NV

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September 27, 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 Well Installation Activities Work Plan – Johnston Federal #4
El Paso CGP Company – Pit Groundwater Remediation Sites
NMOSE Incident Number nAUTOfAB000305

Dear Mr. Velez:

Stantec, on behalf of El Paso CGP Company, LLC (EPCGP), is submitting the enclosed 2022 Well Installation Activities Work Plan (Work Plan) for the Johnston Federal #4 Site (Site). The enclosed document contains the proposed methodology for the installation of four (4) soil vapor extraction (SVE) wells and two (2) monitoring wells at the Site. 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 October 10, 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.

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

/srv;rsm;see
cc: Joseph Wiley, EPCGP (via electronic mail)

Stantec

2022 WELL INSTALLATION ACTIVITIES WORK PLAN

Johnston Federal #4 PIT SITE
NMOCD Incident # nAUTOfAB000305
SAN JUAN COUNTY, NEW MEXICO

Prepared for:

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

Prepared by:

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Des Moines, Iowa 50322

September 27, 2022

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SECTION 1 - INTRODUCTION

This Well Installation Activities Work Plan (Work Plan) presents the scope of work for the installation of four (4) soil vapor extraction (SVE) wells and two (2) monitoring wells at the Johnston Federal #4 remediation site (Site), located in the San Juan River Basin near Farmington, New Mexico. There are currently twenty-one (21) monitoring wells (MW-1 through MW-4, and MW-6 through MW-22), twenty (20) air sparge (AS) wells (AS-3 through AS-22), and eight (8) SVE wells (SVE-1 through SVE-8) at the Site. Light non-aqueous phase liquid (LNAPL) is present in monitoring wells MW-21 and MW-22, and additional monitoring wells MW-24 and MW-25 will be installed in the downgradient direction (southeast) for further delineation. Installation of four SVE wells around MW-21 and MW-22 is proposed to help remediate hydrocarbons in this area once a SVE system is installed, anticipated for 2023. The Site is located on private (fee) land and access has been established. The Site has an operating production facility owned and maintained by Hilcorp Energy (Hilcorp). The existing and proposed well locations and other features are depicted in Figure 1.

The purpose of this Work Plan is to provide the necessary field methods and implementation schedule for the well installation activities. Section 2 describes the Site and the purpose behind the proposed well installation activities. Section 3 provides details on the field methods to be used. Section 4 presents the anticipated implementation schedule.

SECTION 2 - SCOPE OF WORK

Previous activities at the Site have delineated a majority of the extent of hydrocarbons present. Two monitoring wells (MW-24 and MW-25) are proposed to complete additional delineation. Four SVE wells (SVE-9 through SVE-12) are proposed to provide additional coverage to effectively remediate the remaining hydrocarbon impacts at the Site to levels acceptable to the New Mexico Oil Conservation Division (NMOCD).

The newly installed monitoring wells will be sampled during future groundwater monitoring events to help confirm the extent of hydrocarbons to the east. The newly installed SVE wells are to be incorporated into a remediation system planned for installation in 2023. A work plan describing the planned remediation system installation, start-up, and operation and maintenance activities will be submitted under separate cover.

SECTION 3 - FIELD METHODS

The following subsections describe field procedures to be followed during the Site activities.

3.1 SOIL BORINGS

The location of each proposed well will be staked prior to completing 811 locations. Once underground utility locating activities have been completed, hydro-excavating equipment will be used to clear the well locations to a depth of at least 5 feet below ground surface (bgs). When within 25 feet of existing pipelines or Hilcorp buried infrastructure, each borehole will be cleared to at least 8 feet bgs. Each hydro-excavated location will be covered and marked "hole" until well advancement begins. A truck-mounted, hollow-stem auger drill rig will be mobilized to the Site to advance soil borings up to 62 feet bgs at the proposed monitoring well locations and up to 50 feet bgs at the proposed soil vapor extraction well locations. The locations of the proposed wells are depicted in Figure 1.

For the monitoring wells, borehole logging will include Unified Soil Classification System (USCS) soil descriptions for the entire depth of the boring, along with a detailed description of each discrete lithologic unit. Soil samples will be collected for field screening and potential laboratory analysis at one-foot intervals, where possible, from a five-foot continuous sample barrel or equivalent sampler. When the sample core is collected, field personnel will field screen it using a pre-calibrated photoionization detector (PID) and record the readings. The field screening will be conducted by notching the soil in the core with a hand trowel or other pre-cleaned hand tool, and briefly placing the PID in the notch to measure impacts. The screening, in addition to visual and olfactory observations (e.g., observing apparent hydrocarbon staining), will aid in identifying whether a portion of the sample interval should be retained for potential laboratory analysis (i.e., suspected of having a hydrocarbon impact).

Soil samples retained for potential laboratory analysis will be placed in laboratory provided 4-ounce glass jars, sealed, labeled, and stored on ice. After the boring and soil screening are completed, one soil sample per boring, associated with the highest PID reading above the field-interpreted and/or gauged water table, will be shipped in an ice-filled cooler under standard chain-of-custody protocol to Eurofins TestAmerica, Inc. (Eurofins) in Pensacola, Florida. Samples not retained for analysis will be disposed of with the soil cuttings. The submitted soil sample will be analyzed for the presence of benzene, toluene, ethylbenzene, and total xylenes (BTEX) by United States Environmental Protection Agency (EPA) Method SW846 8021B; gasoline-range organics, diesel-range organics, and oil-range organics by EPA Method 8015 M, and chlorides by EPA Method 300.

For the SVE wells, soil sampling will be completed beginning at a depth of 35 feet bgs to the termination of the boring to log and document lithology in or near the screened intervals. No soil samples will be retained for laboratory analysis. Borehole logging will include USCS soil descriptions along with a detailed description of each discrete lithologic unit.

3.2 WELL INSTALLATION ACTIVITIES

Monitoring wells MW-24 and MW-25 will be constructed of 2-inch-diameter, Schedule 40, 0.010-slot polyvinyl chloride (PVC) screen and 2-inch-diameter, Schedule 40 PVC riser casing. A 25-foot screen will be installed to the depths described in Figure 1, which are anticipated to intersect the groundwater surface and 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 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 protective well casing. For each monitoring well, a 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. Three steel bollards will be placed around the concrete pads to protect the well protective casings. Once installed, the bollards and stick-up completions will be painted in safety yellow.

Each SVE well will be constructed to a depth of up to 50 feet bgs, with 10-feet of 4-inch diameter, Schedule 40, 0.01-slot polyvinyl chloride (PVC) screen. The annular space adjacent to the SVE well screen will be filled with 20-40 silica sand from the bottom of the borehole to 1 foot above the top of the screen. Five feet of bentonite chips or coated pellets will be placed above the silica sand and hydrated to provide a seal prior to placing the grout. Bentonite grout will be placed above the bentonite chips to approximately 3 feet bgs. The remaining portion of the SVE well annular space will be filled with sand or native soil to the surface to facilitate exposure and connection to conveyance piping at a later date. The well casing for each SVE well will be finished approximately 0.5 feet below ground surface and capped with a compression plug. An irrigation valve box will be placed over each well, and its location marked on either side of the valve box with flagged fence posts.

Augers and down-hole tooling used for installing the monitoring wells will be decontaminated before advancing each well. Monitoring well development will be performed using well swab surging and pumping until sediment has been removed and visibly clear water is observed or the well runs dry. Hydrasleeve™ samplers will be placed in each monitoring well following development activities, with the Hydrasleeve™ set approximately 5 feet below the water table. The well swab and down-hole pump will be decontaminated between holes.

For the SVE well installations, dry decontamination methods are planned for the augers used to advance and install the wells for efficiency. The SVE wells are expected to be dry and therefore, no well development will be performed.

Stantec will survey the location and elevation of the newly installed wells when completed. The wells will be professionally surveyed once a remediation system has been installed at the Site.

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 activities.

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 boring and well construction logs. The boring logs will include USCS descriptions, detailed lithologic descriptions, PID readings, length/percent recovery, sample collection intervals, and drilling method employed. The well construction logs will include 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 onsite
- 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
- Sample collection intervals and times
- 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 boring locations are staked or flagged and that the entire well pad 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 fourteen days of the clearance. Hydro-excavation clearing of boreholes will be conducted in accordance with Section 3.1 of the Work Plan. 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 Investigation-Derived Waste

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

Decontamination and purge water generated through the development of the new monitoring wells 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 monitoring well abandonment 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 of in standard industrial dumpsters.

3.3.5 Field Equipment Calibration Procedures

Field personnel will use a 10.6 electron volt (eV) PID for screening soil samples during advancement of soil borings. 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. All calibration information will be recorded in the field logbook.

SECTION 4 - SCHEDULE

The scope of work contained herein is scheduled to begin the week of October 10, 2022. Utility locates must be verified prior to the work. Completion of the planned activities will be summarized and reported in the 2022 Annual Report, anticipated to be submitted by April 1, 2023.

FIGURES

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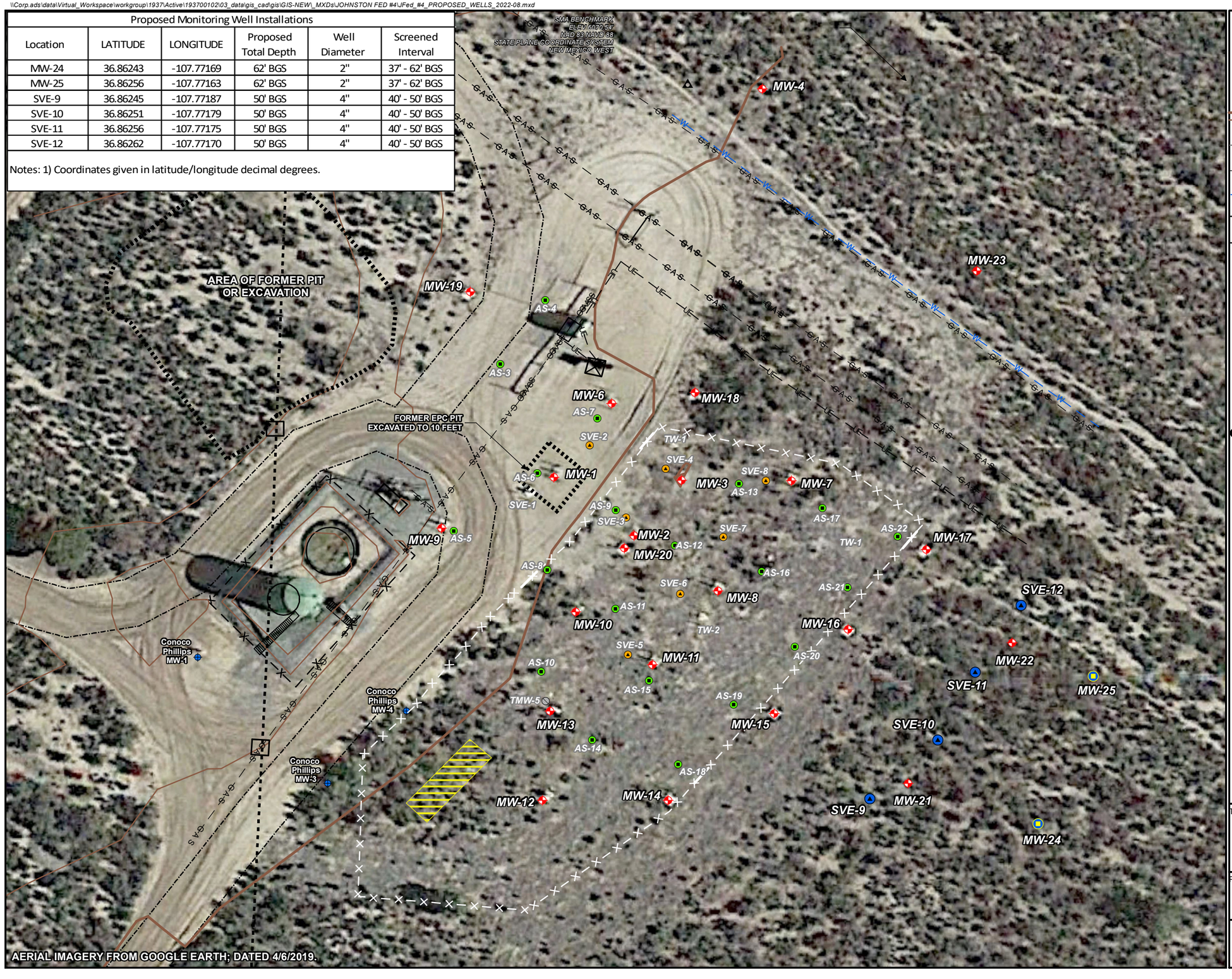
Proposed Monitoring Well Installations

Location	LATITUDE	LONGITUDE	Proposed Total Depth	Well Diameter	Screened Interval
MW-24	36.86243	-107.77169	62' BGS	2"	37' - 62' BGS
MW-25	36.86256	-107.77163	62' BGS	2"	37' - 62' BGS
SVE-9	36.86245	-107.77187	50' BGS	4"	40' - 50' BGS
SVE-10	36.86251	-107.77179	50' BGS	4"	40' - 50' BGS
SVE-11	36.86256	-107.77175	50' BGS	4"	40' - 50' BGS
SVE-12	36.86262	-107.77170	50' BGS	4"	40' - 50' BGS

Notes: 1) Coordinates given in latitude/longitude decimal degrees.



LEGEND:

EXISTING SITE FEATURES

- 6070 — APPROX. GROUND SURFACE CONTOUR AND ELEVATION, FEET
- ACCESS ROAD
- GAS — GAS LINE
- W — WATER LINE
- X — FENCE
- UE — UNDERGROUND ELECTRIC
- ABANDONED MONITORING WELL
- MONITORING WELL
- CONOCO PHILLIPS MONITORING WELL
- AIR SPARGE WELL
- SOIL VAPOR EXTRACTION WELL
- SMA BENCHMARK
- FENCE
- GATE
- SURVEY POST
- EQUIPMENT PAD AREA

PROPOSED SITE FEATURES

- PROPOSED MONITORING WELL LOCATION
- PROPOSED SOIL VAPOR EXTRACTION WELL LOCATION

N

SCALE IN FEET

0 30 60

REVISION	DATE	DESIGN BY	DRAWN BY	REVIEWED BY
	2022-08-22	SAH	SAH	SRV

TITLE:

PROPOSED WELL LOCATIONS

PROJECT:

JOHNSTON FED #4
SAN JUAN RIVER BASIN
SAN JUAN COUNTY, NEW MEXICO

Stantec

Figure No.: 1

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

CONDITIONS

Action 146981

CONDITIONS

Operator:	OGRID:
El Paso Natural Gas Company, L.L.C 1001 Louisiana Street Houston, TX 77002	7046
	Action Number: 146981
	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 201686 for most updated status.	5/17/2023