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**REVIEWED**

**By Nelson Velez at 10:21 am, Nov 23, 2022**

Accepted for the record. OCD approves the monitor well installation work plan for sampling station identified as MW-8.

March 18, 2022

**SUBMITTED VIA E-PERMITTING PORTAL**

Mr. Nelson Valez, Environmental Specialist - Advanced  
New Mexico Oil Conservation Division  
Energy, Minerals, and Natural Resources Division  
1220 South St. Francis Drive, Santa Fe, NM 87505

RE: 2022 Monitoring Well Installation Activities Work Plan – Gallegos Canyon Unit #124E Site  
El Paso CGP Company – Pit Groundwater Remediation Sites  
NMOCD Incident Number: nAUTOfAB000205

Dear Mr. Valez:

Stantec Consulting Services Inc. (Stantec), on behalf of El Paso CGP Company, LLC (EPCGP), is submitting the enclosed 2022 Monitoring Well Installation Activities Work Plan (Work Plan) for the Gallegos Canyon Unit #124E Site (Site). The enclosed document contains the proposed methodology for the installation of one monitoring well, MW-8, 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 14, 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 blue ink, appearing to read 'Stephen Varsa'.

Stephen Varsa  
Project Manager  
Phone: (515) 251-1020  
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cc: Joseph Wiley, EPCGP (via electronic mail)  
Steve Austin, Navajo EPA (via electronic mail)



**2022 MONITORING WELL  
INSTALLATION WORK PLAN**

GALLEGOS CANYON UNIT #124E SITE  
NMOCD Incident # nAUTOAB000205  
SAN JUAN COUNTY, NEW MEXICO

**Prepared for:**

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

**Prepared by:**

Stantec Consulting Services Inc.  
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March 18, 2022

2022 MONITORING WELL INSTALLATION WORK PLAN  
GALLEGOS CANYON UNIT #124E PIT SITE, SAN JUAN COUNTY, NEW MEXICO

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**2022 MONITORING WELL INSTALLATION WORK PLAN  
GALLEGOS CANYON UNIT #124E PIT SITE, SAN JUAN COUNTY, NEW MEXICO**

## **SECTION 1 - INTRODUCTION**

This Monitoring Well Installation Work Plan (Work Plan) presents the scope of work to be completed to install one monitoring well at the former El Paso CGP Company, LLC (EPCGP) Gallegos Canyon Unit #124E remediation site (Site) located in the San Juan River Basin, New Mexico. There are currently six EPCGP monitoring wells (MW-1, and MW-3 through MW-7) at the Site. Light non-aqueous phase liquid (LNAPL) has been encountered in monitoring well MW-5, where an additional monitoring well is not present to the northwest. The proposed installation of MW-8 will provide a monitoring point in this direction.

The purpose of this Work Plan is to provide the field methods and an implementation schedule for installation of monitoring well MW-8. Section 2 describes the Site and the purpose behind the proposed monitoring well installation. Section 3 provides details on the field methods to be used. Section 4 presents the anticipated implementation schedule.

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**SECTION 2 - SCOPE OF WORK**

The proposed monitoring well (designated MW-8) is intended to provide a sampling location northwest of MW-5 where LNAPL has been encountered, to further assess the presence of LNAPL at the Site and assist in the delineation of groundwater to applicable New Mexico Water Quality Control Commission standards. Details of the proposed installation of monitoring well MW-8 are provided below.

There are currently six monitoring wells (MW-1, and MW-3 through MW-7) at the Site. The proposed monitoring well will be installed to the northwest of existing monitoring well MW-5.

The existing and proposed monitoring well locations are depicted on Figure 1.

**2022 MONITORING WELL INSTALLATION WORK PLAN  
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## **SECTION 3 - FIELD METHODS**

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

### **3.1 SOIL BORING**

A truck-mounted, hollow-stem auger drill rig will be mobilized to the Site after underground utility and line locates have been completed. The drill rig will be used to advance a soil boring to an anticipated depth of 40 feet below ground surface (bgs), to facilitate installation of monitoring well MW-8. Prior to advancing the soil boring, soft-digging methods will be utilized to clear the borehole to a depth of at least five feet bgs to confirm no unmarked subsurface utilities or other obstructions are present.

Once soft digging activities have been completed, borehole advancement will be conducted from the soft-digging termination depth to the base of the borehole using hollow-stem auger and continuous-core sampling methods. Soil samples will be collected during advancement and logged using Unified Soil Classification System (USCS) soil descriptions. In addition to the USCS descriptions, the field geologist will provide 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. After the sample core is collected, field personnel will field screen 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 a laboratory-provided 4-ounce glass jar, sealed, labeled, and stored on ice. After the boring and soil screening are completed, one soil sample, 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 Environment Testing Southeast, LLC (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.

### **3.2 MONITORING WELL INSTALLATION**

Monitoring well MW-8 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 20-foot screen will be installed to depths 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) and provide sufficient water column for sample collection. The riser casing will extend from the top of the screen to approximately 4-inches below 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.

**2022 MONITORING WELL INSTALLATION WORK PLAN  
GALLEGOS CANYON UNIT #124E PIT SITE, SAN JUAN COUNTY, NEW MEXICO**

A traffic-rated, bolt-down, steel manhole, centered in a 3-foot diameter concrete pad, will be installed over the new monitoring well at grade level. A locking water-tight cap will be placed over the top of the well casing. 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, the well will be fitted with HydraSleeve™ no-purge groundwater sampling device. Stantec will survey the locations and elevations of the new 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 boring and well construction log. The boring log will include USCS descriptions, detailed lithologic descriptions, PID readings, length/percent recovery, sample collection intervals, and drilling method employed. The well construction log 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 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
- 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 soil boring location is staked or flagged and that the entire Site and areas surrounding the boring should be marked. The clearance call must be made at least two working days prior to drilling, and site work must be

**2022 MONITORING WELL INSTALLATION WORK PLAN  
GALLEGOS CANYON UNIT #124E PIT SITE, SAN JUAN COUNTY, NEW MEXICO**

completed within ten 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 and to reduce the potential for cross-contamination between samples.

### **3.3.5 Investigation-Derived Waste**

Soil cuttings generated from 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 new 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 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 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 screening soil samples during advancement of the soil boring. 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 INSTALLATION WORK PLAN  
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**SECTION 4 - SCHEDULE**

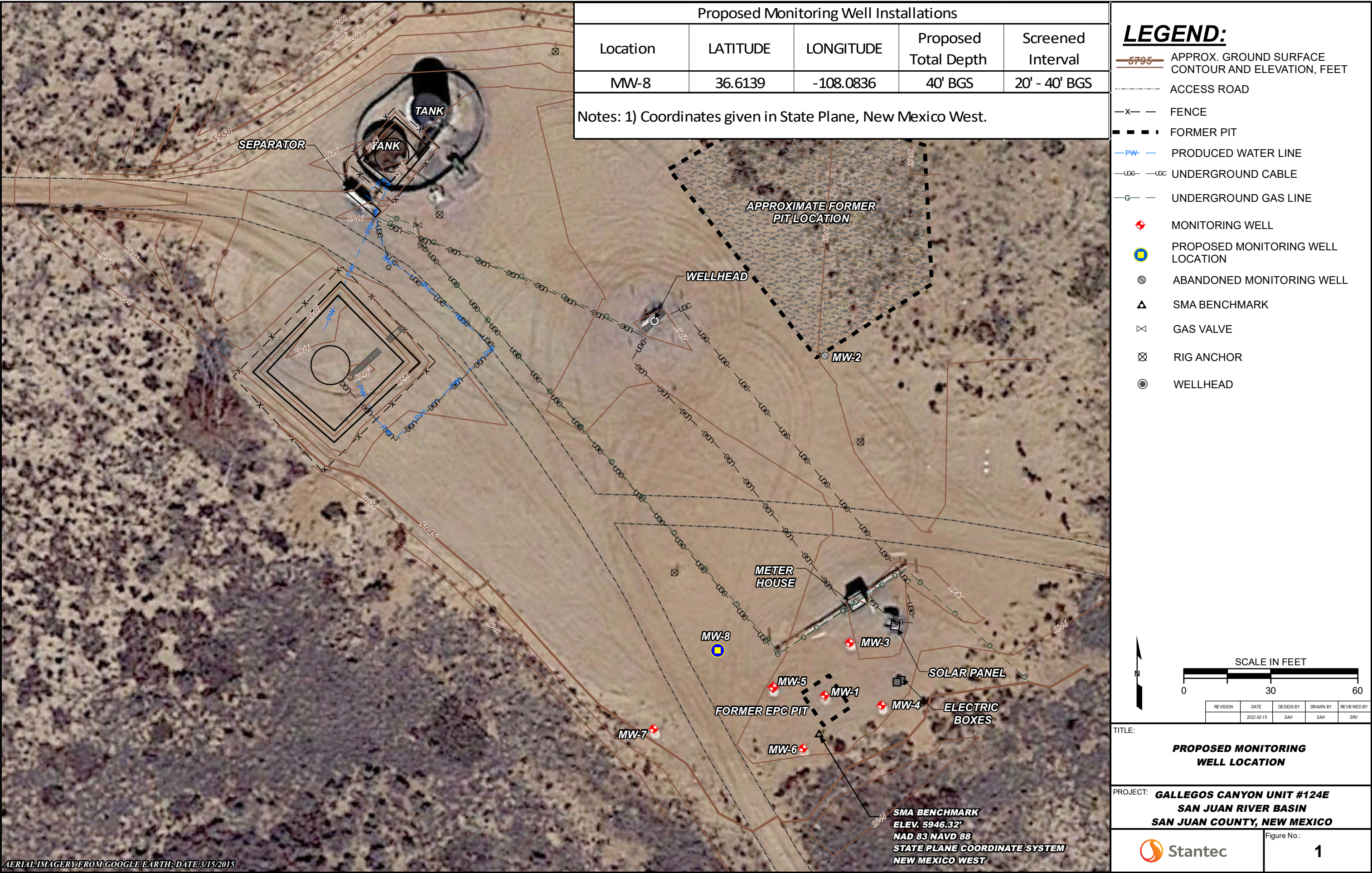
It is anticipated that well installation activities will commence the week of April 11, 2022. Utility locates must be verified prior to the work. Following installation, the new monitoring well will be prepared for groundwater sample collection. Assuming LNAPL is not encountered; following development,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

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

**Figure**



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CONDITIONS

Action 91393

**CONDITIONS**

Operator: El Paso Natural Gas Company, L.L.C 1001 Louisiana Street Houston, TX 77002	OGRID: 7046
	Action Number: 91393
	Action Type: [UF-GWA] Ground Water Abatement (GROUND WATER ABATEMENT)

**CONDITIONS**

Created By	Condition	Condition Date
nvelez	Accepted for the record. OCD approves the monitor well installation work plan for sampling station identified as MW-8.	11/23/2022