15 15:55	MV	
Calcium Dissolved	158	mg/L	0.0700	0.200		1	04/14/15 16:11	MM	04/15/15 15:55	MV	
Strontium Dissolved	9650	ug/L	40.0	100		10	04/14/15 16:11	MM	04/15/15 16:16	MV	
Iron Dissolved	<50.0	ug/L	20.0	50.0		1	04/14/15 16:11	MM	04/15/15 15:55	MV	
Magnesium Dissolved	94.0	mg/L	0.0700	0.200		1	04/14/15 16:11	MM	04/15/15 15:55	MV	
Potassium Dissolved	7.78	mg/L	0.0700	0.200		1	04/14/15 16:11	MM	04/15/15 15:55	MV	
Sodium Dissolved	11.1	mg/L	0.200	0.500		1	04/14/15 16:11	MM	04/15/15 15:55	MV	
Analysis Desc: E200.8, ICP-MS	Preparation Method: E200.8, ICP-MS Prep Analytical Method: E200.8, ICP-MS										
Aluminum Dissolved	<4.00	ug/L	1.50	4.00		1	04/14/15 16:16	MM	04/16/15 11:16	SLW	
Antimony Dissolved	<1.00	ug/L	0.400	1.00		1	04/14/15 16:16	MM	04/16/15 11:16	SLW	
Arsenic Dissolved	<2.00	ug/L	0.700	2.00		1	04/14/15 16:16	MM	04/16/15 11:16	SLW	
Barium Dissolved	17.8	ug/L	0.400	1.00		1	04/14/15 16:16	MM	04/16/15 11:16	SLW	
Beryllium Dissolved	<1.00	ug/L	0.400	1.00		1	04/14/15 16:16	MM	04/16/15 11:16	SLW	
Cadmium Dissolved	<1.00	ug/L	0.400	1.00		1	04/14/15 16:16	MM	04/16/15 11:16	SLW	
Chromium Dissolved	<1.00	ug/L	0.400	1.00		1	04/14/15 16:16	MM	04/16/15 11:16	SLW	
Cobalt Dissolved	<1.00	ug/L	0.400	1.00		1	04/14/15 16:16	MM	04/16/15 11:16	SLW	
Copper Dissolved	<1.00	ug/L	0.400	1.00		1	04/14/15 16:16	MM	04/16/15 11:16	SLW	
Lithium Dissolved	24.2	ug/L	0.700	2.00		1	04/14/15 16:16	MM	04/16/15 11:16	SLW	N
Lead Dissolved	<1.00	ug/L	0.400	1.00		1	04/14/15 16:16	MM	04/16/15 11:16	SLW	
Manganese Dissolved	<1.00	ug/L	0.400	1.00		1	04/14/15 16:16	MM	04/16/15 11:16	SLW	
Molybdenum Dissolved	1.42	ug/L	0.400	1.00		1	04/14/15 16:16	MM	04/16/15 11:16	SLW	
Selenium Dissolved	<4.00	ug/L	1.50	4.00		1	04/14/15 16:16	MM	04/16/15 11:16	SLW	
Silver Dissolved	<1.00	ug/L	0.400	1.00		1	04/14/15 16:16	MM	04/16/15 11:16	SLW	
Thallium Dissolved	<1.00	ug/L	0.400	1.00		1	04/14/15 16:16	MM	04/16/15 11:16	SLW	
Uranium Dissolved	<1.00	ug/L	0.400	1.00		1	04/14/15 16:16	MM	04/16/15 11:16	SLW	N
Vanadium Dissolved	<1.00	ug/L	0.400	1.00		1	04/14/15 16:16	MM	04/16/15 11:16	SLW	
Zinc Dissolved	<4.00	ug/L	1.50	4.00		1	04/14/15 16:16	MM	04/16/15 11:16	SLW	

57·64·605

OCHOA WELL

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The Solution Lab

LCRA Environmental Laboratory Services
3505 Montopolis Drive
Austin, TX 78744
Phone: (512)356-6022
Fax: (512)356-6021

ANALYTICAL RESULTS

Workorder: Q1513192

Lab ID: **Q1513192002**
Sample ID: **1007 OCHOA**
Project ID: 57.64.605

Date Received: 4/8/2015 14:31 Matrix: Aqueous
Date Collected: 4/8/2015 12:00 Sample Type: SAMPLE

Parameters	Results	Units	LOD	PQL	MCL	DF	Prepared	By	Analyzed	By	Qual
Analysis Desc: E300.0, Anions	Preparation Method: E300.0, Anions Analytical Method: E300.0, Anions										
Chloride Dissolved	11.0	mg/L	2.00	5.00		5	04/14/15 20:06	ML	04/14/15 20:06	ML	
Bromide Dissolved	<0.100	mg/L	0.0400	0.100		5	04/14/15 20:06	ML	04/14/15 20:06	ML	
Fluoride Dissolved	2.50	mg/L	0.0200	0.0500		5	04/14/15 20:06	ML	04/14/15 20:06	ML	
Sulfate Dissolved	596	mg/L	4.00	10.0		10	04/17/15 14:33	ML	04/17/15 14:33	ML	
TOTAL PHOSPHATE AS P											
Analysis Desc: E365.4 Phosphorus, Total	Preparation Method: E365.4 / E351.2 Water Prep Analytical Method: E365.4 Phosphorus, Total										
Phosphorus, Dissolved (As P)	<0.0200	mg/L	0.00800	0.0200		1	04/14/15 10:28	MM	04/16/15	CM	
ALKALINITY											
Analysis Desc: SM2320B, Alkalinity	Preparation Method: SM2320B, Alkalinity Analytical Method: SM2320B, Alkalinity										
Phenolphthalein Alkalinity	<20.0	mg/L	20.0	20.0		1	04/15/15	HP	04/15/15	HP	N
Hydroxide Alkalinity	<20.0	mg/L	20.0	20.0		1	04/15/15	HP	04/15/15	HP	N
Bicarbonate Alkalinity	269	mg/L	20.0	20.0		1	04/15/15	HP	04/15/15	HP	N
Carbonate Alkalinity	<20.0	mg/L	20.0	20.0		1	04/15/15	HP	04/15/15	HP	N
Total Alkalinity	269	mg/L	20.0	20.0		1	04/15/15	HP	04/15/15	HP	
NITRATE AND NITRITE											
Analysis Desc: SM4500-NO3-H, Nitrate/Nitrite	Preparation Method: SM4500-NO3-H, Nitrate/Nitrite Analytical Method: SM4500-NO3-H, Nitrate/Nitrite										
Nitrate/Nitrite	<0.0200	mg/L	0.00800	0.0200		1	04/20/15	ML	04/20/15	ML	
SILICA											
Analysis Desc: SM4500-SiO2-C, Silica	Preparation Method: SM4500-SiO2-C, Silica Analytical Method: SM4500-SiO2-C, Silica										
Silica, Dissolved	13.5	mg/L	0.200	0.500		1	04/17/15	ML	04/17/15	ML	
HEAVY METALS											
Analysis Desc: E245.1 Mercury Water	Preparation Method: E245.1 Mercury Water Analytical Method: E245.1 Mercury Water										
Mercury Dissolved	<0.200	ug/L	0.0700	0.200		1	04/15/15	FM	04/16/15 10:53	FM	

57.64.605

OCHOA WELL

Environmental Laboratory Services
The Solution Lab

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3505 Montopolis Drive
Austin, TX 78744
Phone: (512)356-6022
Fax: (512)356-6021

ANALYTICAL RESULTS

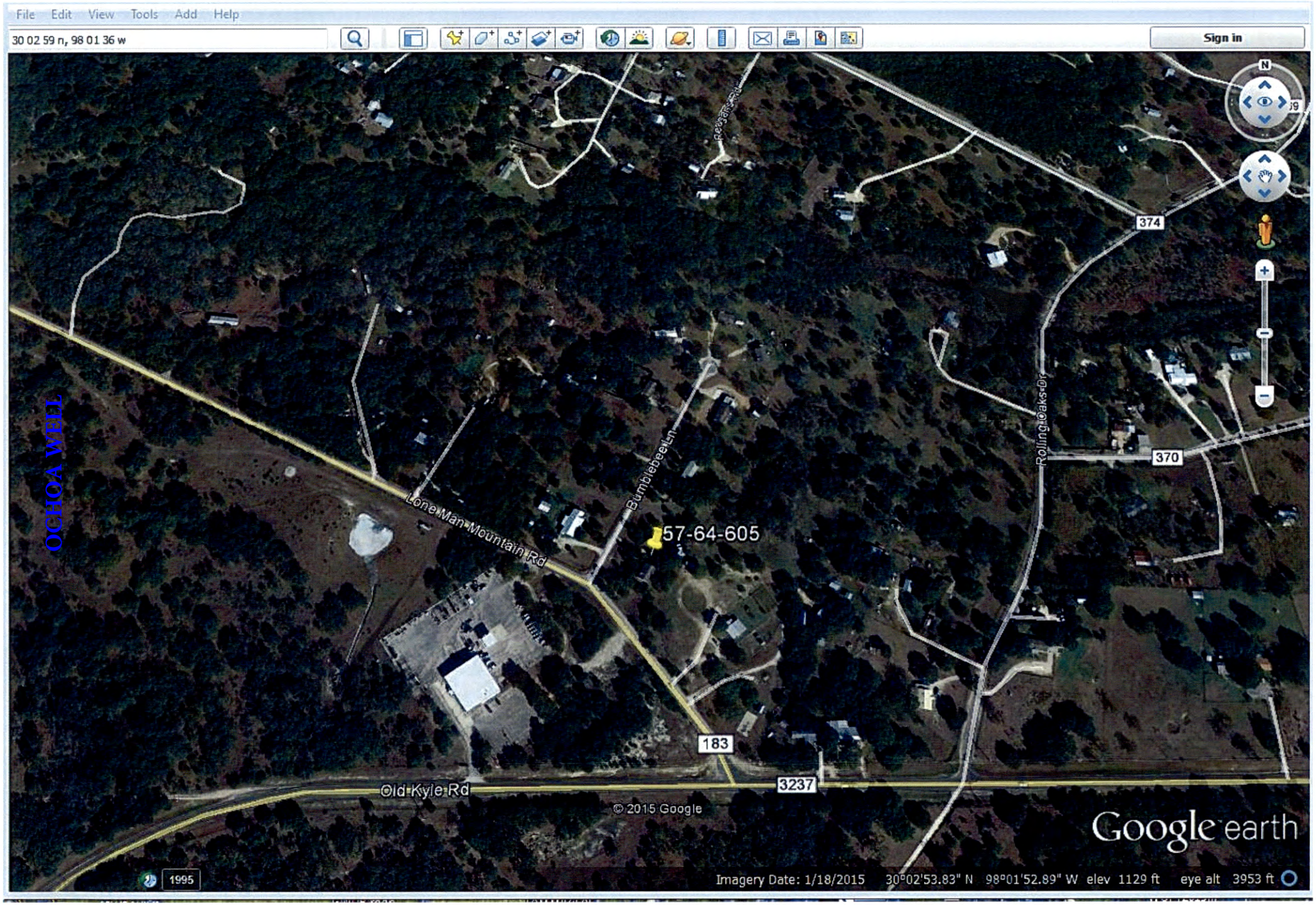
Workorder: Q1513192

Lab ID: **Q1513192002**
Sample ID: **1007 OCHOA**
Project ID: 57.64.605

Date Received: 4/8/2015 14:31 Matrix: Aqueous
Date Collected: 4/8/2015 12:00 Sample Type: SAMPLE

Parameters	Results	Units	LOD	PQL	MCL	DF	Prepared	By	Analyzed	By	Qual
INORGANICS											
Analysis Desc: SM1030B Cation/Anion Balance	Preparation Method: SM1030B Cation/Anion Balance Analytical Method: SM1030B Cation/Anion Balance										
Cation/Anion Balance	4.910	%				1	04/21/15 07:26	CW	04/21/15 07:26	CW	

57.64.605


File Edit View Tools Add Help
30 02 59 n, 98 01 36 w
Sign in
OCHOA WELL
Lone Man Mountain Rd
Bumblebee Ln
Rolling Oaks Dr
57-64-605
374
370
183
3237
Old Kyle Rd
© 2015 Google
Google earth
1995
Imagery Date: 1/18/2015 30°02'53.83" N 98°01'52.89" W elev 1129 ft eye alt 3953 ft

OCHOA WELL

ISOTECH®
ISOTECH LABORATORIES INC

ANALYSIS REPORT

Lab #:	503972	Job #:	28735	IS-64056	Co. Job#:
Sample Name:	Q1513194002				Co. Lab#:
Company:	LCRA Environmental Lab Services				
API/Well:					
Container:	250ml Plastic Bottle				
Field/Site Name:	45127860 - HBN 28785				
Location:					
Formation/Depth:					
Sampling Point:					
Date Sampled:	4/08/2015 12:00	Date Received:	4/17/2015	Date Reported:	4/24/2015

δD of water	----------	-26.8 ‰ relative to VSMOW
$\delta^{18}O$ of water	----------	-4.41 ‰ relative to VSMOW
Tritium content of water	----------	na
$\delta^{13}C$ of DIC	----------	na
^{14}C content of DIC	----------	na
$\delta^{15}N$ of nitrate	----------	na
$\delta^{18}O$ of nitrate	----------	na
$\delta^{34}S$ of sulfate	----------	na
$\delta^{18}O$ of sulfate	----------	na

Remarks:

57·64·605

OCHOA WELL

Client: LCRA ENVIRONMENTAL LAB SERVICES
Recvd : 15/04/21
Job# : 3275
Final : 15/05/28

Purchase Order#: Q1513196
Contact: Dale Jurecka 512-356-6022
3505 Montopolis Dr.
Austin, TX 78744

Cust	LABEL INFO	JOB.SX	REFDATE	QUANT	ELYS	TU	eTU
LCRA	Q1513196001	3275.01	150408	1000	275	0.06	0.09
LCRA	Q1513196002	3275.02	150408	1000	275	0.27*	0.09
LCRA	Q1513196003	3275.03	150408	1000	275	1.47	0.09
LCRA	Q1513196004	3275.04	150408	1000	275	0.02	0.09

57.64.605

* Average of duplicate runs

WOOD 01 WELL

STATE OF TEXAS WELL REPORT for Tracking #233129

Owner:	**DONALD WOOD/MIKE ENDRES JOB**	Owner Well #:	**No Data**
Address:	**500 DEER LAKE RD. WIMBERLEY, TX 78676**	Grid #:	**57-64-9**
Well Location:	**BRYARWOOD RANCH WIMBERLEY, TX 78676**	Latitude:	**30° 02' 24" N**
		Longitude:	**098° 02' 00" W**
Well County:	**Hays**	Elevation:	**No Data**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **10/8/2010** Drilling End Date: **10/8/2010**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
9	**0**	**50**
6.5	**50**	**790**

Drilling Method: **Air Rotary**

Borehole Completion: **CASED**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**50**	**5 VOLCLAY**
0	**50**	**7 CEMENT**

Seal Method: **Slurry**

Sealed By: **Driller**

Distance to Property Line (ft.): **N/A**

Distance to Septic Field or other concentrated contamination (ft.): **N/A**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **WELL DRILLED FIRST**

Surface Completion: **Surface Sleeve Installed**

Water Level: **No Data**

Packers: **4 BURLAP,PVC,RUBBER 50',550',570',670'**

Type of Pump: **Submersible**

Well Tests: **Jetted** **Yield: 100+ GPM**

WOOD 01 WELL

Water Quality:

Strata Depth (ft.)	Water Type
80	MIDDLE TRINITY

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **CENTEX PUMP & SUPPLY, INC.**

2520 HWY. 290 WEST
DRIPPING SPRINGS, TX 78620

Driller Name: **AARON GLASS** License Number: **4227**

Comments: **No Data**

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	1	TOP SOIL
1	30	CALICHE
30	32	BLUE LIMESTONE
32	210	GRAY LIMESTONE
210	350	GRAY/TAN LIMESTONE
350	490	TAN/GRAY LIMESTONE
490	500	WHITE/GRAY LIMESTONE
500	540	GRAY LIMESTONE
540	570	GRAY W/TAN LIMESTONE
570	700	TAN LIMESTONE
700	760	GRAY/TAN LIMESTONE
760	790	BROWN LIMESTONE

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.) New/Used Type Setting From/To (ft.)
5" OD N SDR17 PVC +3 TO 790
5" OD N SDR17 PVC SLOT 710 TO 790 .032

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

BOWMAN WELL

STATE OF TEXAS WELL REPORT for Tracking #353577

Owner:	**Mr. Bowman**	Owner Well #:	**No Data**
Address:	**7505 FM 3237 Driftwood, TX 78619**	Grid #:	**57-64-6**
Well Location:	**7505 FM 3237 Driftwood, TX 78619**	Latitude:	**30° 02' 53" N**
		Longitude:	**098° 00' 45" W**
Well County:	**Hays**	Elevation:	**No Data**

Type of Work: **New Well** Proposed Use: **Domestic**

Drilling Start Date: **12/20/2013** Drilling End Date: **12/20/2013**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
9	**0**	**50**
6.25	**50**	**850**

Drilling Method: **Air Rotary**

Borehole Completion: **cased; Straight Wall**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
1	**50**	**5cmt 3gel**

Seal Method: **hand poured**

Sealed By: **ADC**

Distance to Property Line (ft.): **50+**

Distance to Septic Field or other concentrated contamination (ft.): **n/a**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **well drilled first / owner**

Surface Completion: **Surface Sleeve Installed**

Water Level: **473 ft.** below land surface on **2013-12-20** Measurement Method: **Unknown**

Packers: **burlap,plastic,rubber @ 810,790,550,50**

Type of Pump: **Submersible** Pump Depth (ft.): **0**

Well Tests: **Jetted** **Yield: 50+ GPM**

Plug Information:

Description (number of sacks & material)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
n/a		

BOWMAN WELL

Water Quality:

Strata Depth (ft.)	Water Type
830-850	**glen rose cow creek**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Associated Drilling Inc.**

PO Box 673
Dripping Springs, TX 78620

Driller Name: **James Benoit** License Number: **4064**

Comments: **Joelander Well Drilling**
Exempt permit

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**55**	**tan and white limestone**
55	**60**	**red clay**
60	**90**	**tan limestone**
90	**110**	**tan lime**
110	**675**	**gray lime**
675	**765**	**tan limestone**
765	**830**	**gray lime**
830	**850**	**brown and tan limestone**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
5	**od**	**new**	**sdr17 pvc -3 to 810**
5	**od**	**new**	**sdr17 pvc (.032) screen 810 to 850**

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

TEX. OCC. CODE Title 12, Chapter 1901.251, authorizes the owner (owner or the person for whom the well was drilled) to keep information in Well Reports confidential. The Department shall hold the contents of the well log confidential and not a matter of public record if it receives, by certified mail, a written request to do so from the owner.

Please include the report's Tracking Number on your written request.

Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

LOWE WELL

STATE OF TEXAS WELL REPORT for Tracking #394760

Owner:	**Loyal Lowe**	Owner Well #:	**No Data**
Address:	**132 N. Ocean Dr. Port Lavaca, TX 77979**	Grid #:	**57-64-6**
Well Location:	**891 Jennifer Lane Driftwood, TX 78619**	Latitude:	**30° 03' 17" N**
		Longitude:	**098° 01' 41" W**
Well County:	**Hays**	Elevation:	**1114 ft. above sea level**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **4/14/2015** Drilling End Date: **5/6/2015**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**7.875**	**0**	**860**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
90	**285**	**12 Bentonite**
285	**495**	**47 Cement**
495	**510**	**1 bentonite**

Seal Method: **Pos. Displacement**

Sealed By: **Driller**

Distance to Property Line (ft.): **50+**

Distance to Septic Field or other concentrated contamination (ft.): **100+**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **Measured**

Surface Completion: **Surface Sleeve Installed**

Water Level: **275 ft.** below land surface on **2015-04-16** Measurement Method: **Unknown**

Packers: **Shale/6Mil Poly 510**
Shale/6Mil Poly 515
Shale/6Mil Poly 520
Shale/6Mil Poly 720
Shale/6Mil Poly 730
Shale/6Mil Poly 740

Type of Pump: **Submersible** Pump Depth (ft.): **760**

Well Tests: **Jetted** **Yield: 50 GPM**

LOWE WELL

Water Quality:

Strata Depth (ft.)	Water Type
740/800	**Good**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Whisenant & Lyle Water Services**

PO Box 525
Dripping Springs, TX 78620

Driller Name: **Brice Bormann** License Number: **54855**

Apprentice Name: **Tyler Loman**

Comments: **additional Annular Seal data:**
90' to 0 21 bags cement

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**3**	**Topsoil**
3	**25**	**Tan limestone**
25	**28**	**Brown limestone**
28	**32**	**Caliche**
32	**82**	**Tan limestone**
82	**95**	**Shale**
95	**455**	**Brown tan limestone**
455	**587**	**Brown limestone**
587	**692**	**Dark brown limestone**
692	**790**	**Brown tan limestone**
790	**838**	**Dark brown limestone**
838	**860**	**Hamett clay**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.) New/Used Type Setting From/To (ft.)
4.5 New PVC SDR 17 Solid 0-760
4.5 New PVC SDR 17 Slotted 760-820 .032
4.5 New PVC SDR 17 Solid 820-840

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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(512) 334-5540

ESCONDIDA 01 WELL

STATE OF TEXAS WELL REPORT for Tracking #435981

Owner:	**Amy and Michael Gomez**	Owner Well #:	**1**
Address:	**PO Box 2531** **Wimberley, TX 78676**	Grid #:	**57-64-9**
Well Location:	**5000 FM 3237** **Wimberley, TX 78676**	Latitude:	**30° 01' 44.15" N**
		Longitude:	**098° 02' 26.84" W**
Well County:	**Hays**	Elevation:	**1069 ft. above sea level**
Type of Work:	**New Well**	Proposed Use:	**Domestic**

Drilling Start Date: **10/13/2016** Drilling End Date: **10/19/2016**

	Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Borehole:	**10**	**0**	**930**

Drilling Method: **Air Rotary**

Borehole Completion: **Open Hole**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**120**	**Cement & Sand Mix 10 Bags/Sacks**
120	**850**	**Cement 215 Bags/Sacks**
850	**870**	**Cement & Sand Mix 5 Bags/Sacks**

Seal Method: **Pressure**

Sealed By: **Driller**

Distance to Property Line (ft.): **50**

Distance to Septic Field or other concentrated contamination (ft.): **150**

Distance to Septic Tank (ft.): **50**

Method of Verification: **measured**

Surface Completion: **Surface Sleeve Installed** **Surface Completion by Driller**

Water Level: **315 ft.** below land surface on **2016-10-19**

Packers: **Rubber at 870 ft.**
screen at 870 ft.

Type of Pump: **No Data**

Well Tests: **No Test Data Specified**

ESCONDIDA 01 WELL

Water Quality:

Strata Depth (ft.)	Water Type
No Data	**No Data**

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Kutscher Drilling**

3810 Hunter Road
San Marcos, TX 78666

Driller Name: **Daniel Kutscher** License Number: **54746**

Comments: **No Data**

Report Amended on 7/5/2017 by Request #21909

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	**930**	**cement and casing**

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia (in.)	Type	Material	Sch./Gage	Top (ft.)	Bottom (ft.)
5	**Blank**	**Plastic (PVC)**	**SDR-17**	**-3**	**877**

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

STATE OF TEXAS WELL REPORT for Tracking #388355

Owner:	**Electro Purification, LLC**	Owner Well #:	**Odell TW#1**
Address:	**4605 Post Oak Place Dr Houston, TX 77027**	Grid #:	**57-64-6**
Well Location:	**5801 Old Kyle Rd Wimberley, TX 78676**	Latitude:	**30° 02' 33" N**
		Longitude:	**098° 01' 21" W**
Well County:	**Hays**	Elevation:	**1063 ft. above sea level**
Type of Work:	**New Well**	Proposed Use:	**Test Well**

Drilling Start Date: **1/12/2015** Drilling End Date: **1/20/2015**

Borehole:

Diameter (in.)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
14.75	**0**	**565**
9.875	**0**	**903**

Drilling Method: **Air Rotary**

Borehole Completion: **Straight Wall**

Annular Seal Data:

Top Depth (ft.)	*Bottom Depth (ft.)*	*Description (number of sacks & material)*
0	**10**	**2 benseal**
553	**565**	**7 Type H**

Seal Method: **Pos Displacement**

Sealed By: **Driller**

Distance to Property Line (ft.): **100+**

Distance to Septic Field or other concentrated contamination (ft.): **N/A**

Distance to Septic Tank (ft.): **No Data**

Method of Verification: **measured**

Surface Completion: **Alternative Procedure Used**

Water Level: **330 ft.** below land surface on **2015-01-13** Measurement Method: **Unknown**

Packers: **Shale packer 560'**
6Mil poly 565'

Type of Pump: **No Data**

Well Tests: **Jetted** **Yield: 75 GPM**

Plug Information:

Description (number of sacks & material)	*Top Depth (ft.)*	*Bottom Depth (ft.)*
Cement	**742**	**903**

ODELL NO. 1

Water Quality:

Strata Depth (ft.)	Water Type
800-860	Good TDS 300

Chemical Analysis Made: **No**

Did the driller knowingly penetrate any strata which contained injurious constituents?: **No**

Certification Data: The driller certified that the driller drilled this well (or the well was drilled under the driller's direct supervision) and that each and all of the statements herein are true and correct. The driller understood that failure to complete the required items will result in the report(s) being returned for completion and resubmittal.

Company Information: **Whisenant & Lyle Water Services**

PO Box 525
Dripping Springs, TX 78620

Driller Name: **Brice Bormann** License Number: **54855**

Comments: **Other driller**
Martin Lingle

Apprentices
Walker Dodson
Justin Nance

Report Amended on 3/16/2017 by Request #20977

Lithology:
DESCRIPTION & COLOR OF FORMATION MATERIAL

Top (ft.)	Bottom (ft.)	Description
0	10	white limestone
10	17	brown limestone
17	80	gray limestone
80	85	brown limestone
85	280	gray limestone
280	885	gray tan limestone
885	900	shale gray limestone
900	903	shale

Casing:
BLANK PIPE & WELL SCREEN DATA

Dia. (in.)	New/Used	Type	Setting From/To (ft.)
10" New PVC-SDR 17IB 0-565			

IMPORTANT NOTICE FOR PERSONS HAVING WELLS DRILLED CONCERNING CONFIDENTIALITY

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Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711
(512) 334-5540

GEO CAM

Water Well Logging & Video Recording Services

Geo Cam, Inc. 17118 Classen Rd. San Antonio, TX Office: 877-495-9121

Borehole: TELEPHONE COMANY TEST WELL

Logs: GAMMA, RESITIVITY, SPR. CALIPER

Project: TELEPHONE COMANY TEST WELL

Client: **WHISENANT & LYLE**

Location: N 30* 2' 55.55" W 98* 1' 45.43"

Date: 01-13-2014

County: HAYS

State: TX

BOREHOLE DATA

Drilling Contractor: WHISENANT & LYLE

Elevation: 1102' GPS.

Depth Ref: G.L.

Driller T.D. (ft) : 906

Logger T.D. (ft) : 906.2

Date Drilled: 01-13-2014

BIT RECORD				CASING RECORD		
RUN	BIT SIZE (in)	FROM (ft)	TO (ft)	SIZE/WGT/THK	FROM (ft)	TO (ft)
1	9 7/8	0	906	NA		
2						
3						

Drill Method: AIR ROTARY

Weight: NA

Fluid Level (ft) : 329

Hole Medium: NA

Mud Type: NA

Time Since Circ: NA

Viscosity: NA

Rm: at: Deg C

GENERAL DATA

Logged by: ERASMO DE LA FUENTE

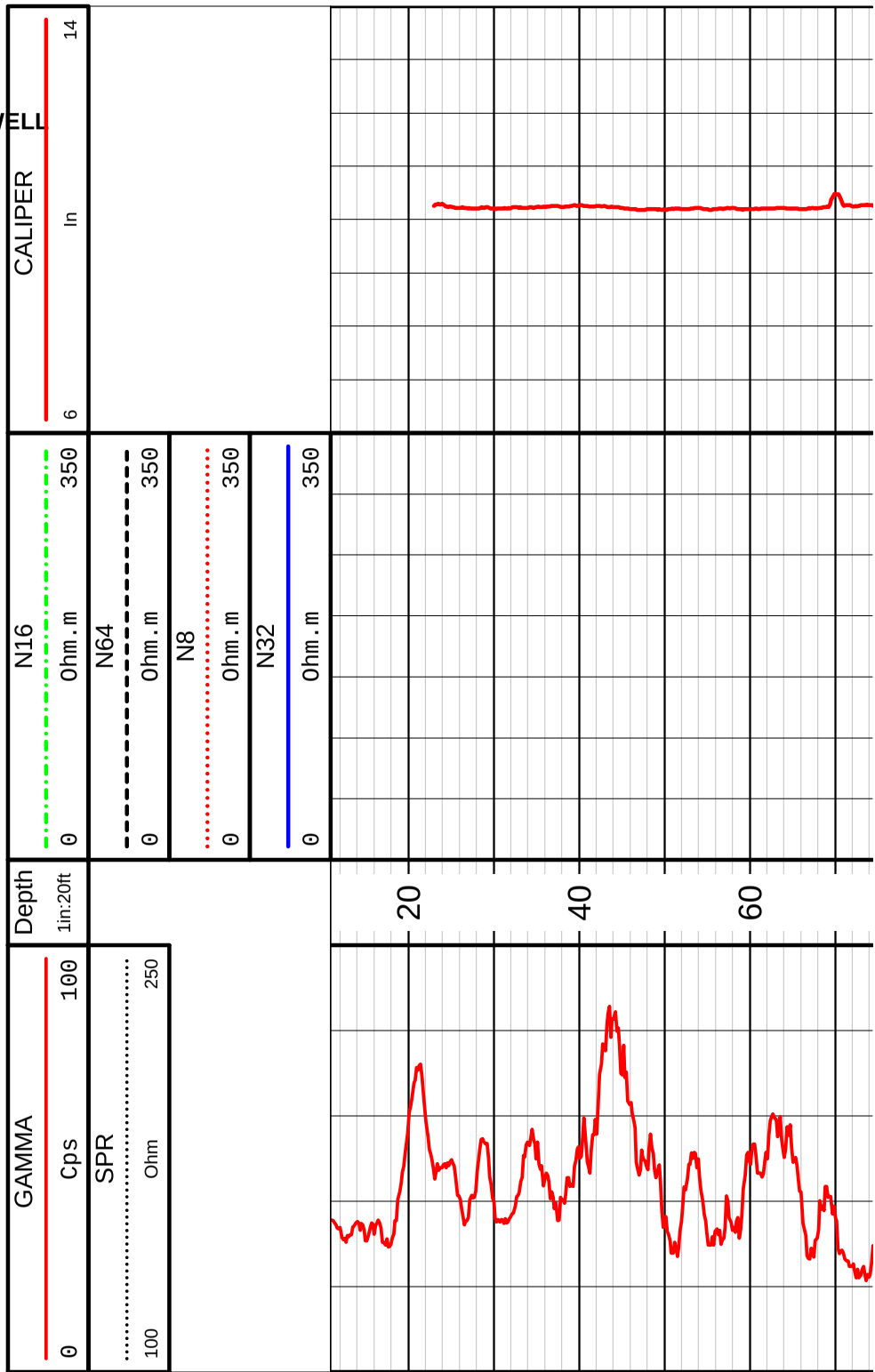
Unit/Truck: 10

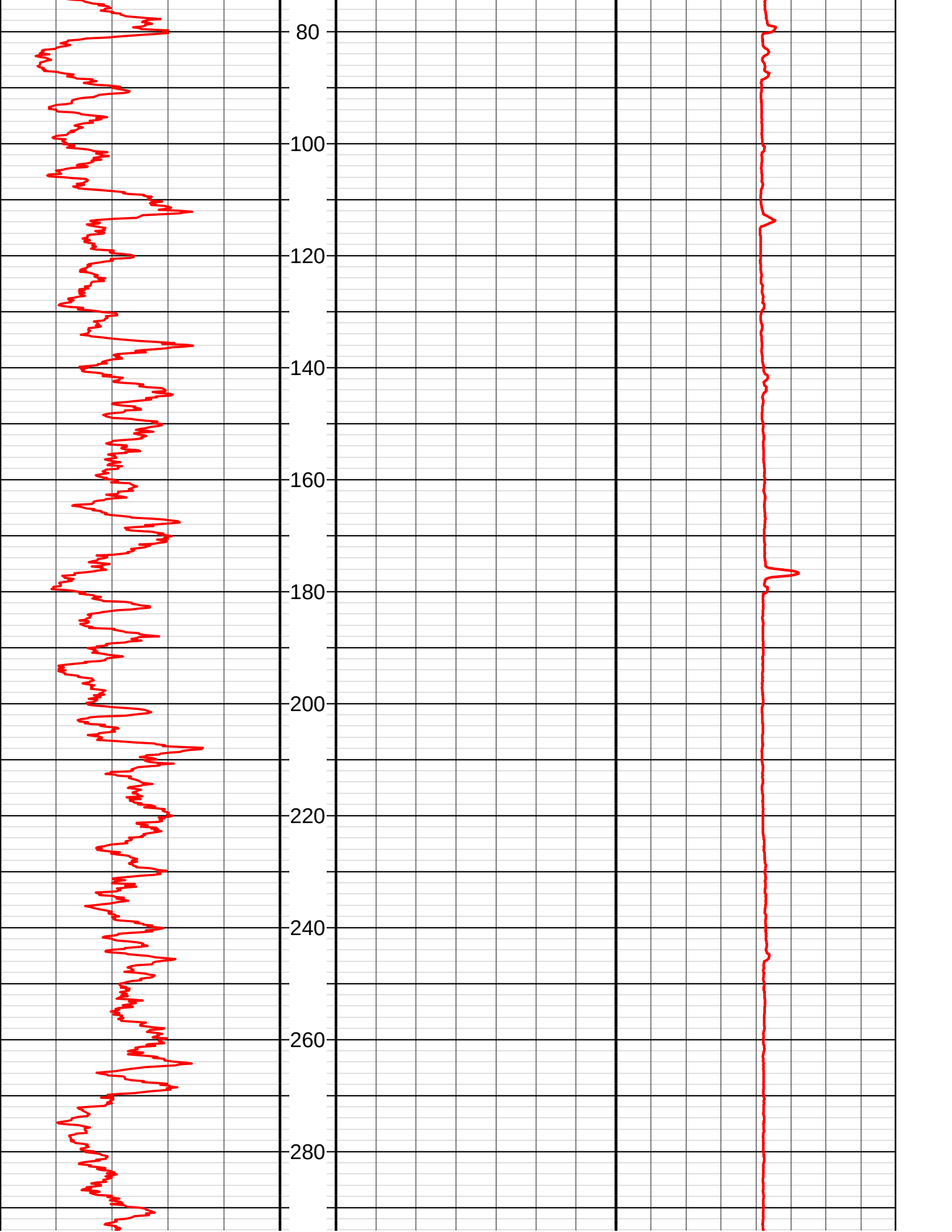
Witness: MARTIN - ANDREW

LOG TYPE	RUN NO	SPEED (ft/min)	FROM (ft)	TO (ft)	FT./ IN.
GAMMA	2	40	892.4	11	20
RESISTIVITY. SPR.	2	40	899	327.1	20
CALIPER	2	40	904.4	23	20

Comments:

Odell Test Well No. 1

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260
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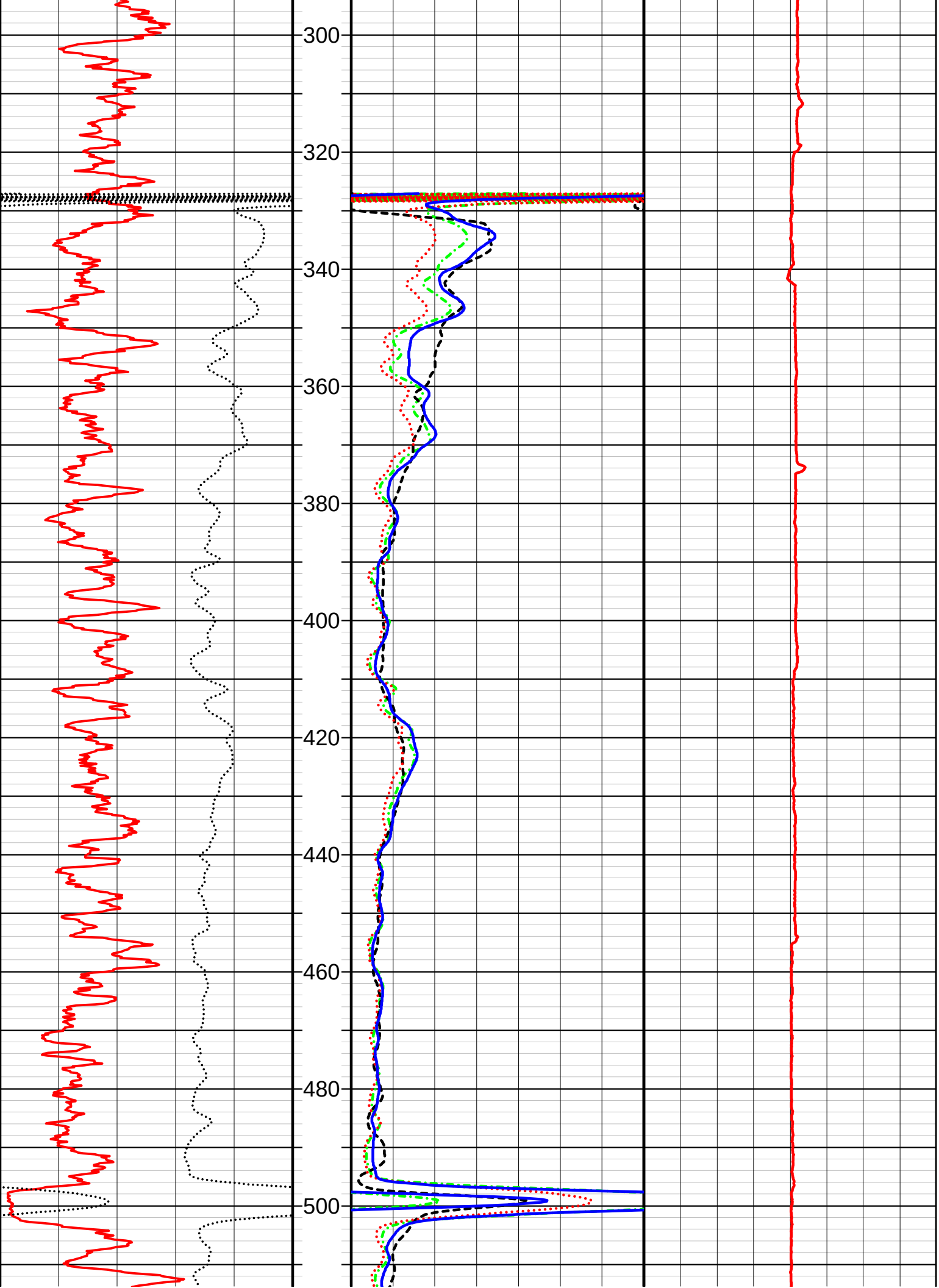
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420
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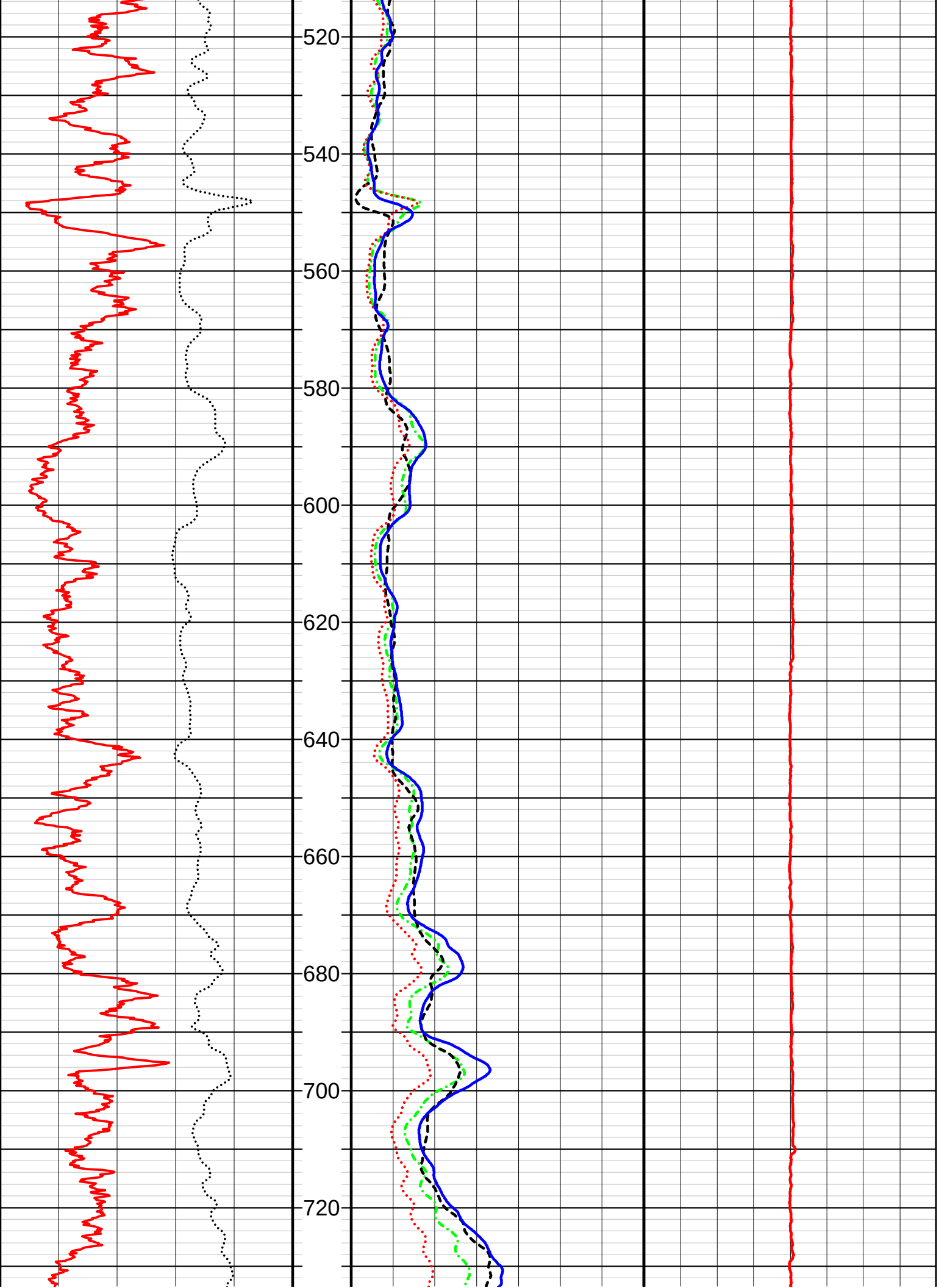
460
480
500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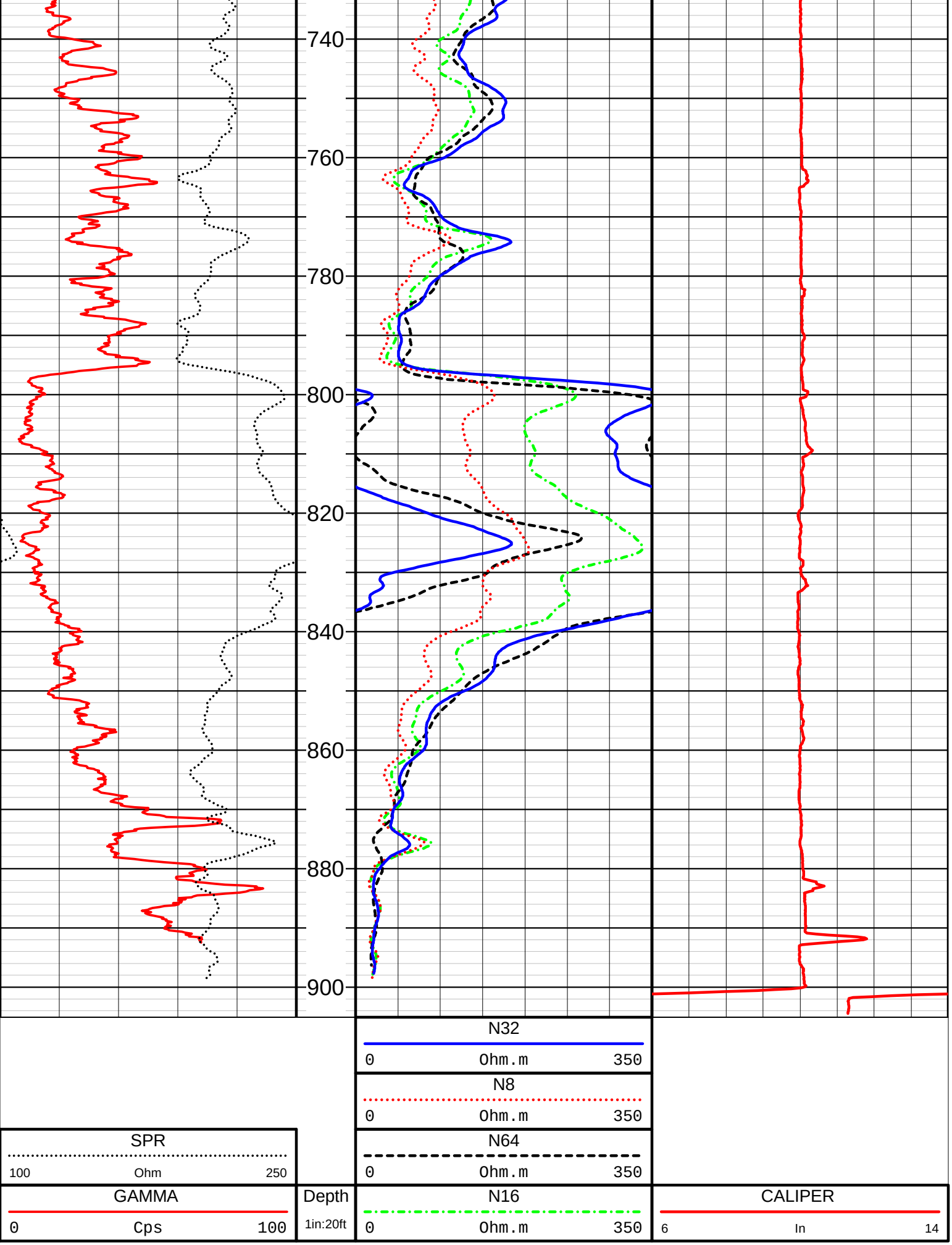
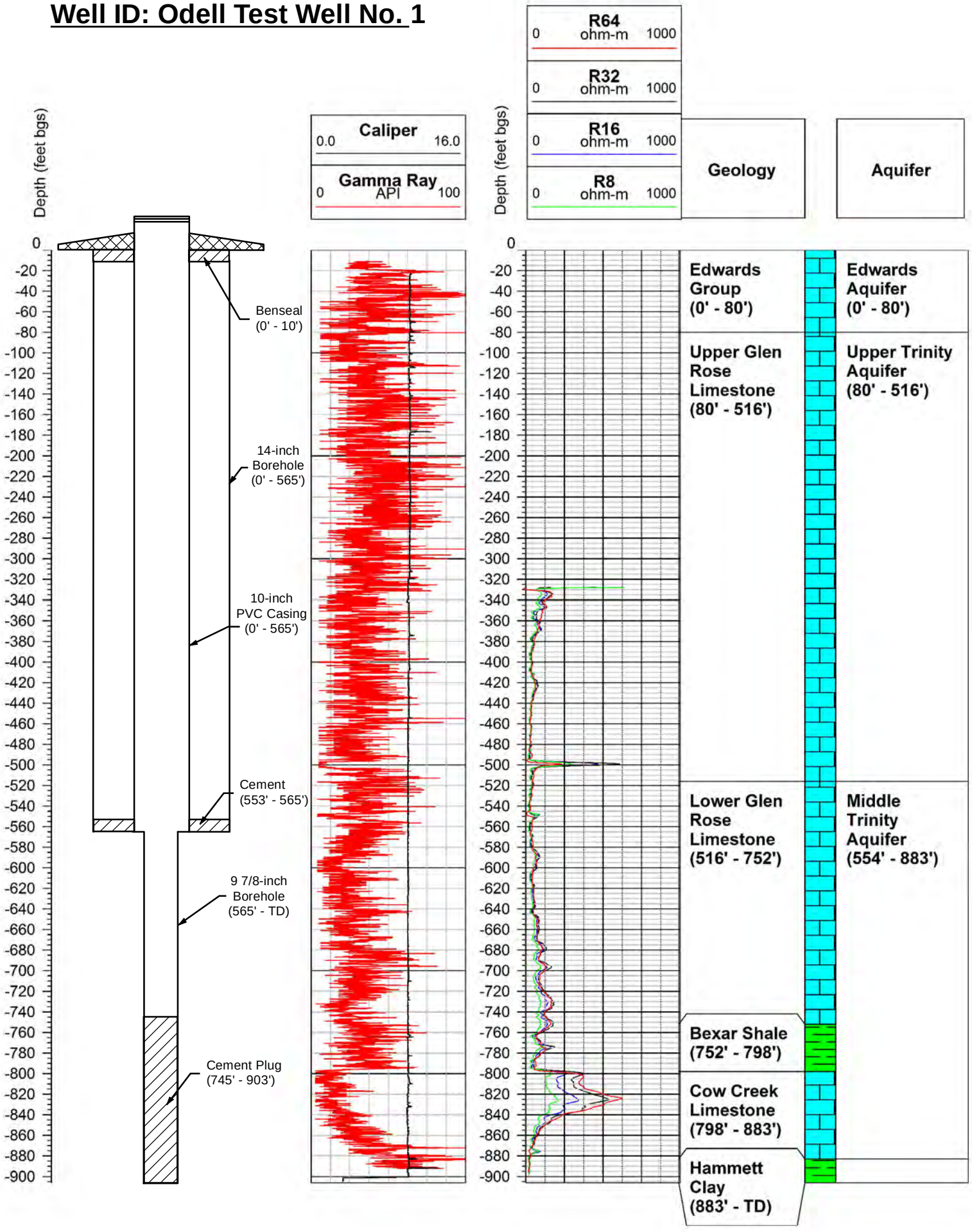
560
580
600
620
640
660
680
700
720


740
760
780
800
820
840
860
880
900
SPR
100 Ohm 250
GAMMA
0 Cps 100
Depth
1in:20ft
N32
0 Ohm.m 350
N8
0 Ohm.m 350
N64
0 Ohm.m 350
N16
0 Ohm.m 350
CALIPER
6 In 14

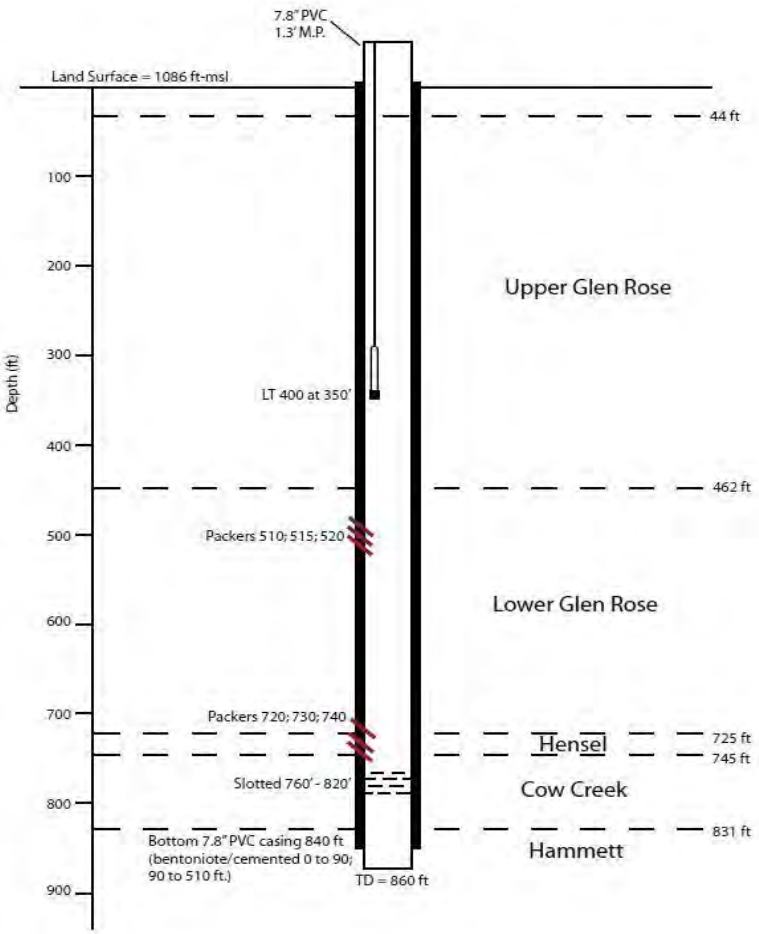
Appendix D: Monitor Well Profiles

Client: Electro Purification LLC	Location: Hays County, Texas	Drilled by: Whisenant & Lyle Water Services	Construction Date: 1/20/2015
Elevation: 1,102 ft. MSL	Total Depth: 903 ft.	Latitude: 30° 2' 55.55" N	Longitude: 98° 1' 45.43" W

Well ID: Odell Test Well No. 1

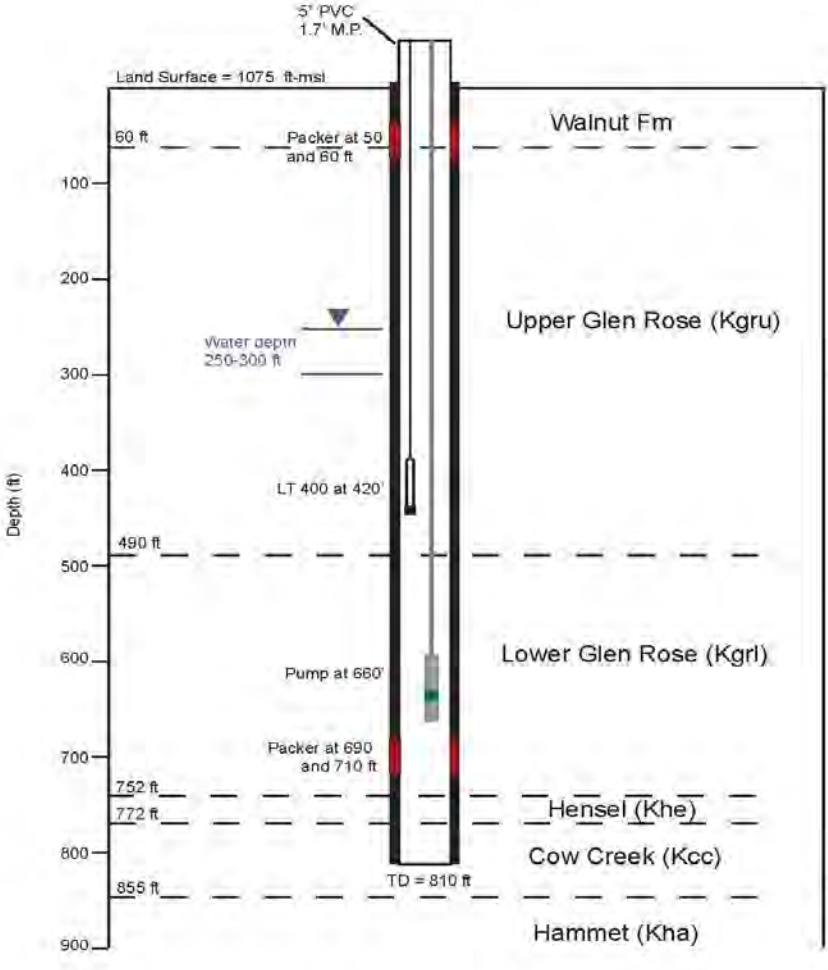


Lowe Monitor well



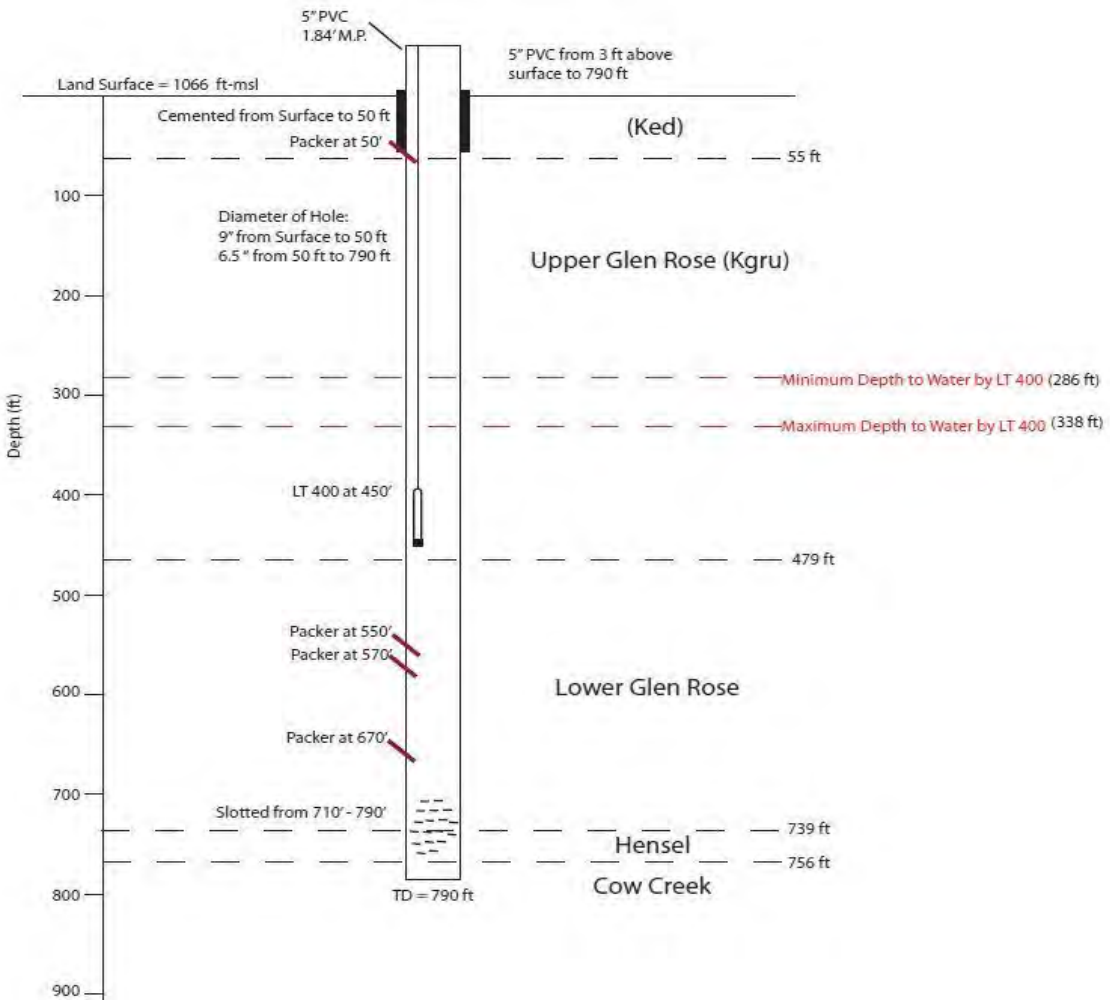
Pump Depth= 760'

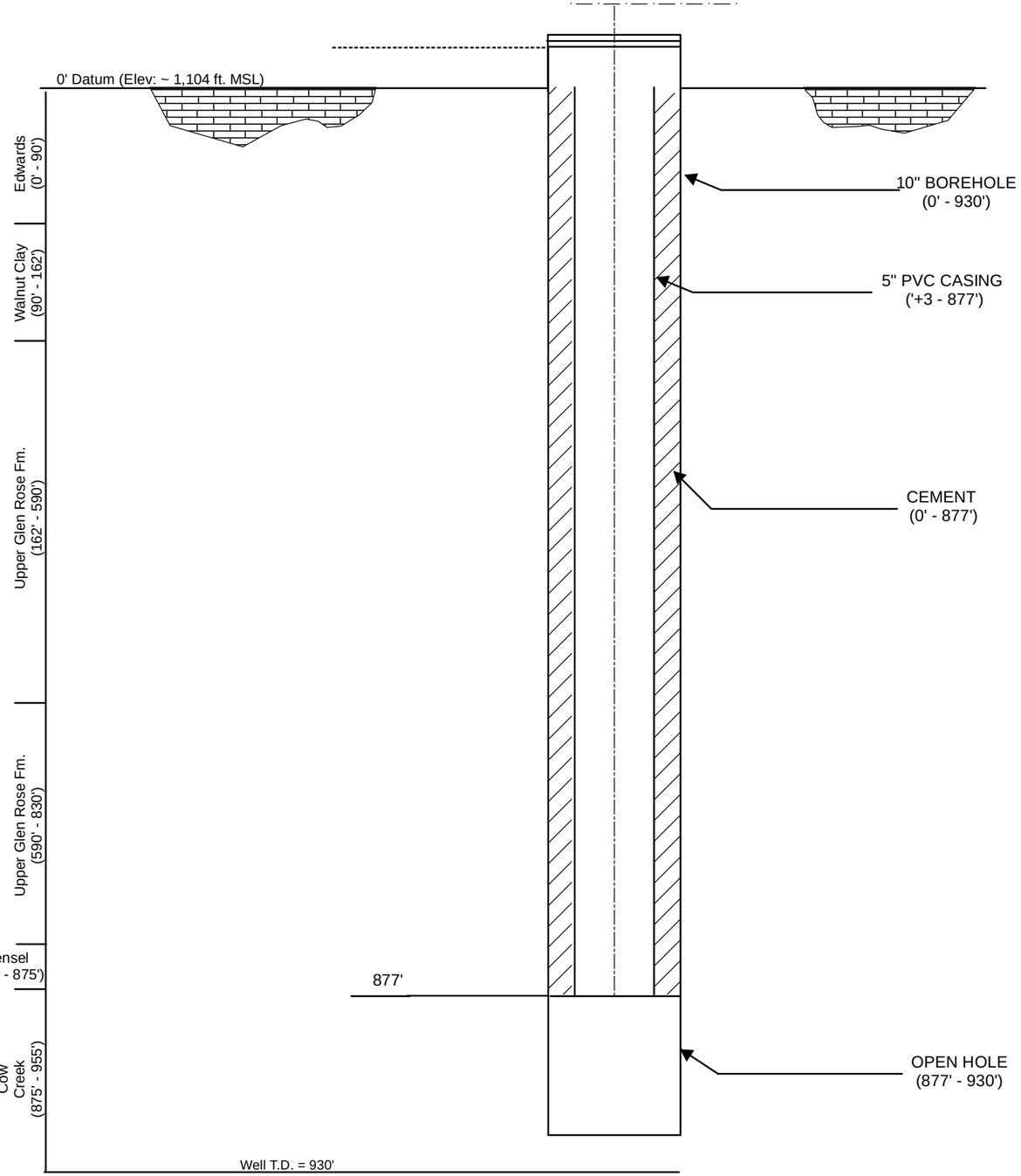
Ochoa Monitor well



Construction Notes:
5" PVC from +1.7 to 810 ft;
Cemented from surface to 50 ft.
Assume slotted at Kcc.

Wood 01 Monitor well





Notes:

1. Well profile based upon infromation provided by the District.
2. Fomrational picks estimated based upon information provided by the District.

Well Profile: Escondida 1 Well

Electro Purification, LLC

Hays County, Texas

SCALE: NONE

APPROVED BY: KK DATE: 11-10-17

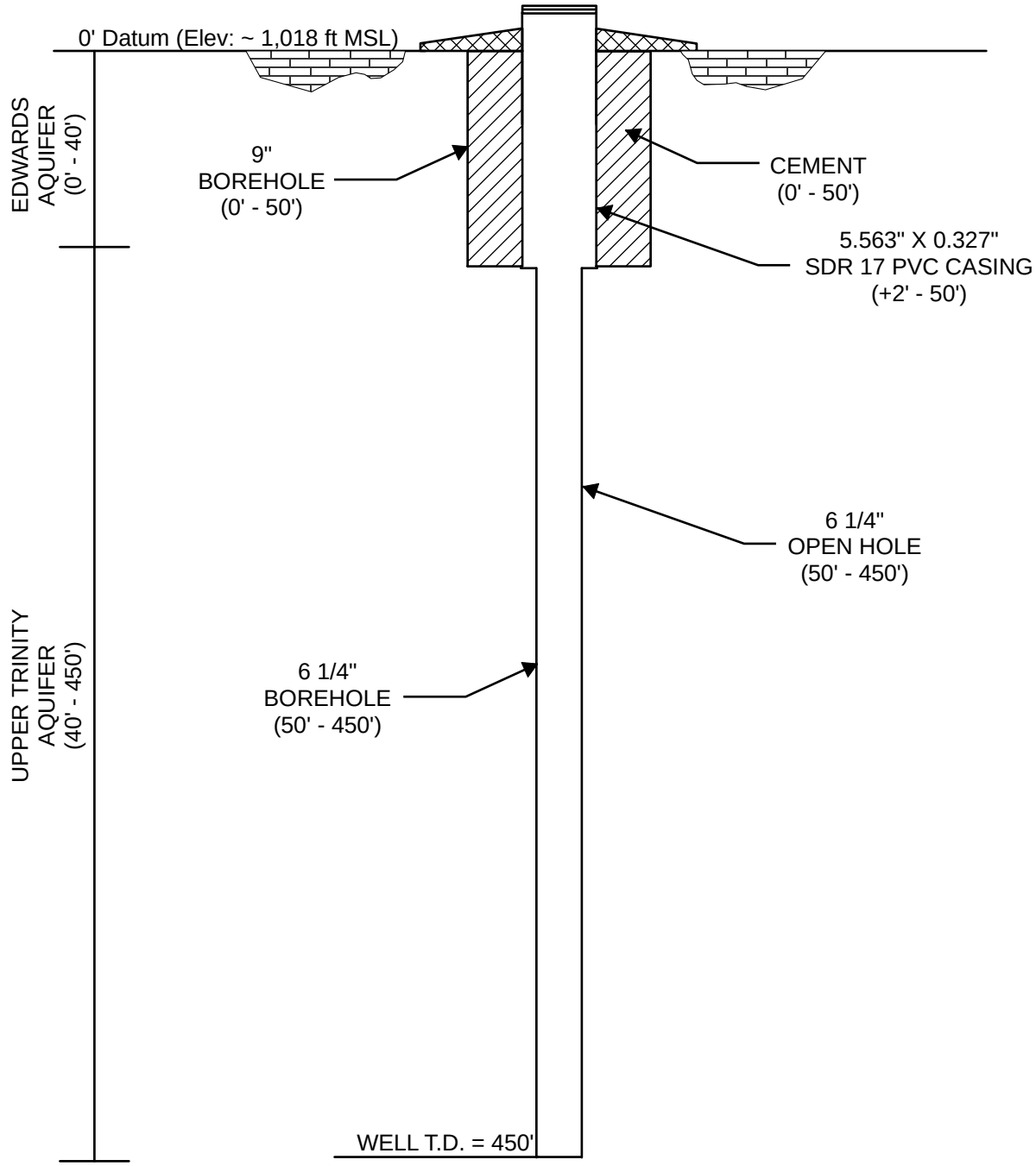
REVISED BY: DATE:

DRAWING NO: W-1

SHEET:

Wet Rock Groundwater Services, LLC
Groundwater Specialists
TBPG Firm No: 50038
317 Ranch Road 620 South, Suite 203
Austin, Texas 78734
Ph: 512.773.3226 www.wetrockgs.com

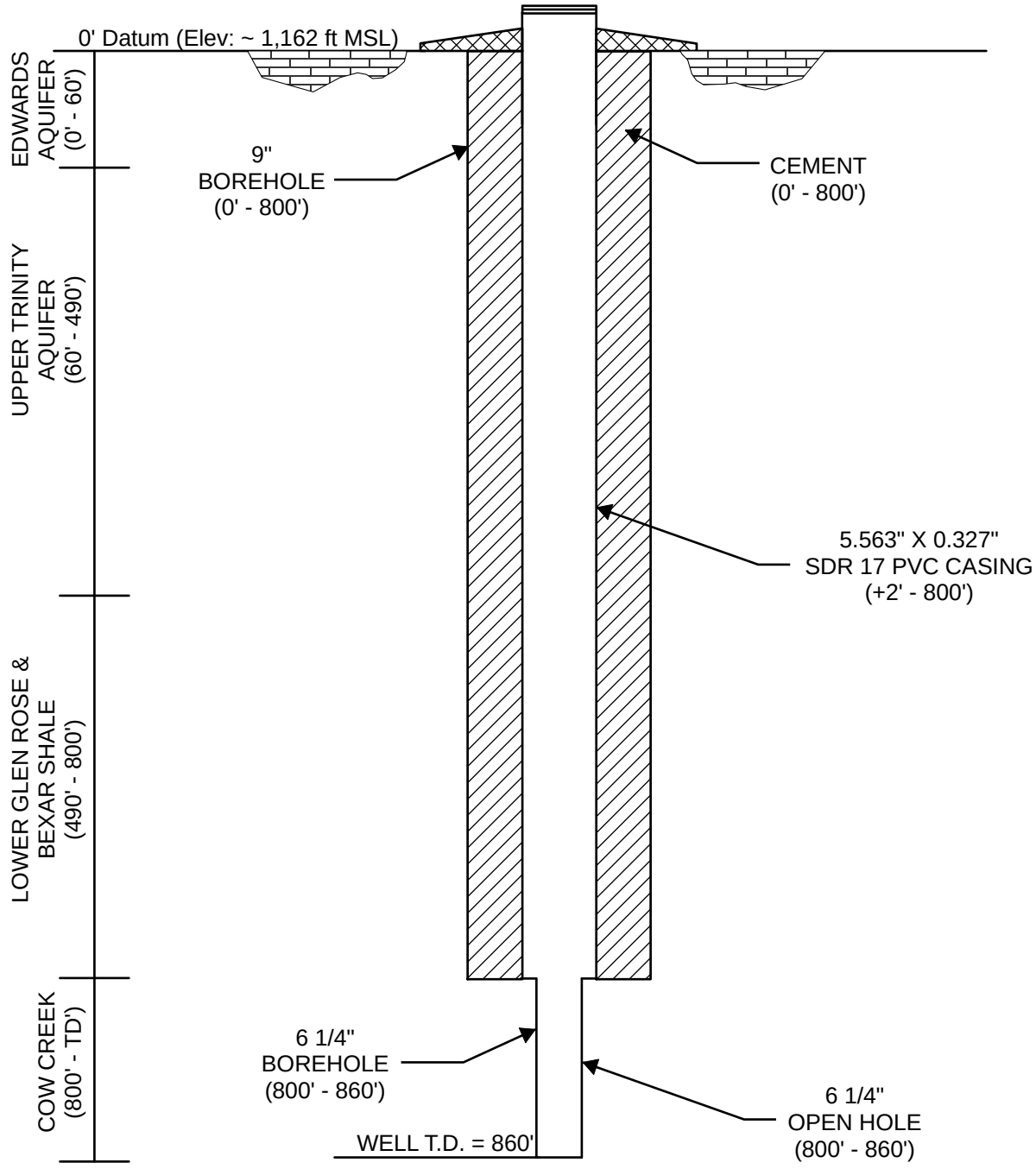
Well ID: EP UGR Monitor Well



Wet Rock Groundwater Services, L.L.C.
Groundwater Specialists
TBPG Firm No: 50038
317 Ranch Road 620 South, Ste. 203
Austin, Texas 78734 Ph: 512.773.3226
www.wetrockgs.com

Client: Electro Purification, LLC	Elevation: 1,018 ft. MSL
Location: Hays County, Texas	Total Depth: 450 ft.
Driller: Hydro Resources Mid-Continent	Lat: 30° 2' 43.93" N
Drill Date: TBD	Long: 98° 1' 12.55" W

Well ID: EP Western Monitor Well



Wet Rock Groundwater Services, L.L.C.
Groundwater Specialists
TBPG Firm No: 50038
317 Ranch Road 620 South, Ste. 203
Austin, Texas 78734 Ph: 512.773.3226
www.wetrockgs.com

Client: Electro Purification, LLC	Elevation: 1,162 ft. MSL
Location: Hays County, Texas	Total Depth: 860 ft.
Driller: Hydro Resources Mid-Continent	Lat: 30° 2' 56.93" N
Drill Date: TBD	Long: 98° 2' 11.00" W

Appendix E: EP's Proposed Mitigation Plan

APPENDIX E
EP's Mitigation Plan DRAFT
(Subject to BSEACD Approval)

Introduction

In response to the General Manager's preliminary finding that as applied for, EP's Permit when granted could have an unreasonable impact on existing neighboring wells over the long-term. Consistent with EP's understanding of the District's desire to manage total groundwater production on a long-term basis in a manner to avoid the occurrence of any such unreasonable impacts, EP has submitted a Compliance Monitoring Plan to avoid and/or address the potential for any such unreasonable impacts. EP's Compliance Monitoring Plan was developed in cooperation with the District to eliminate the potential for unreasonable impacts after considering all of the following:

1. Evaluation of the potential for unreasonable impacts using the best available science to anticipate such impacts;
2. A program of ongoing monitoring and data collection to measure the actual impacts of the pumping project on the aquifer(s) over time once EP commences production under its Permit;
3. Incorporation of specific response measures (temporary adjustments to groundwater production) to be triggered by prescribed aquifer conditions and implemented as a requirement to avoid unreasonable impacts;
4. Incorporation of specific provisions that incorporate an EP proposed mitigation agreement that serves as a contingency response plan in the event of an occurrence of any unanticipated or unavoidable unreasonable impact through reasonable measures.

EP's proposed Mitigation Plan it intended and designed to complement the District's dedication to preserving and protecting:

1. the long-term sustainability of the Edwards and Trinity aquifer systems for existing and future groundwater users;
2. the integrity of the Edwards and Trinity aquifer systems as a continuing source of water for existing wells and the local community;
3. a property owner's right to access groundwater resources beneath their land; and
4. well owners who may unexpectedly may be impacted by production from EP's well field despite EP's proactive avoidance measure to prevent unreasonable impacts pursuant to EP's Compliance Monitoring Plan.

Objectives of EP's Mitigation Plan

EP's Mitigation is intended to be an additional tool to address unanticipated unreasonable impacts to existing groundwater users attributable to groundwater production by EP that could not be addressed and avoided through EP's proactive implementation and exhaustion of its Compliance Monitoring Program because of circumstances either unknown to EP and/or the District at the time of approval of EP's Permit or were unanticipated due to circumstances beyond EP's control. EP will work with the District, and EP's District approved Compliance Administrator to implement its mitigation activities in a timely and consistent manner fair to affected private water well owners in an effort to build consensus and support in the community.

Eligibility for Mitigation by EP

Whether any alleged unreasonable impact to a well is attributable to EP's groundwater production, and the well owner is entitled to receive mitigation under the EP Mitigation will be determined by the District on the basis of actual aquifer conditions, well data collection, previously documented hydrogeologic modeling tools, and the proximity of the affected well(s) to the EP Well Field, and other relevant information, including data related to other known groundwater producing wells and projects in the area of the alleged impacted well(s). Factors to be considered in determining eligibility include, but are not limited to, the following:

1. **Designated Impact Area** - the location of the allegedly impacted well in the area of influence of the EP Well Field (the "DIA") identified in Attachment A to this Mitigation Plan.

2. **Well Construction and Completion** – evidence of whether the allegedly impacted well was (i) in operation prior to the commencement of production from the EP Well Field, (ii) completed to the state's minimum standards in place at the time of construction, and (iii) in compliance with the District's Rules, including the District's well construction rules, if applicable.

3. **Groundwater production zone** - The allegedly impacted well must be completed in and withdraw water from the formation or the hydrologically connected formations in which the production wells operating in the EP Well Field are completed.

4. **Natural Variability in Water Levels** – The allegedly impacted well must have been in an operational condition such that it was adequately completed and adequately equipped to account for water level drawdown attributed to drought conditions, seasonal increases in local pumping, normal pumping usage, and pumping from neighboring wells in the DIA.

5. **Time of Occurrence** – The allegedly impacted well was functioning as an adequate operational well prior to the issuance of EP's permit. The alleged unreasonable impact well issue occurred after the production at the EP Well Field commenced.

6. **Well Registration** - A well owner must have previously registered the allegedly impacted well, or must be willing to immediately register their well, and operate the same in compliance with the

Example Scenario:
Permitted Well XYZ - Mitigation Eligibility

In this specific example scenario the specific eligibility criteria are outlined and must be met for a well to be potentially be eligible for mitigation.

1. Designated Impact Area - The well must be located within the designated impact area for *Permitted Well XYZ* (inside the 20ft. drawdown contour of the hydrogeologic model).
2. Well Construction and Completion - The well must be equipped with operating pumping equipment and capable of conveying water to ground surface prior to March 1, 20xx.
3. Groundwater production zone - The well must be completed in and producing water from the Lower Glen Rose or Cow Creek formations of the Trinity Aquifer as determined by a geophysical log of the well borehole or drillers reports. Wells completed in the Upper Glen Rose section of the Trinity may not be eligible for mitigation.
4. Natural Variability - A well owner's pump must have been set at a minimum adequate pumping level which accommodates natural pumping variability of *X* number of feet below water level, as determined by the District's data evaluation.
5. Time of Occurrence - The well must be functioning as an adequately completed and equipped operating well and capable of conveying water to ground surface prior to March 1, 20xx. The well issue occurred after March 1, 20xx.
6. Well Registration - The well must be currently registered or become registered with the District at the time that the Well Impact Compliant Form is submitted.

District's Rules at the time that a well impact claim is filed.

Process for Review of Well Impact Complaints & Implementation of EP's Mitigation Plan

STEP 1. WELL OWNER – Contractor Diagnostics and Well Impact Complaint Form
If a well owner experiences well impacts related to any of the following, then the well owner may elect to submit a Well Impact Complaint form (the "Complaint Form") to the District and EP's District approved Third-party Administrator:

(i) a well ceasing to yield water at the ground surface;
(ii) a decrease in well yield that results in the well owner being unable to obtain either an authorized, historic, or usable volume or rate from a reasonably efficient water well;
(iii) the lowering of water levels below a feasible pumping lift or reasonable pump intake level;
(iv) the degradation of groundwater quality such that the water is unusable for its intended purpose or requires the installation of a treatment system.

A copy of the District approved Complaint Form is appended hereto as Attachment "B".

The Complaint Form, along with a conditionally reimbursable Investigation Fee in the amount of $____.00 payable to the District, must be submitted within 30 days of experiencing a well issue. To complete a Well Impact Complaint form, the well owner will be required to contract a licensed well service contractor or licensed pump installer for the purposes of completing a well diagnostics assessment. The District and EP's District approved Third-party Administrator expect the well owner to take all reasonable measures to first verify whether the problem may be attributed to the normal maintenance of the well and/or well equipment. The licensed well service contractor will also be required to document their diagnostic findings on the Complaint Form, and verify the following as build characteristics of the allegedly impacted well:

(i) total depth of the well, and
(ii) the static water level and the pump setting.

This diagnostic assessment shall be signed under oath by both the well owner and licensed well service contractor. All Well Impact Complaint Forms will be processed in a timely manner by District and/or District approved EP Third-party Administrator.

STEP 2. DISTRICT REVIEW - Verification of Diagnostics and Inspection

1. Once District and/or District approved EP Third-party Administrator receives and begins to process a Well Impact Complaint Form, an investigating representative will verify the documentation included with the completed well diagnostic assessment and the Complaint Form.
2. If the allegedly impacted well(s) is verified to be located within DIA, an investigating representative will set up a time to meet with the well owner and perform an initial site inspection of the well. During the initial inspection, the investigating representative will perform the following steps:

   (i) verify the existence, location, and operational status of the allegedly impacted well;
   (ii) collect a static water level reading, and a pumping level reading;
   (iii) take photographs, and GPS coordinate of the allegedly impacted well;
   (iv) collect copies of any information pertaining to the allegedly impacted well(s), e.g., state well reports, driller's invoices, geophysical logs, and registration documentation; and
   (v) consider whether installing well monitoring equipment is feasible.

3. **This inspection will be completed within 15 business days of receipt of a completed Well Impact Complaint Form, unless extended by the District's General Manager.**
4. The District and/or District approved EP Third-party Administrator will provide EP with a copy of the Complaint Form, and any supporting documentation provided by the complaint, together with a copy of the District's completed inspection report to allow EP the opportunity to rebut the complaint that the alleged unreasonable impact occurred and/or is reasonably attributable to groundwater production from the EP Well Field.

STEP 3. DISTRICT REVIEW - Verification of Eligibility for Mitigation & Monitor Well Evaluation

1. Upon completion of the site inspection and the verification of well owner diagnostics, District and/or District approved EP Third-party administrator will also confirm whether the allegedly impacted well meets the eligibility criteria for mitigation.
2. The District and/or District approved EP Third-party Administrator will conduct an initial evaluation of monitor well data in the vicinity of the allegedly impacted well and the production data from the production wells in the EP Well Field.
3. The District and/or District approved EP Third-party Administrator will conduct an initial evaluation of the information provided by EP in response to the allegations in the Complaint Form.
4. The Third-party Administrator in cooperation with District Staff/General Manager will provide a technical opinion and final decision on whether the allegedly impacted well experienced an unreasonable impact that can be reasonably attributed to groundwater production from the EP Well Field.
5. **This review will be completed within 45 days of a receipt of a completed Well Impact Complaint Form unless extended by the District's General Manager.**

STEP 4. DISTRICT NOTICE – Notification of Unreasonable Well Impact Determination

1. If the District and/or District approved EP Third-party Administrator finds, through an evaluation of data and through their final technical opinion, that an unreasonable impact attributable to groundwater production from the EP Well Field occurred, then a notification letter will be mailed to EP, the permitted pumper, notifying EP as the Permittee of the Well Impact Complaint. District and/or District approved EP Third-party Administrator will provide all relevant data and information relating to the complaint, the affected well, staff inspection reports, and evaluation data, and the determination to EP.
2. If an unreasonable impact can be reasonably attributed to the groundwater production from the EP Well Field, the District will reimburse the person submitting the complaint form and fee.
3. The Permittee and District staff may coordinate a meeting to discuss the evaluations relating to the well complaint. **This meeting will take place within 60 days of a receipt of a completed Well Impact Complaint Form and Investigation Fee.**
4. Upon the determination of an unreasonable impact attributable to groundwater production from the EP Well Field by the District or District approved EP Third-party Administrator, the District will require EP to either (i) implement its approved mitigation plan pursuant to the conditions and requirements of its Permit, which <u>may</u> include coordinating a temporary water supply for the affected well owner, or (ii) to commission its own investigation and diagnostics to include, at EP's costs, the following:

    (i) collecting a static water level reading, a pumping level reading;
    (ii) verifying the total depth of the well and the pump setting, and/or removing the submersible pump from the affected well so that a downhole television survey as well as a geophysical log may be performed on the well.

(iii) Use the information collected to determine alternative corrective actions to mitigate the impacts to the affected well.

(iv) Appeal the General Manager's and/or the District approved EP Third Party Administrator's technical opinion for required implementation of mitigation plan to the Board by filing a written notice of appeal with 90 days of the filing of the Complaint Form.

5. Upon final ruling of the District Board, if the Permittee either (i) disagrees with Board's affirmance of the General Manager's and/or the District approved EP Third Party Administrator's technical opinion for required implementation of mitigation plan, or (ii) elects not to implement the actions and measures of their submitted mitigation plan, then the District Staff may initiate a permit amendment that will be brought before the Board for action to permanently reduce or temporarily reduce the production permit for a specified time.

EP's Mitigation Action Options

Within 30 days following the District's determination of the existence of an unreasonable impact reasonably attributable to the production of groundwater from the EP Well Field, or any appeal therefrom by EP, EP shall implement the mitigation steps outlined in its plan or negotiate an alternative agreement with the affected well owners. These negotiated agreements, which are a commitment entered into by and between the Permittee and the affected well owners, shall be reduced to writing and signed by both parties. A copy of the agreement, or a memorandum of the agreement if the agreements terms are negotiated to be confidential, shall be filed with the District and included in the EP permit file.

The response measures outlined in a mitigation agreement are solely intended for impacts attributed to EP's pumping only. Acting through its District approved Third Party Administrator, EP shall cause all mitigation measures shall be diligently pursued to completion. The District shall be notified upon completion of the mitigation action(s). Among the mitigation actions EP may elect to take to address the impacts are the following:

1. Lowering the Submersible Pump

The well is deep enough, but the submersible pump is not set deep enough to accommodate projected water level impacts, EP may fund the cost for a licensed contractor to cause the existing submersible pump to be lowered to an appropriate depth. If lowering the existing pump will cause it to operate outside manufacturer's specifications, the permittee will provide an appropriately sized submersible pump.

2. **Deeping an Existing Well/Drilling a Replacement Well**

If the existing well is not deep enough to lower the submersible pump to accommodate for projected water level impacts, EP may elect to drill a replacement well deep enough to accommodate water level impacts attributed to EP's production. After the replacement well is completed and operable, the existing well will be plugged in accordance with applicable state and local regulations regarding abandoned wells.

3. **Connection to an Existing Water Purveyor**

In an instance where drilling a replacement well is necessary but not feasible, the permittee may provide the affected well owner the opportunity to connect to an existing public water supply purveyor. The permittee will pay for the initial cost of connection to the potable water service. Monthly bills from the water purveyor shall be paid by the affected well owner.

4. **Reimbursement**

Affected well owners that have had work performed on their wells in order to accommodate water level impacts determined to be attributable to EP's pumping may be eligible for reimbursement. The affected well(s) owner must demonstrate that all eligibility requirements are satisfied for a reimbursement claim to be considered. Each claim will be reviewed on an individual basis. Well owners seeking reimbursement should be prepared to provide suitable documentation regarding the condition of the well prior to modification, as well as itemized invoices that substantiate the work and equipment expenses incurred by the well owner. The permittee may elect to perform diagnostics on the existing well and/or the modified well in order to substantiate the reimbursement request. If approved, reimbursement will only be made to cover expenses necessary to modify the well to accommodate impacts attributable to the production of groundwater from the EP Well Field. Replacement or upgrading of equipment such as pressure tanks, booster pumps, etc. will not be reimbursed by EP.

5. **Monetary Settlement**

EP may elect to provide a monetary settlement to an affected well owner unreasonably impacted by groundwater production from EP's Well Field in lieu of EP's causing a licensed contractor to undertake modifications performed on their well to make it capable of accommodating projected water level impacts attributed to the permittee's pumping. Monetary settlements will be provided only to address issues relating to water level fluctuation or water quality issues. Approved modifications may include deepening the existing well, lowering the pump in the existing well, or a combination of both actions. If the existing well cannot be modified in a manner that will achieve appropriate mitigation measures, the permittee may elect to provide a monetary settlement for drilling a replacement well to a sufficient depth to account for the water level decline attributable to the permittee's pumping

Financial Commitment for Funding for EP's Mitigation Actions

The funding commitment created pursuant to EP's Compliance Monitoring Plan will be available and used to fund EP's implementation of it Mitigation Plan. Specifically, EP will either (i) fund a Trust identifying the BSEACD as the Beneficiary, or (ii) secure a Bond payable to BSEACD in the amount of not less than $50,000.00 to support its financial commitment to implement its Impact Avoidance Plan. The funding of the Trust or Bond will be replenished at least annually by EP as a condition to the renewal of its Permit. All income generated from any monies in the Trust and made available for purposes of the Trust. EP's Financial Commitment will be maintained to cover the costs associated with the implementation of EP's Impact of Avoidance Plan and Mitigation Plan during the life of the EP Permit.

Stipulations Related to EP's Mitigation Actions

1. The mitigation activities administered as part of the response efforts are considered "one time only" actions that are designed to address unreasonable water level impacts attributed to the production of groundwater from the EP Well Field;

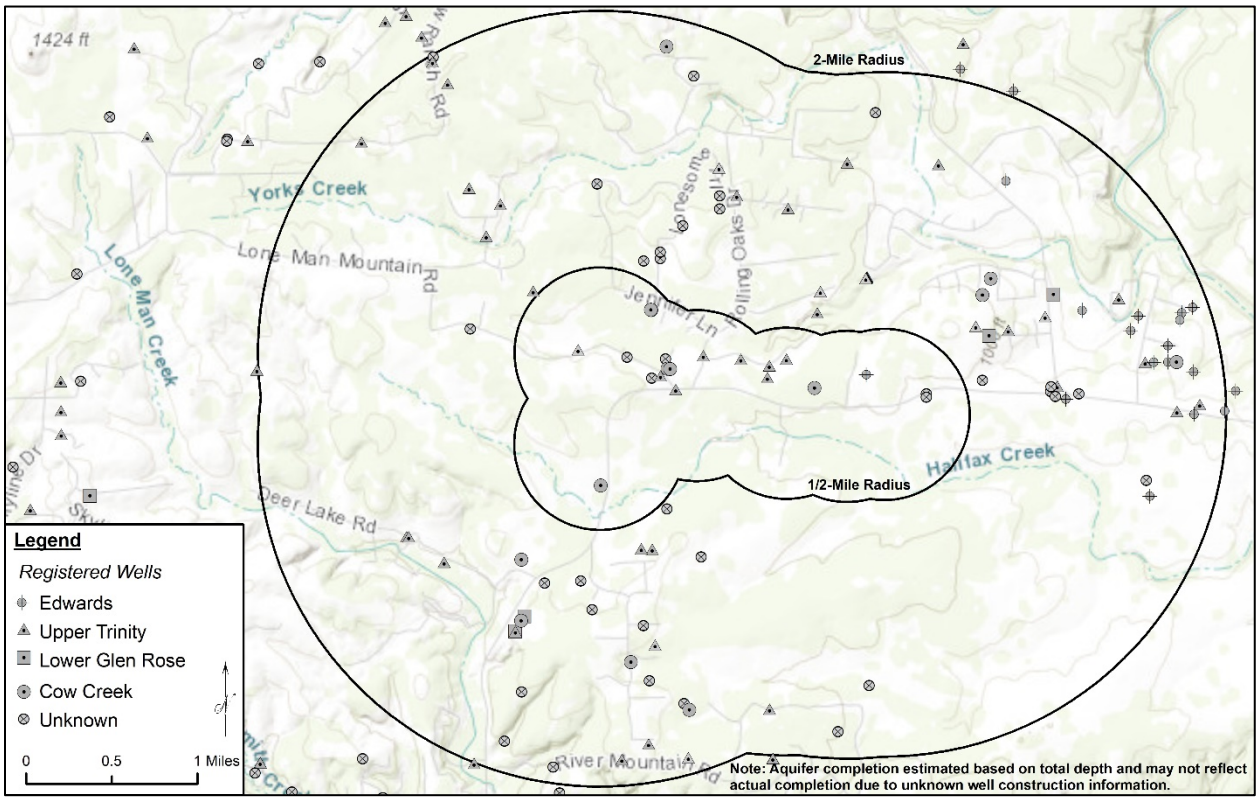
2. EP's mitigation activities shall not be deemed an admission of cause and effect, and the well owner(s) receiving mitigation shall not hold the expectation that all well/pump maintenance and operational problems that arise in the future (post-mitigation) are either due to, or to be remedied in perpetuity by EP.

3. EP will not be required to undertake mitigation efforts pursuant to this Plan for groundwater level impacts attributed to pumping by other water purveyors or private wells.

4. EP will not be required to accept responsibility for wells with documented pre-existing water quality issues and/or construction deficiencies.

Attachment A

Map Reflecting EP's Well Field Area of Influence



Attachment B

Well Owner's Impact Complaint Form

Barton Springs Edwards Aquifer CONSERVATION DISTRICT

Well Impact Complaint Form

1124 Regal Row ~ Austin, TX 78748 ~ 512-282-8441 ~ www.bseacd.org

If you have experienced a well impact that you allege is unreasonable and is caused by a nearby pumping well then complete this form and submit all required documentation, along with an Investigation Fee of $$. This form may be transmitted to EP's District approved Third Party Administrator (xxx) for review, processing and investigation.

Section I. Owner Contact Information

Property/Well Owner: _____Email:_____
Mailing Address:_____ City:_____ Zip:_____ County: _____
Primary Phone:_____ Secondary Phone: _____
Property lot size: _____ acres
How many active wells_____ and inactive wells_____

☐ Check this box if physical address is the same as mailing address
Physical Address for affected well:_____ City:_____ Zip:_____ County: _____
Well Coordinates (http://www.whatsmygps.com/) Latitude: _____ Longitude:_____

Section II. Well Information **(Complete one form for each well affected)**

1. Select ALL the use types that are currently supplied by the affected **primary well**.
   ☐ Livestock – Qty/Type_____
   ☐ Domestic (Residential Indoor & Outdoor use) - Number of homes served: ____
   ☐ Landscape Irrigation Only
   ☐ Unused - Capped, Plugged, Open

2. If known, please provide the following information about the affected **primary well**:
   □ Trinity Well □ Edwards □ Other_____Well Depth_____ Pump Size (horsepower):_____ Well Capacity (GPM):_____Water Level:_____Date well was drilled:_____ Well Driller:_____
3. Do you have a State Well Report or other records for this well that you can email or mail in? □ No □ Yes

Section III. **Description of Issue Occurring at the Affected Well**

- How long you have owned the property?
- When did the issue first arise? Describe the issue.
- List all known problems to have occurred in the well since its completion or since your ownership.
- Have you experienced issues with your well in quantity or quality during the Drought Periods of 2009-2012?
- What is the duration of the issue occurrence?
- When was the well last serviced? What company? Please provide records if available.
- How close is the nearest neighboring well?

Section IV. Water Well Contractor's Diagnostics Statement

You are required to select a local water well service contractor to complete this section of the form and to perform a basic water well diagnostics assessment. The diagnostics should assess the condition of the well including but not limited to the following:

- Well pump check (gpm)
- Power source electrical check
- Water quality samples (TDS, Sulfates)
- Leak Check
- Storage Tank assessment
- Pressure tank assessment
- Water Level
- Total Depth
- Current Pump Setting

A copy of the sworn written diagnostic assessment shall be appended hereto as Exhibit No.1

Section V. Materials to Submit

1. Submit a copy of the service receipt or invoice for performing the well diagnostics
2. Submit a copy of the well contractor's written diagnostics
3. Submit a copy of the well contractor's written estimate or completed charges for work performed.
4. Submit company info, name of licenses well driller or licensed pump installer, license number, contact info.

Section VI. Applicant or Authorized Agent Sworn Statement

I hereby notify the Barton Springs/Edwards Aquifer Conservation District and Third Party Administrator for the purpose indicated above for the water well described herein, and I certify that I am the property owner/grantor or lessee/grantee or an Authorized Agent, and that each and all the statements herein are true and correct. I hereby authorize the District or its representative access to this property following reasonable advance notice or, in an emergency, immediately, with such emergency access reported to the owner if advance notice was not possible. The District or its authorized representative may access the well for the purposes of inspecting, collecting water quality samples, and investigating conditions relating to the withdrawal, waste, water quality, pollution or contamination of groundwater.

_____	_____	_____
Signature of Applicant or Authorized Agent*	Print Name	Date

*(*Notarized Agent Authorization Form Required)*

State of Texas, County of _____ . SWORN TO AND SUBSCRIBED before me by the said owner or agent on this the ____day of _____20__.

_____	_____
Notary Public, State of Texas	My commission expires