



TRANSWESTERN PIPELINE COMPANY  
An ENERGY TRANSFER Company

May 27, 2015

Mr. Dave Cobrain  
New Mexico Environment Department  
Hazardous Waste Bureau  
2905 Rodeo Park Drive East, Building 1  
Santa Fe, New Mexico 87505-6313

Mr. Tim Griswold  
New Mexico Oil Conservation Division  
Environmental Bureau  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

**RE: Notice of Revisions to the Operation and Maintenance (O&M) and Monitoring Plans**  
Transwestern Roswell Compressor Station No. 9  
Transwestern Pipeline Company, LLC  
Roswell, Chavez County, New Mexico  
NMED 1656; NMOCD Case #GW-052  
EPA ID NO. NMD986676955

Dear Messrs. Cobrain and Griswold:

Transwestern Pipeline Company, LLC (Transwestern), in accordance with *Provision IV.A. Remediation System and Groundwater Monitoring* of the March 2013 *Stipulated Final Order* for Transwestern's Compressor Station No. 9 (Facility), is hereby providing this letter to notify both the New Mexico Environment Department (NMED) and the New Mexico Oil Conservation Division (OCD) of the revisions to the O&M and groundwater monitoring plans for the Facility.

### **Introduction**

This Revised *Operating and Maintenance Plan (O&M)* was prepared by EarthCon Consultants, Inc. (EarthCon) on behalf of Transwestern Pipeline Company, LLC (Transwestern) for the former Surface Impoundment project at the Transwestern Compressor Station No. 9 (also known as the Roswell Compressor Station) property located at 6381 North Main Street in Roswell, New Mexico. On March 13, 2013, the NMED issued a Stipulated Order (SO) that governs on-going response activities associated with the former Surface Impoundment project. Therefore, this Revised O&M was developed in general accordance with *Section IV – Interim Status Hazardous Waste Management Unit Closure* of the SO.

The Facility is an active natural gas compression station, owned and operated by Transwestern, located approximately 8 miles north of the city center of Roswell, New Mexico along the eastern side of U.S. Highway 285. The Facility occupies approximately 77 acres of land in Section 21 (SW¼ of the SW¼) and Section 28 (NW¼ of the NW¼) of Township 9S and Range 24E, Chaves County, New Mexico (see **Figure 1-1**). Access is via U.S. Highway 285, and the entire Facility is secured by a chain-link fence with locked gates.

The Project Area encompasses a portion of the northwest corner of the Facility, and extends off-site to the northeast and east of the Facility on a portion of a 40-acre easement leased from the New Mexico State Land Office (SLO) State Trust Land for remediation and monitoring purposes (see **Figure 1-2**). A majority of the off-site extraction and monitoring wells are located within a fenced perimeter.

The Facility is located along the Transwestern natural gas pipeline that extends from Texas to the Arizona/California border, and serves as the district offices for Transwestern's New Mexico operations. The compressor station services two 30-inch Mainlines and two 24-inch Lateral pipelines. The primary function of the compressor station is to boost the pressure of the natural gas stream by means of compressors powered by natural gas-fueled internal combustion engines. Additionally, the Facility conducts gas transmission line maintenance operations that generate waste hydrocarbons, including condensate, pigging and other wastes, which were historically discharged to the Former Surface Impoundments (also referred to as Pits 1 and 2). Wastes generated by current pipeline maintenance activities are temporarily stored in aboveground storage tanks at the Facility for off-site recycling.

Following removal of waste from the Former Surface Impoundments and backfilling with clean soil in 2001, a soil and groundwater remediation system was designed and installed to address dissolved and phase separated hydrocarbons (PSH) detected in groundwater.

The remediation system consists of soil vapor extraction (SVE) and treatment, and groundwater/PSH recovery and treatment (see remediation system layout and components in **Figures 1-3** and **1-4**). Soil vapor is extracted via SVE-only wells and Multi-Phase Extraction (MPE) wells; with the extracted vapors routed to two Baker Furnace thermal oxidizer units for treatment. Groundwater and PSH are recovered via 14 pneumatic pumps installed in MPE wells; the recovered fluids are conveyed to a 90-barrel aboveground storage tank that serves as surge tank and separation unit. Separated groundwater is conveyed to a treatment train consisting of an air stripper, followed by two granulated activated carbon (GAC) units in series. The treated water is then conveyed to an irrigation water tank for dispersal via a permitted irrigation system (Discharge Permit GW-052). PSH separated in the surge tank is removed and sent off-site to a permitted facility for recycling. The SVE portion of the system began operation in March 2003, while the groundwater/PSH recovery portion of the system began operation in April 2004.

The recovery system well network currently consists of twelve SVE-only wells and 35 MPE wells. Currently, a network of 30 monitoring wells (29 installed in the Uppermost Aquifer and one installed in the deeper regional San Andres Formation Aquifer) is used to assess groundwater conditions within the Project Area.

The SVE portion of the system operates continuously, and groundwater/PSH recovery occurs from spring to fall, with brief shutdowns for repair and maintenance. In addition, the system is shutdown for 48 to 72 hours in preparation for semiannual monitoring.

### **Sampling and Monitoring**

**Tables 1 and 2** document the sampling and monitoring parameters, as well as the sampling frequency, for the SVE system and groundwater monitoring to be conducted for this project. Sampling will include collection of the appropriate duplicates, field blanks, equipment blanks, rinsate blanks and trip blanks to confirm data quality. Purged groundwater and equipment decontamination water will be collected in a clean 55-gallon drum during sampling and then transferred to the surge tank for on-site treatment and disposal. Transwestern implemented

additional groundwater sampling in monitoring wells (or MPE wells) that accumulate PSH for the purpose of assessing loading of the dissolved plume via the PSH. Semi-annual data is expected to be collected in April/May and November/December of each year, depending upon the scheduling of events.

Quarterly air samples from the influent stream to the Baker Furnaces will be analyzed using EPA method TO-15, as requested in NMED's response dated June 24, 2014 to the *2013 Groundwater Remediation Activities Report*.

Monthly samples will be collected from the groundwater treatment system, when it is operating, at four locations or stages in the train: at the inlet of the air-stripper (or pre-treatment); at the outlet of the air stripper; at the outlet of the first GAC unit; and at the outlet of the irrigation water holding tank (or post-treatment). Samples from the first three treatment stages will be analyzed for BTEX via method 8021B, and the post-treatment sample will be analyzed for anions via EPA method 300.0, dissolved metals via EPA method 200.7, and VOCs via EPA method 8260B.

Data obtained on the status of the system and the results of groundwater monitoring events will be submitted to NMED on an annual basis as required in the SO. Reporting formats will provide both historic and current groundwater monitoring data. The *Annual Monitoring Report*, documenting groundwater sampling and operational results, will be submitted to IDEM by March 31 of the following year.

### **Operating and Maintenance Activities**

**Appendix A** contains blank forms used for documenting the onsite O&M.

Balancing of the system will be necessary on an intermittent basis to optimize the effectiveness of the system. Balancing the system will include flow adjustments to maintain the desired vapor flow gradients, optimize VOC removal rates, or stay within the design flow rates for the vapor treatment systems. Pneumatic pumps will be moved as necessary into different wells to optimize system effectiveness.

During its period of operation, the soil vapor extraction system may shut down for a variety of reasons. Downtimes may include the following reasons:

- Frozen Equipment – If the system is mounted on a skid, there exists the potential for frozen equipment and/or extraction lines. It is expected that the extraction lines will be buried and/or heat traced to prevent this occurrence.
- Air/Water Separator – The system includes an air/water separator to knock water out of the air stream prior to its discharge to atmosphere that will shut down when the high level switch is activated by the water level.
- Equipment malfunctions, such as broken belt.
- System is shut down 48 to 72 hours prior to groundwater sampling.
- Routine maintenance.
- Power outages – During the summertime power surges are not uncommon.

As these situations arise, they are addressed by the team assigned to the project. Transwestern will notify NMED in the Annual Groundwater Monitoring Report of remediation system repairs, maintenance or system shutdown when the system is not in operation for longer than 48 hours

If you have any questions or comments regarding this submission, please do not hesitate to contact me at 210.870.2725 (office) or JD Haines of EarthCon Consultants, Inc. at (317) 450-6126.

Sincerely,



Stacy Boultinghouse, PG (TX4889/LA73)  
Environmental Manager  
Transwestern Pipeline Company, LLC  
Stacy.Boultinghouse@energytransfer.com

Attachments:

Table 1	Sampling Plan
Table 2	Groundwater Sampling Plan
Figure 1-1	Site Location Map
Figure 1-2	Site Features
Figure 1-3	Remediation System Layout
Figure 1-4	Equipment Compound Detail
Figure 1-5	Well Locations
Appendix A	Operating and Maintenance Forms

ec: Neelam Dhawan, Hazardous Waste Bureau, New Mexico Environment Department  
Vicky Baca, Hazardous Waste Bureau, New Mexico Environment Department  
Tim Gum, Environmental Bureau, New Mexico Oil Conservation Division (Artesia)  
Laurie King, US Environmental Protection Agency - Region 6  
Richard Spell - Transwestern Pipeline Company (Houston, TX)  
Larry Campbell - Transwestern Pipeline Company (Roswell, NM)  
JD Haines - EarthCon Consultants, Inc.

## Tables

**Table 1**  
**Sampling Plan**  
**Transwestern Compressor Station No. 9 - Roswell, NM**

Sampling	Frequency	Location	Method
Groundwater	Semi-Annual	Table 2	Table 2
Accumulated PSH wells	Semi-Annual	MW-27, MPE-31 and MPE-27	Table 2
Air	Monthly	Influent stream to Baker Furnaces	EPA method TO-15
Recovery System	Monthly (when running)	1) inlet to air-stripper (pretreatment) 2) outlet of air-stripper 3) outlet of first GAC unit 4) outlet of irrigation water holding tank (post-treatment)	1) BTEX (EPA 8021B) 2) BTEX (EPA 8021B) 3) BTEX (EPA 8021B) 4) Anions (EPA 300.0), Dissolved metals (EPA 200.7), VOCs (EPA 8260B)
PID Reading	Quarterly	All wells	--

**Table 2**  
**Groundwater Sampling Plan**  
**Transwestern Compressor Station No. 9 - Roswell, NM**

<b>Well ID</b>	<b>1st Semiannual Event Analytical Requirements</b>	<b>2nd Semiannual Event Analytical Requirements</b>
MW-13	---	BTEX
MW-14	---	BTEX
MW-16	BTEX	BTEX
MW-20	VOCs	VOCs
MW-21	---	BTEX
MW-22	VOCs	VOCs
MW-24D	---	BTEX
MW-26	VOCs	VOCs
MW-27	BTEX	BTEX
MW-29	BTEX	BTEX
MW-32	BTEX	BTEX
MW-34	BTEX	BTEX
MW-35	BTEX	BTEX
MW-37	BTEX	BTEX
MW-39	VOCs	VOCs
MW-40	VOCs	VOCs
MW-41	VOCs	VOCs
MW-42	VOCs	VOCs

Notes:

BTEX (Benzene, Toluene, Ethylbenzene and Xylenes) and VOCs (Volatile Organic Compounds) to be analyzed by EPA method 8260

\* Collect:

Field Duplicates - as indicated above.

Field Blanks - Minimum of 1/day, sample for VOCs

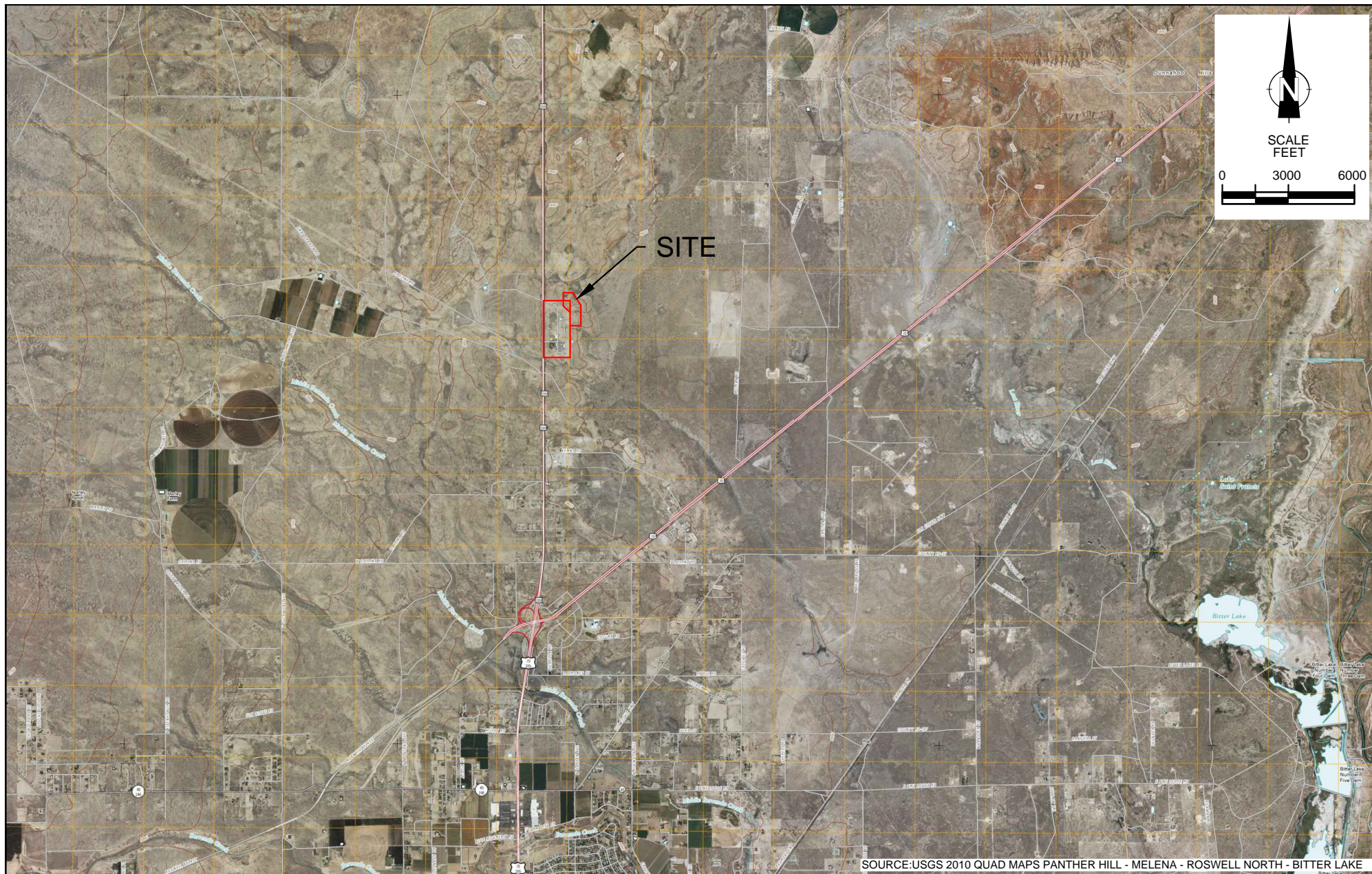
Equipment Rinsate Blanks - Decontaminated Equipment: 10% or

Minimum of 1/day (on MW-24D sample for BTEX)

Equipment Rinsate Blanks - Disposable Bailers: 1/day, sample for VOCs

## Figures





TRANSWESTERN PIPELINE COMPANY, LLC  
TRANSWESTERN COMPRESSOR STATION No. 9  
(ROSWELL COMPRESSOR STATION)  
ROSWELL, CHAVES COUNTY, NEW MEXICO

PROJ. NO: 02.20120037.00

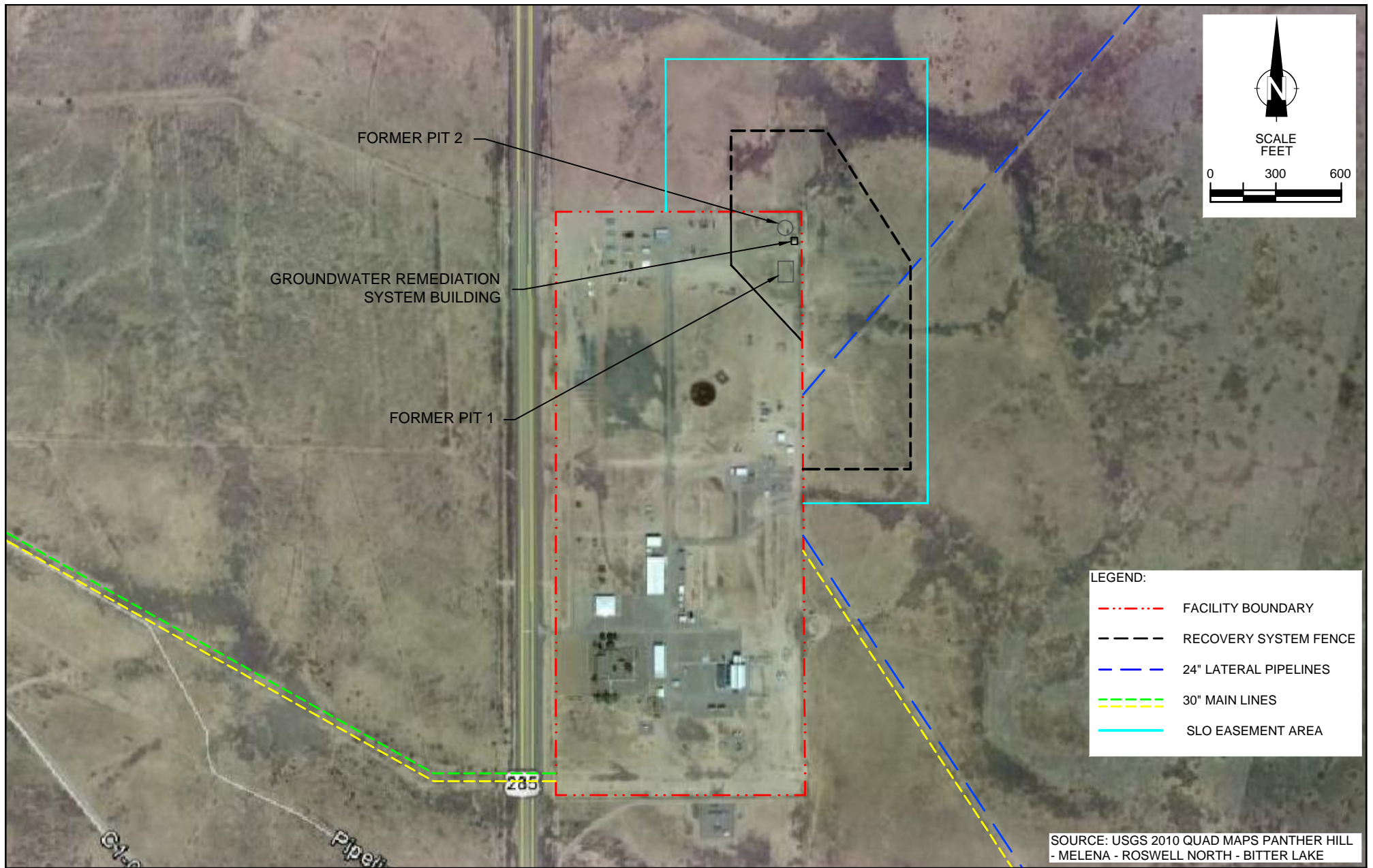


14405 Walters Rd, Suite 700  
Houston, TX 77014

SITE LOCATION MAP

DRAWN:	LDG	CHECKED:	GPF	DATE:	03/14	FIGURE:	1-1
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TRANSWESTERN PIPELINE COMPANY, LLC  
 TRANSWESTERN COMPRESSOR STATION No. 9  
 (ROSWELL COMPRESSOR STATION)  
 ROSWELL, CHAVES COUNTY, NEW MEXICO

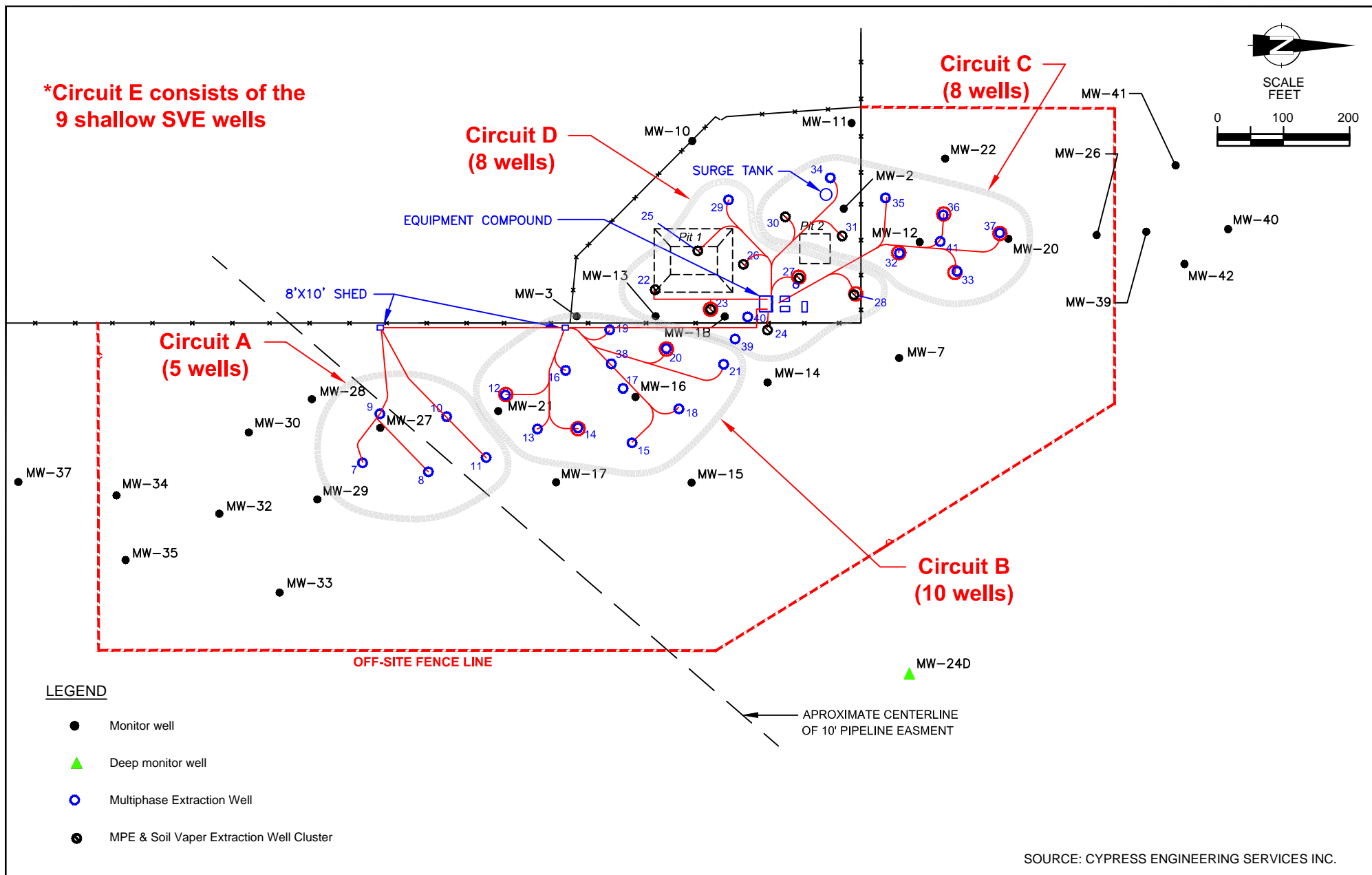
PROJ. NO: 02.20120037.00



14405 Walters RD, Suite 700  
 Houston, TX 77014

#### SITE FEATURES

DRAWN:	LDG	CHECKED:	GPF	DATE:	03/14	FIGURE:	1-2
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TRANSWESTERN PIPELINE COMPANY, LLC  
TRANSWESTERN COMPRESSOR STATION No. 9  
(ROSWELL COMPRESSOR STATION)  
ROSWELL, CHAVES COUNTY, NEW MEXICO

PROJ. NO: 02.20120037.00

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REMEDIATION SYSTEM LAYOUT

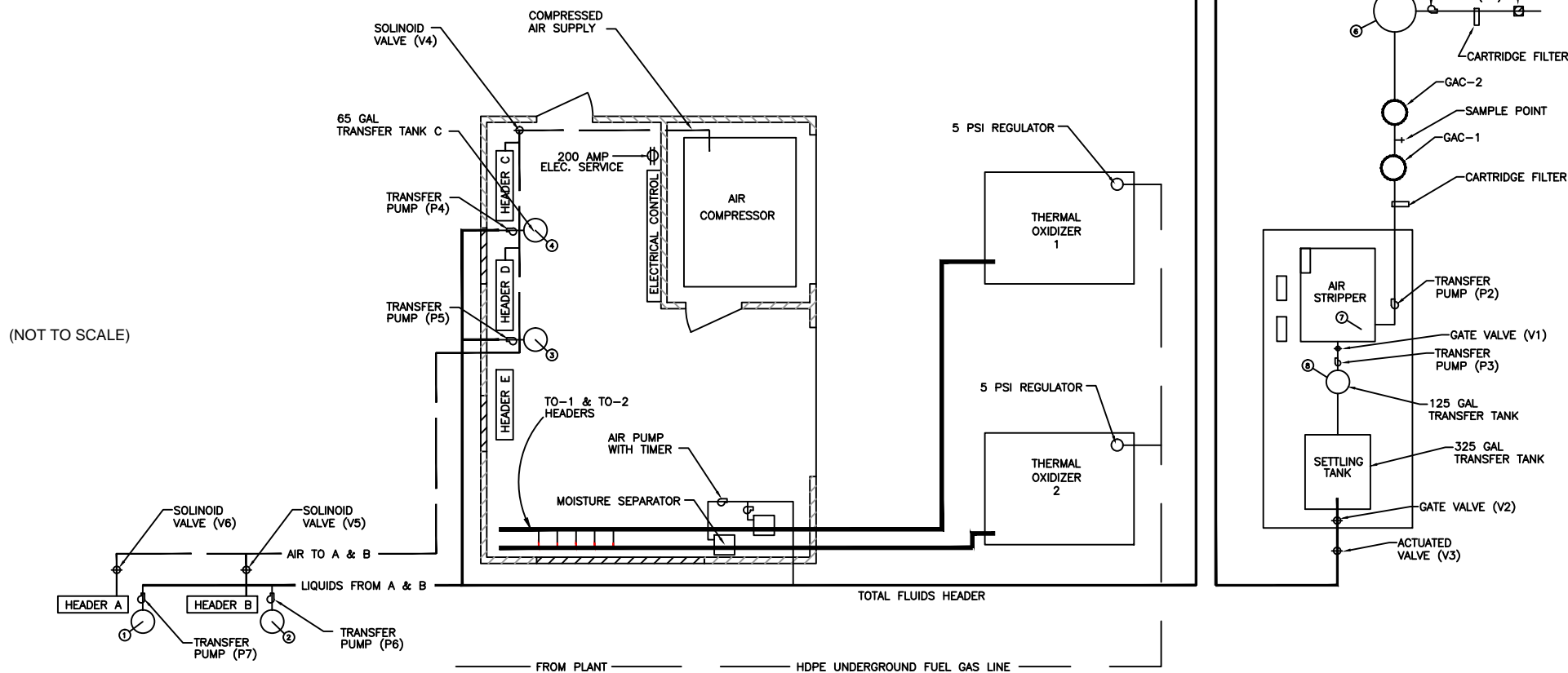
DRAWN: SSW	CHECKED: JDH	DATE: 03/15	FIGURE: 1-3
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# LEGEND FOR CONTROLS

- ① HH:V6-CLOSE; H:P7-ON; L:P7-OFF
- ② HH:V5-CLOSE; H:P6-ON; L:P6-OFF
- ③ HH:V4-CLOSE; H:P5-ON; L:P5-OFF
- ④ HH:V4-CLOSE; H:P4-ON; L:P4-OFF
- ⑤ HH:V4-CLOSE
- ⑥ HH:V3-CLOSE; H:P1-ON; L:P1-OFF
- ⑦ HH:P3-OFF & V3-CLOSE; H:P2-ON; L:P2-OFF
- ⑧ HH:V3-CLOSE; H:P3-ON; L:P3-OFF

# LEGEND FOR ALARM CONDITIONS

- ALARM #1 - UPON V4 CLOSING
- ALARM #2 - UPON V3 CLOSING



SOURCE: CYPRESS ENGINEERING SERVICES INC.

TRANSWESTERN PIPELINE COMPANY, LLC  
TRANSWESTERN COMPRESSOR STATION No. 9  
(ROSWELL COMPRESSOR STATION)  
ROSWELL, CHAVES COUNTY, NEW MEXICO

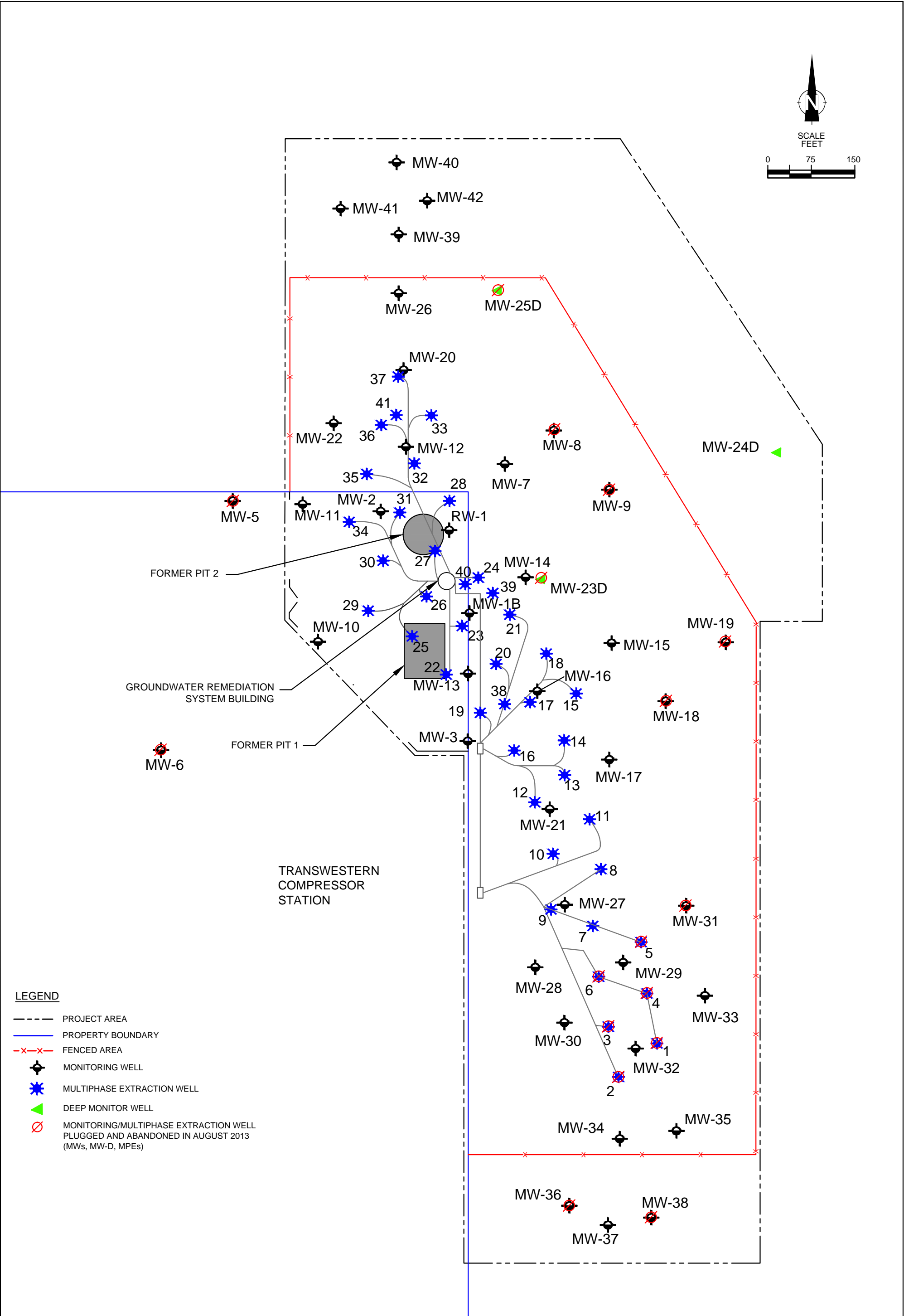
PROJ. NO: 02.20120037.00

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EarthCon Consultants Inc.

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Houston, TX 77014

EQUIPMENT COMPOUND DETAIL

DRAWN: LDG	CHECKED: GPF	DATE: 03/14	FIGURE: 1-4
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**Appendix A**  
**Operating and Maintenance Forms**



# ROSWELL COMPRESSOR STATION

# IRRIGATION SYSTEM DAILY / WEEKLY MAINTENANCE LOG

**DAILY**

[illegible]

## WEEKLY

Liquids Storage Tank		Replace Sock Filters (1-2 weeks as needed)	Inspect individual Sprinkler Heads
Date / Time / Inspector	Measured Level of PSH		

Additional Comments

# ROSWELL COMPRESSOR STATION

## AIR COMPRESSOR DAILY / WEEKLY MAINTENANCE LOG

### DAILY

Date / Time / Inspector	Maintain oil at 1/3 level in site tube	Check oil return line for oil flow	Drain Condensate separator	Oil Filter (psi)	Oil Separator (psi)

### WEEKLY

Date / Time / Inspector	Inspect air inlet filter element	Check belt tension	Check heat exchanger for cleanliness	Tighten loose fittings & fasteners	Drain air receiver	Drain condensate from oil sump	Check load / unload Cycle

Additional Comments



# ROSWELL COMPRESSOR STATION

## AIR COMPRESSOR SEMI-ANNUAL / ANNUAL MAINTENANCE LOG

### SEMI-ANNUAL

Date / Time / Inspector	Check motor/compressor V-belt alignment	Change Air Filter	Change Lubricant Filter

### ANNUAL

Date / Time / Inspector	Change Lubricant	Change Oil/Air Separator Element

Additional Comments

# ROSSELL COMPRESSOR STATION SVE SYSTEM INSPECTION REPORT

Date / Time / Inspector	Baker Furnace	Total Hours of Operation	Charts Changed (Y/N)	Set Point	Oxidizer Temp. (F)	Vapor Flow Rate (CFM)	Vacuum @ Inlet (in. H2O)	Water in KO Recovery Tank? (Volume)	SVE CIRCUIT OPEN	Water in SVE Cleanouts? (volume removed)
	EAST UNIT								Circuit A %	
	WEST UNIT								Circuit B %	
									Circuit C %	
									Circuit D %	Shallow %
Comments/ Observations	List wells turned off:									
	EAST UNIT								Circuit A %	
	WEST UNIT								Circuit B %	
									Circuit C %	
									Circuit D %	Shallow %
Comments/ Observations	List wells turned off:									
	EAST UNIT								Circuit A %	
	WEST UNIT								Circuit B %	
									Circuit C %	
									Circuit D %	Shallow %
Comments/ Observations	List wells turned off:									
	EAST UNIT								Circuit A %	
	WEST UNIT								Circuit B %	
									Circuit C %	
									Circuit D %	Shallow %
Comments/ Observations	List wells turned off:									
	EAST UNIT								Circuit A %	
	WEST UNIT								Circuit B %	
									Circuit C %	
									Circuit D %	Shallow %
Comments/ Observations	List wells turned off:									
	EAST UNIT								Circuit A %	
	WEST UNIT								Circuit B %	
									Circuit C %	
									Circuit D %	Shallow %
Comments/ Observations	List wells turned off:									

**ROSWELL COMPRESSOR STATION  
BAKER FURNACE SEMI-ANNUAL / ANNUAL MAINTENANCE LOG  
WEST UNIT (Serial No. 285); NMED Air Permit No. 1777**

**MONTHLY**

Date / Time / Inspector	Total Hours of Operation	Grease Bearings	Check Belts	Check Air Filter

**SEMI-ANNUAL**

Date / Time / Inspector	Total Hours of Operation	Replace Oil	Replace Air Filter	Replace Belts (as needed)

Additional Comments
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ROSWELL COMPRESSOR STATION  
 BAKER FURNACE SEMI-ANNUAL / ANNUAL MAINTENANCE LOG  
 EAST UNIT (Serial No. 286); NMED Air Permit No. 1776

MONTHLY

Date / Time / Inspector	Total Hours of Operation	Grease Bearings	Check Belts	Check Air Filter

SEMI-ANNUAL

Date / Time / Inspector	Total Hours of Operation	Replace Oil	Replace Air Filter	Replace Belts (as needed)

Additional Comments