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NV

March 22, 2022

SUBMITTED VIA E-PERMITTING PORTAL

Mr. Nelson Velez, Environmental Specialist - Advanced  
New Mexico Oil Conservation Division  
1220 South St. Francis Drive  
Santa Fe, NM 87505

RE: 2022 Monitoring Well Replacement Work Plan – Johnston Federal #6A Site  
El Paso CGP Company – Pit Groundwater Remediation Sites  
NMOCD Incident Number: nAUTOofAB000309

Dear Mr. Velez:

Stantec Consulting Services Inc. (Stantec), on behalf of El Paso CGP Company, LLC (EPCGP), is submitting the enclosed 2022 Monitoring Well Replacement Work Plan (Work Plan) for the Johnston Federal #6A Site (Site). The enclosed document contains the proposed methodology for over-drilling and replacing monitoring well MW-1 at the Site. Unless otherwise noted, the procedures outlined in this Work Plan meet or exceed the requirements established in EPCGP's "Remediation Plan for Groundwater Encountered During Pit Closure Activities" document approved by the New Mexico Oil Conservation Division (NMOCD) on November 30, 1995. The scope of work contained herein is scheduled to begin the week of April 11, 2022.

Please contact Mr. Joseph Wiley of EPCGP at (713) 420-3475, or me if you have any questions or comments concerning the enclosed Work Plan.

Sincerely,

Stantec Consulting Services Inc.

A handwritten signature in black ink, appearing to read "Stephen Varsa".

Stephen Varsa  
Project Manager  
Phone: (515) 251-1020  
steve.varsa@stantec.com

cc: Joseph Wiley, EPCGP (via electronic mail)  
Katie White Bull, Bureau of Land Management, Farmington Office (Grant NMNM133844)  
(via electronic mail)



2022 MONITORING WELL  
REPLACEMENT WORK PLAN

JOHNSTON FEDERAL #6A SITE  
NMOCD Incident # nAUTOofAB000309  
SAN JUAN COUNTY, NEW MEXICO

Prepared for:

El Paso CGP Company, LLC  
1001 Louisiana  
Houston, Texas 77002

Prepared by:

Stantec Consulting Services Inc.  
11311 Aurora Avenue  
Des Moines, Iowa 50322

March 22, 2022

2022 MONITORING WELL REPLACEMENT WORK PLAN  
JOHNSTON FEDERAL #6A PIT SITE, SAN JUAN COUNTY, NEW MEXICO

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2022 MONITORING WELL REPLACEMENT WORK PLAN  
JOHNSTON FEDERAL #6A PIT SITE, SAN JUAN COUNTY, NEW MEXICO

## SECTION 1 - INTRODUCTION

This Monitoring Well Replacement Work Plan (Work Plan) presents the scope of work to be completed to over-drill and replace one existing monitoring well at the former El Paso CGP Company, LLC (EPCGP) Johnston Federal #6A remediation site (Site) located in the San Juan River Basin near Farmington, New Mexico. There are currently 11 EPCGP monitoring wells (MW-1 through MW-11) at the Site. Light non-aqueous phase liquid (LNAPL) has historically been present in monitoring well MW-1 and has been removed via completion of several mobile dual-phase extraction (MDPE) events in 2018 and 2021, and by manual LNAPL recovery activities. Due to the age of the monitoring well, replacement of it is planned in order to facilitate future monitoring efforts.

The purpose of this Work Plan is to provide the field methods and an implementation schedule for over-drilling and replacing existing monitoring well MW-1. Section 2 describes the Site and the purpose behind the proposed monitoring well replacement. Section 3 provides details on the field methods to be used. Section 4 presents the anticipated implementation schedule.

## SECTION 2 - SCOPE OF WORK

The replacement monitoring well (designated MW-1R) is intended to facilitate future monitoring efforts and provide more representative groundwater samples from this location, to move the Site toward regulatory closure. Details of the proposed replacement of monitoring well MW-1 are provided below.

There are currently 11 monitoring wells (MW-1 through MW-11) at the Site. Monitoring well MW-1 will be over-drilled and replaced with monitoring well MW-1R.

The existing monitoring wells and proposed replacement monitoring well location are depicted on Figure 1.

## SECTION 3 - FIELD METHODS

The following subsections describe field procedures to be followed during the Site activities. Prior to conducting monitoring well installation activities, permits for the two monitoring wells will be obtained from the New Mexico Office of the State Engineer (NMOSE).

### 3.1 WELL OVER-DRILLING AND REPLACEMENT

Existing monitoring well MW-1 will be over-drilled and replaced. Activities will consist of first initiating NM811 notifications and completing underground utility and line locates, followed by clearing around the existing well pad with hand tools (i.e., shovel, post-hole digger, and hand-auger) to confirm no unmarked subsurface utilities or other obstructions are present prior to drilling activities. A truck-mounted, hollow-stem auger drill rig will be mobilized to the Site to remove the bollards and protective casing around MW-1 and over-drill and remove the existing well screen and casing. Once the existing well screen and casing are removed, augers will be advanced to a depth of 50 feet below ground surface (bgs) to facilitate installation of the replacement well, MW-1R. A Stantec field geologist will oversee the drilling activities. No soil sampling is proposed.

### 3.2 REPLACEMENT MONITORING WELL INSTALLATION

Replacement monitoring well MW-1R will be constructed of 4-inch-diameter, Schedule 40, 0.010-slot polyvinyl chloride (PVC) screen and 4-inch-diameter, Schedule 40 PVC riser casing. A 20-foot screen will be installed to the depth described in Figure 1, which is anticipated to intersect the groundwater surface (approximately 13 feet of well screen below the water table and approximately 7 feet of well screen above the water table) to provide sufficient water column for sample collection. The riser casing will extend from the top of the screen to approximately 2.5 feet above the ground surface. The annular space adjacent to the well screen will be filled with 10-20 silica sand from the bottom of the borehole to 2 feet above the top of the screen. Three (3) feet of hydrated bentonite chips will be placed above the silica sand to prevent downward migration of surface water. Bentonite grout will be placed above the bentonite chips to 6 inches below the bottom of the well vault.

A recycled, locking, protective steel stick-up well casing will be installed within a concrete pad on the ground surface from 3 feet above ground surface to 2 feet bgs. Silica sand will be placed from 6 inches below the bottom of the protective well casing (approximately 2.5 feet bgs) to within approximately 1 foot of the ground surface, or to a field-determined depth based on concrete pad placement. Recycled steel bollards will also be placed around the concrete pad to protect the well protective casing. Soft digging will be conducted to place the newly installed bollards. Upon completion, the well completion and bollards will be painted safety yellow, and the well identifier stenciled on the well completion. A zip tie will be used to secure the well.

Monitoring well development will be performed using a surge block and down-hole pump until sediment has been removed and visibly clear water is observed or the well runs dry. Upon completion of development, assuming LNAPL is not encountered; a HydraSleeve™ no-purge groundwater sampler and tether will be placed in the well. Stantec will survey the elevation of the replacement monitoring well.

### 3.3 GENERAL PROTOCOLS

This subsection presents a discussion of health and safety, documentation procedures, buried piping or utility identification, waste handling, and other procedures to be performed as part of the investigation.

### 3.3.1 Health and Safety

A Site-Specific Health and Safety Plan (HASP) will be prepared for groundwater monitoring, operations, maintenance, and drilling activities. The HASP includes guidance on the personal protective equipment (PPE) necessary for field activities, identified hazards associated with the field activities, and directions to the nearest medical facility. Flame-resistant clothing and Level D protective equipment will be worn, as required. A copy of the HASP will be on site at all times while work is being performed. The HASP will apply to Stantec employees, Stantec's subcontractors, and visitors at the Site.

### 3.3.2 Documentation Procedures

Data generated during the field investigation will be recorded on a well construction log. The well construction log will include the drilling method employed, and well screen, sand pack, wellbore seal, and surface completion details.

The field geologist will maintain a field logbook. At the end of each day of field activities, the notes will be dated and signed by the field geologist.

The daily field logbook will contain information such as:

- Date
- Name, location, and objective of the work activities
- Weather conditions
- Equipment calibration information
- Personnel and visitors on site
- Photograph numbers and descriptions (if applicable)
- Description of decontamination activities (if applicable)
- Any deviations from the Work Plan
- Other relevant observations as the fieldwork progresses
- Problems and corrective actions

### 3.3.3 Boring Locations and Utility Identification

Prior to any drilling or excavation, a call will be made to the New Mexico 811 "One Call" to verify utility clearance and to notify the operator. "One Call" will be notified that the soil boring location is staked or flagged and that the entire site and areas surrounding the borings should be marked. The clearance call must be made at least two working days prior to drilling, and site work must be completed within fifteen days of the clearance. In addition, access will be coordinated with the current operator of the Site prior to any drilling activities to allow location of any underground infrastructure and to comply with operator safety guidance.

### 3.3.4 Equipment Decontamination

Prior to drilling, down-hole equipment will be steam cleaned or scrubbed with a non-phosphate detergent (e.g., Liquinox®). Where feasible, equipment to be decontaminated will be disassembled to permit adequate cleaning of the internal portions of the equipment. Equipment to be steam cleaned will be placed into a self-contained decontamination trailer with metal cleaning racks that support the equipment for cleaning, rinsing, and air drying. Heavy waterproof gloves will be worn during steam cleaning to protect against skin contact with steam and potential contaminants.

2022 MONITORING WELL REPLACEMENT WORK PLAN  
JOHNSTON FEDERAL #6A PIT SITE, SAN JUAN COUNTY, NEW MEXICO

### 3.3.5 Investigation-Derived Waste

Soil cuttings generated from over-drilling activities will be containerized in labeled 55-gallon drums and staged on site for removal by a contracted transport and disposal company.

Decontamination and purge water generated through the development of the replacement monitoring well will be containerized in labeled 55-gallon drums and staged on site for removal with the soil cuttings.

Other investigation-derived wastes (i.e., excess well materials, bags, buckets, gloves), and debris, will be removed from the Site by the waste hauler for disposal as general construction/demolition debris.

Disposable equipment and PPE waste generated during field activities, including scrap PVC, concrete, steel, rope, disposable bailers, nitrile gloves, and Tyvek® suits, will be disposed in standard industrial dumpsters. In the event the waste is grossly contaminated, it will be containerized for proper disposal along with the other investigation-derived waste.

### 3.3.6 Field Equipment Calibration Procedures

With regard to organic vapor meters, field personnel will use a 10.6 electron volt (eV) PID for measuring ambient air in worker breathing zones during over-drilling and advancement of the replacement well. This instrument will be calibrated **prior to use according to the manufacturer's specifications**. The instrument calibration will be checked at the beginning of each day of use and any time meter drift is suspected. Calibration information will be recorded in the field logbook.

2022 MONITORING WELL REPLACEMENT WORK PLAN  
JOHNSTON FEDERAL #6A PIT SITE, SAN JUAN COUNTY, NEW MEXICO

#### SECTION 4 - SCHEDULE

It is anticipated that well replacement activities will commence the week of April 11, 2022. Utility locates must be verified prior to the work. Following installation, the replacement monitoring well will be prepared for groundwater sample collection. Assuming LNAPL is not encountered; following development, a HydraSleeve™ no-purge groundwater sampler and tether will be placed in the new well. The replacement well will be sampled on a semi-annual basis, with the first sampling event expected to occur in May 2022.

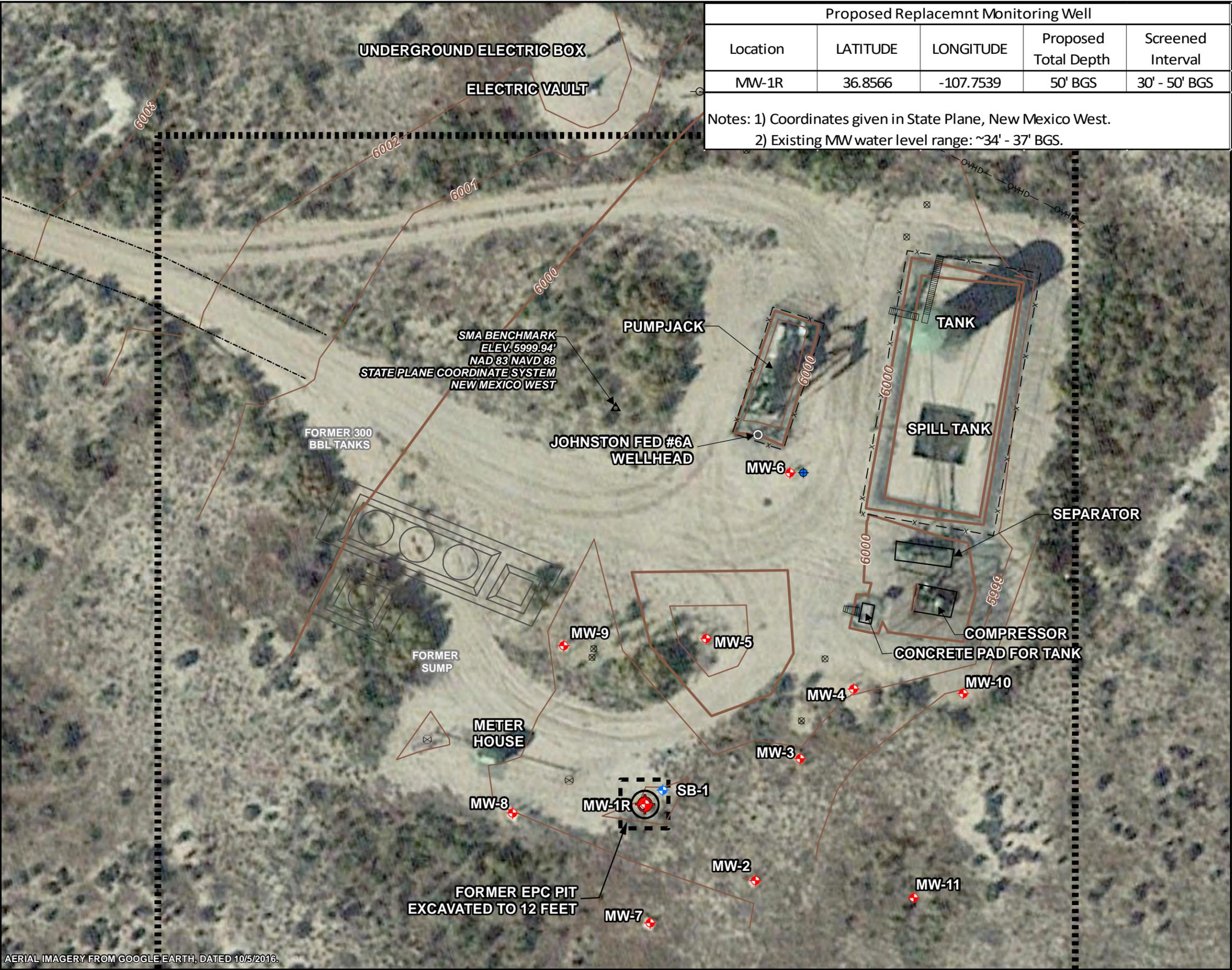
The well replacement activities, well construction log, and groundwater analytical results will be documented in the 2022 Annual Report, anticipated to be submitted by April 1, 2023.

**Figure**

\\Corp.ads\data\Virtual\_Workspace\workgroup\19374\active\193700102103\_data\gis\_cad\gis\GIS-NEW\MXDs\JOHNSTON FED#6A\Johnston\_Fed\_#6\_PROPOSED WELL LOCS 2022-02.mxd

Proposed Replacemnt Monitoring Well				
Location	LATITUDE	LONGITUDE	Proposed Total Depth	Screened Interval
MW-1R	36.8566	-107.7539	50' BGS	30' - 50' BGS

Notes: 1) Coordinates given in State Plane, New Mexico West.  
2) Existing MW water level range: ~34' - 37' BGS.



**LEGEND:**

- APPROXIMATE GROUND SURFACE CONTOUR AND ELEVATION, FEET
- RIGHT OF WAY BOUNDARY
- FORMER PIT OR EXCAVATION
- ACCESS ROAD
- FENCE
- OVERHEAD POWER LINE
- MONITORING WELL
- SOIL BORING
- MONITORING WELL TO BE REMOVED AND REPLACED
- GAS VALVE
- OTHER MONITORING WELL
- SMA BENCHMARK
- RIG ANCHOR
- WELLHEAD

**NOTES:**  
UTILITY LOCATIONS ARE APPROXIMATE.

SCALE IN FEET

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
	2022-02-15	SLG	SLG	SKY

TITLE: *PROPOSED MONITORING WELL LOCATION*

PROJECT: *JOHNSTON FED #6A  
SAN JUAN RIVER BASIN  
SAN JUAN COUNTY, NEW MEXICO*

Figure No.: **1**

AERIAL IMAGERY FROM GOOGLE EARTH, DATED 10/5/2016.

**District I**  
 1625 N. French Dr., Hobbs, NM 88240  
 Phone:(575) 393-6161 Fax:(575) 393-0720

**District II**  
 811 S. First St., Artesia, NM 88210  
 Phone:(575) 748-1283 Fax:(575) 748-9720

**District III**  
 1000 Rio Brazos Rd., Aztec, NM 87410  
 Phone:(505) 334-6178 Fax:(505) 334-6170

**District IV**  
 1220 S. St Francis Dr., Santa Fe, NM 87505  
 Phone:(505) 476-3470 Fax:(505) 476-3462

**State of New Mexico**  
**Energy, Minerals and Natural Resources**  
**Oil Conservation Division**  
**1220 S. St Francis Dr.**  
**Santa Fe, NM 87505**

CONDITIONS  
 Action 92285

**CONDITIONS**

Operator: El Paso Natural Gas Company, L.L.C 1001 Louisiana Street Houston, TX 77002	OGRID: 7046
	Action Number: 92285
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

**CONDITIONS**

Created By	Condition	Condition Date
nvelez	Accepted for the record. Please see App ID 201689 for most updated status.	5/17/2023