El Paso Natural Gas Company, L.L.C.
a Kinder Morgan company

October 30, 2023

Federal Energy Regulatory Commission
888 First Street, N.E.
Washington, D.C. 20426

Attention: Ms. Kimberly D. Bose, Secretary

Re: El Paso Natural Gas Company, L.L.C.;
Docket No. CP23-546-000
Responses to Data Request - OEP/DG2E/Gas Branch 3

Dear Ms. Bose:

On October 20, 2023, El Paso Natural Gas Company, L.L.C. ("EPNG") received a data request ("Data Request") from the Office of Energy Projects ("OEP") for information pertaining to the proposed Line No. 1110 Loop Project. Accordingly, EPNG is herein filing with Federal Energy Regulatory Commission ("Commission") its responses to the Data Request.

Description of Proceeding

On September 22, 2023, EPNG submitted a Request for Prior Notice Authorization Pursuant to Blanket Certificate in the above-referenced docket seeking authorization to construct, install, operate and maintain an approximately two-mile 30-inch outside diameter pipeline loop extension, located in Hudspeth County, Texas as part of its Line No. 1110 Loop Project.

Description of Information Being Filing

EPNG is herein submitting its responses to the Data Request.

Filing Information

EPNG is e-Filing this letter and its responses with the Commission's Secretary in accordance with the Commission's Order No. 703, *Filing Via the Internet*, guidelines issued on November 15, 2007 in Docket No. RM07-16-000.

EPNG notes that certain information related to its response to Question No. 9, has sensitive information and is therefore being filed as non-public information. Pursuant to 18 C.F.R. § 388.112 of the Commission's regulations, EPNG has labeled this non-public information as "CUI//PRIV – Contains Privileged Information – Do Not

Release". EPNG respectfully requests that this information be accorded privileged treatment, pursuant to Section 388.112 of the Commission's regulations.

If you have any questions regarding this non-public information being filed herewith, please contact Mr. Francisco Tarin at 719-667-7517 or via email at Francisco_tarin@kindermorgan.com.

Respectfully submitted,

EL PASO NATURAL GAS COMPANY, L.L.C.

By /s/
Francisco Tarin
Director, Regulatory

Enclosures

Resource Report 1: General Project Description

1. Table 1.4-1 lists temporary land use during construction as less than the permanent land use during operations. Confirm that the total land use would be the combined total of temporary and permanent land use listed in the table.

Response:

EPNG has revised Table 1.4-1 as shown below. The total land use for the Project is 37.0 acres. This total land use encompasses both temporary and permanent acres.

Table 1.4-1.
Land Required for the Line No. 1110 Loop Project

Facility Component	Temporary(acres)	Permanent (acres)[a]
Right-of-Way	12.1	12.1
Temporary Workspace	6.3	0
Laydown/Storage Area	2.4	0
Pig Launcher	0.1	0.1
PAR #02[b]	16.1	16.1
TOTAL	**37.0**	**28.3**

[a] Includes areas to remain in use after construction (i.e., permanent pipeline ROW easement, access road and pig launcher).

[b] PAR #02 is a permanent access road currently being used by EPNG. Out of an abundance of caution, EPNG is attributing the permanent acres affected to the Project.

Respondent: Cody Mikeska
Title: Kinder Morgan, Permitting Project Manager
Phone: 713-420-6723

Resource Report 2: Water Use and Quality

2. Provide an estimated depth to groundwater within the Project workspaces.

Response:

Since groundwater was not encountered during geotechnical borings (drilled to 9.5 feet), groundwater levels are estimated using data from adjacent water wells. Adjacent water wells have been recorded as encountering water at depths ranging from 265 to 1280 feet below ground surface (Beyond Engineering and Testing 2023).

Reference:

Beyond Engineering and Testing. 2023. Geotechnical Report for EPNG Line No. 01110 Loop, Hudspeth County, Texas.

Respondent: Cody Mikeska
Title: Kinder Morgan, Permitting Project Manager
Phone: 713-420-6723

3. Provide an estimated volume of water that would be utilized for dust control.

Response:

Approximately 100,000 gallons of water may be required for dust control activities during construction.

Respondent: Cody Mikeska
Title: Kinder Morgan, Permitting Project Manager
Phone: 713-420-6723

4. For each ephemeral stream identified within the Project area associated with PAR #02, identify how streams would be crossed, by equipment, in accordance with FERC Procedures, if flowing water is present during active construction.

Response:

If flowing water is present in ephemeral streams along PAR #02, vehicle and equipment crossings will be performed primarily by installing wood matting across the ephemeral streams and, if necessary, utilize equipment bridging. Installation of either of these methods would be consistent with FERC Procedures. In instances where high velocity water flow is present, crossing devices such as mats may be anchored in place.

Respondent: Cody Mikeska
Title: Kinder Morgan, Permitting Project Manager
Phone: 713-420-6723

5. The Stormwater Pollutions Prevention Best Management Practice (BMP) maps in Appendix 2A identify about 14 potential waterbodies along PAR #02 that include unnamed tributaries, possible cross drains, and washes. Many of these features have additional erosion and sediment control devices and low water crossings annotated on the BMP maps.
    a. Provide a list of each additional waterbody located within the Project area associated with PAR #02. Describe each waterbody similar to how each ephemeral stream is described in Table 2.2-1.
    b. Describe what a low-water crossing is and how silt fence or fiber logs would be installed to prevent sediment from entering the waterbodies. Provide representative pictures or typical drawings.
    c. Identify any additional BMPs that may be necessary if water is flowing in these features during active construction.

Response:

a. EPNG is providing the table below listing each additional waterbody located within the Project area associated with PAR #02.

Additional Waterbodies Associated with PAR #02

Location	Waterbody ID (Coordinates)	Waterbody Name	Flow Regime	Acreage within the Project Footprint	State Water Quality Designation / Fishery Classification	Anticipated Crossing Method if water is present
PAR #02	Isolated Wash (31.68409381, -105.66460149)	N/A	Ephemeral	<0.01	None	Matting and/or bridging.
PAR #02	Isolated Wash (31.68487249, -105.66084483)	N/A	Ephemeral	<0.01	None	Matting and/or bridging.
PAR #02	Isolated Wash 31.68665723, -105.6526386)	N/A	Ephemeral	<0.01	None	Matting and/or bridging.
PAR #02	Number 9 Draw 31.70468871, -105.6521191)	Number 9 Draw	Ephemeral	<0.01	None	Matting and/or bridging.
PAR #02	Unnamed Tributary (31.71784153, -105.65352918)	N/A	Ephemeral	<0.01	None	Matting and/or bridging.
PAR #02	Unnamed Tributary (31.729569, -105.64072959)	N/A	Ephemeral	<0.01	None	Matting and/or bridging.

Additional Waterbodies Associated with PAR #02						
Location	**Waterbody ID (Coordinates)**	**Waterbody Name**	**Flow Regime**	**Acreage within the Project Footprint**	**State Water Quality Designation / Fishery Classification**	**Anticipated Crossing Method if water is present**
PAR #02	Unnamed Tributary (31.73695, -105.63100935)	N/A	Ephemeral	<0.01	None	Matting and/or bridging.
PAR #02	Unnamed Tributary (31.76443983, -105.6193684)	N/A	Ephemeral	<0.01	None	Matting and/or bridging.
PAR #02	Unnamed Tributary (31.76518443, -105.61911001)	N/A	Ephemeral	<0.01	None	Matting and/or bridging.
PAR #02	Unnamed Tributary (31.7710018, -105.62072437)	N/A	Ephemeral	<0.01	None	Matting and/or bridging.
			TOTAL ACREAGE	**0.02**		

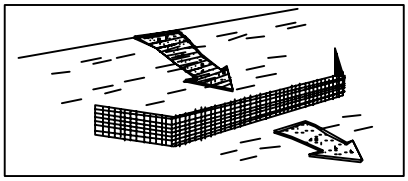
b. In terms of the proposed Project, a low-water crossing is the portion of the existing access road (PAR #02) that traverses over an ephemeral erosional feature or other waterbody, and typically sits above the highest water level. These sections of the access road stay dry during typical flow regimes but can serve as a floodway in rare instances of high-volume rainfall (i.e., flash flooding).

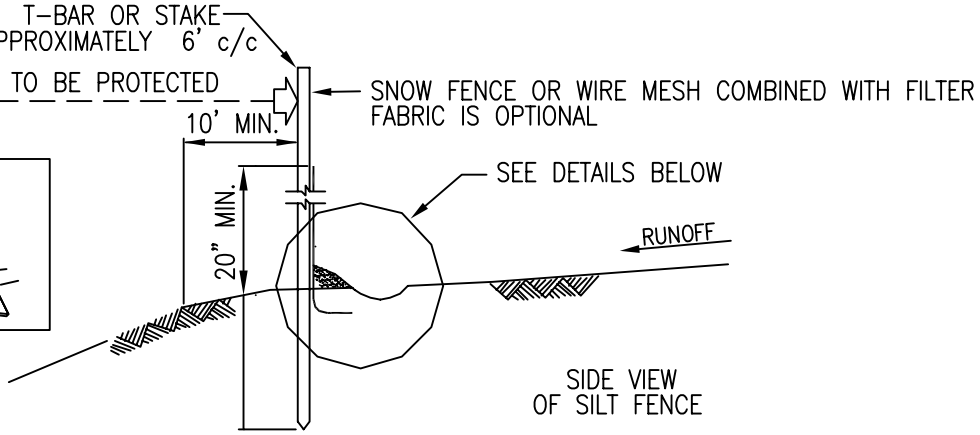
Silt fence fiber logs, and/or hay bales will be installed at the perimeter or edge and downslope of the access road near low-water crossings and field-mapped waterbodies. If water is flowing, these devices will be reinforced by double staked hay bale or with 4”x4” hog wire backing. Methods for silt fence and fiber log installation are outlined in Section 5.3.1 of the Project’s Storm Water Pollution Prevention Plan. EPNG is providing behind this response, typical drawings illustrating how low-water crossings along PAR #02 will be addressed.

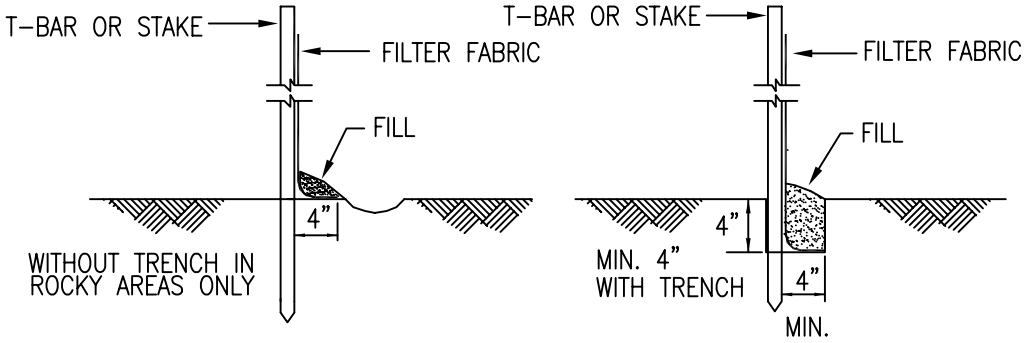
c. Additional BMPs that may be utilized during water flows along PAR #02 will include:
- Placing matting materials over the roadway to ensure no rutting occurs.
- In high-velocity flows, anchors will be used to secure matting materials in place.
- If flash-flooding occurs, construction vehicles/equipment will not cross low-water crossings until the Environmental Inspector determines it is physically safe to do so and will not cause excessive sedimentation or damage to existing erosion control devices.

In the event of perceptible flow, all FERC Procedure requirements will be complied with.

Respondent: Cody Mikeska
Title: Kinder Morgan, Permitting Project Manager
Phone: 713-420-6723







NOTES:

1. GENERALLY WHEN A LONG SEDIMENT BARRIER IS REQUIRED, SILT FENCE WILL BE UTILIZED RATHER THAN STRAW BALES AT:
   - THE BASE OF ALL SLOPES ABOVE ROADS, SPRINGS, WETLANDS, IMPOUNDMENTS AND PERENNIAL AND INTERMITTENT STREAMS.
   - THE DOWN SLOPE RIGHT-OF-WAY EDGE WHERE ANY OF THE ABOVE MENTIONED LOCATIONS ARE ADJACENT TO THE RIGHT-OF-WAY.
   - BETWEEN TOPSOIL/SPOIL STOCKPILES AND PERENNIAL OR INTERMITTENT STREAMS OR WETLANDS WHERE BUFFER ZONE REQUIREMENTS CANNOT BE MET.
   - ALONG R.O.W. BOUNDARIES OF WETLAND CONSTRUCTION.
   - AS SPECIFIED IN THE SPILL PREVENTION, CONTAINMENT, AND COUNTERMEASURE PLAN.
   - AS DIRECTED BY THE COMPANY'S REPRESENTATIVE.
2. THE SILT FENCE SHALL BE CONSTRUCTED AS FOLLOWS:
   - FABRIC USED FOR THE SILT FENCE SHALL BE A "STANDARD STRENGTH" GEOTEXTILE, SUCH AS MIRAFI 100X OR AN APPROVED EQUIVALENT.
   - THE FABRIC SHALL BE CUT FROM A CONTINUOUS FABRIC ROLL.
   - THE HEIGHT OF THE FENCE SHALL NOT EXCEED 24".
   - SPLICES SHALL ONLY BE DONE AT POSTS AND SHALL CONSIST OF A MINIMUM OF 6" OF OVERLAP WITH BOTH ENDS SECURED TO THE POST.
   - POSTS SHALL BE POSITIONED A MAXIMUM OF 10' APART.
   - POSTS SHALL CONSIST OF 2"X2" WOODEN STAKES, OR EQUIVALENT, OF SUFFICIENT LENGTH TO EXTEND A MINIMUM OF 12" INTO THE GROUND.
   - FABRIC SHALL BE STAPLED OR WIRED TO POSTS A MAXIMUM OF EVERY 9".
3. THE SILT FENCE SHALL BE INSTALLED AS SPECIFIED BY THE MANUFACTURER OR AS FOLLOWS:
   - A TRENCH, 4" WIDE AND 4" DEEP, SHALL BE EXCAVATED ALONG THE CONTOUR. THE POST SHALL BE DRIVEN INTO THE BOTTOM OF THE TRENCH ON THE DOWNSTREAM SIDE OF THE FILTER FABRIC. THE TRENCH SHALL BE BACK FILLED AND COMPACTED, ENSURING 4" OF FENCE IS BURIED WITHIN THE TRENCH.
   - IN AREAS WHERE THE TERRAIN IS TOO ROCKY FOR TRENCHING, A 4" GROUND FLAP WITH ROCK FILL TO HOLD IT IN PLACE SHALL BE USED.

DRAWING DEPICTED IS SUPERSEDED BY WRITTEN STANDARD, SCOPE OF WORK OR LINE LIST.

REVISIONS

NO.	DATE	DESCRIPTION	BY	CHKD.	APPR.
1	02/27/04	ISSUED FOR REVIEW	RB	CM	
2	07/13/04	REVISED PER CLIENT COMMENT	RB	CM	
3	07/01/05	ENG REWRITE RELEASE	WS		

KINDER MORGAN INC

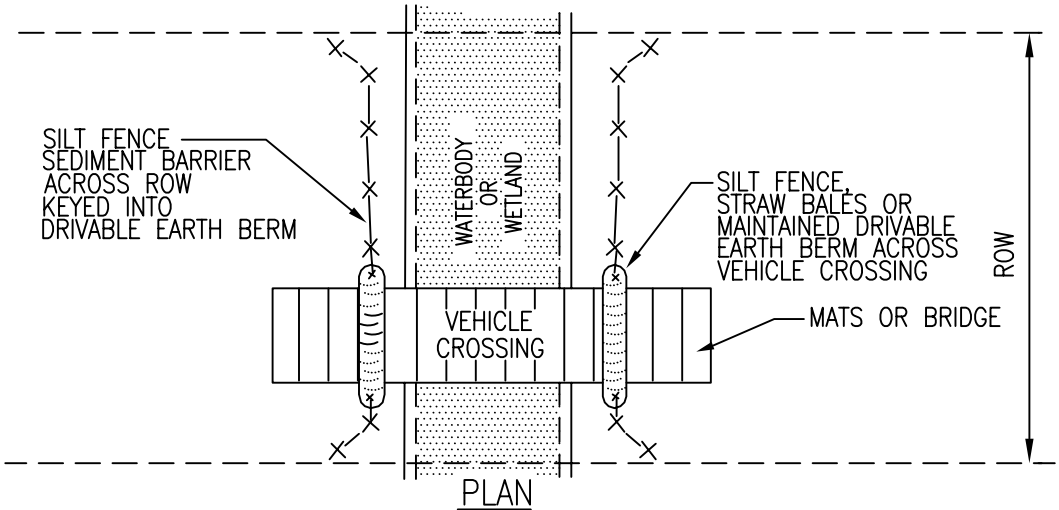
TYPICAL SILT FENCE SEDIMENT BARRIER
EROSION CONTROL

DATE: 07/01/05		APPROVED BY:
SCALE: N.T.S.	CST-P-1260-A180.1	SH. 1 OF 2

NOTES:

- SILT FENCES PLACED AT THE TOE OF A SLOPE SHALL BE SET AT LEAST 6' DOWN GRADIENT FROM THE TOE OF THE SLOPE (WHERE POSSIBLE) IN ORDER TO INCREASE PONDING.
- SILT FENCE PLACED AT THE TOP OF SLOPES SHALL BE AT LEAST 10' BELOW THE CREST.
- SILT FENCES PLACED AT THE BASE OF SPOIL OR TOPSOIL STOCKPILES SHALL EXTEND AROUND THE BASE OF THE PILES IN ORDER TO CONTAIN ANY SEDIMENTS AND/OR PREVENT FLOW-AROUND.
- WHEN INSTALLING SILT FENCES IN DRAINAGES, EXTEND THE FENCE UP THE CHANNEL BANKS AND TURN BOTH ENDS AT A SLIGHT ANGLE TOWARDS THE CENTER OF THE RIGHT-OF-WAY.
- UPON THE REQUEST OF THE COMPANY'S INSPECTOR, SNOW FENCE, STRAW BALE OR WIRE MESH SHALL BE USED IN CONJUNCTION WITH THE SILT FENCE. IF WIRE MESH OR SNOW FENCE IS USED, THE WIRE SHALL BE ATTACHED TO THE POSTS USING WIRE TIES OR HEAVY DUTY STAPLES PRIOR TO INSTALLATION OF THE FABRIC. THE WIRE OR SNOW FENCE SHALL BE "KEYED" INTO THE TRENCH AT LEAST 2" AND EXTEND UP THE POSTS TO THE TOP OF THE FABRIC.
- IF REQUIRED, A 15' GAP SHALL BE LEFT IN THE SILT FENCE TO ACCOMMODATE TRAFFIC ON TEMPORARY CONSTRUCTION ROADS. HOWEVER, A SECTION OF SILT FENCE OR A DRIVABLE EARTH BERM TIED INTO ADJACENT SILT FENCE SHALL BE USED TO CLOSE THE GAP AT THE END OF EACH DAY. THE SILT FENCE USED TO CLOSE THE GAP MUST OVERLAP THE ENDS OF THE PERMANENT SILT FENCE FOR A MINIMUM OF 24", AND SHALL BE "KEYED" INTO THE GROUND THE SAME AS THE FILTER FABRIC ON EITHER SIDE OF THE GAP.

4. SILT FENCES SHALL BE CHECKED AND MAINTAINED ON A REGULAR BASIS. THE DEPTH OF THE ANCHOR TRENCH SHALL BE ADJUSTED IF UNDERMINED. SHOULD INSPECTION REVEAL SEDIMENT LOADING AT OR NEAR 40% CAPACITY, THE SEDIMENT SHALL BE REMOVED AND PLACED IN AN AREA WHERE IT SHALL NOT REENTER THE SILT FENCE IMPOUNDMENT OR A WATERWAY.
5. SILT FENCE SHALL BE REMOVED ONLY AS DIRECTED BY THE COMPANY'S REPRESENTATIVE.
6. EROSION CONTROL STRUCTURES SHALL BE INSPECTED DAILY IN AREAS OF ACTIVE CONSTRUCTION. STRUCTURES SHALL BE INSPECTED WEEKLY AT INACTIVE CONSTRUCTION AREAS AND WITHIN 24 HOURS OF EACH 0.5 INCH RAINFALL EVENT. STRUCTURES SHALL BE REPAIRED AS NECESSARY.



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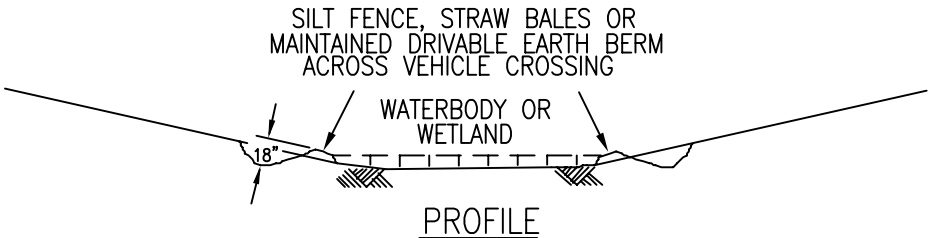

PROFILE

DRIVABLE BERM NOTES:

1. A MAINTAINED DRIVABLE EARTH BERM MAY BE INSTALLED ACROSS THE VEHICLE CROSSING IN LIEU OF SILT FENCE OR STRAW BALES.
2. BERM MUST BE TIED INTO SILT FENCE.
3. BERM MUST BE MAINTAINED TO ENSURE SEDIMENT TRAPPING CAPACITY.

DRAWING DEPICTED IS SUPERSEDED BY WRITTEN STANDARD, SCOPE OF WORK OR LINE LIST.

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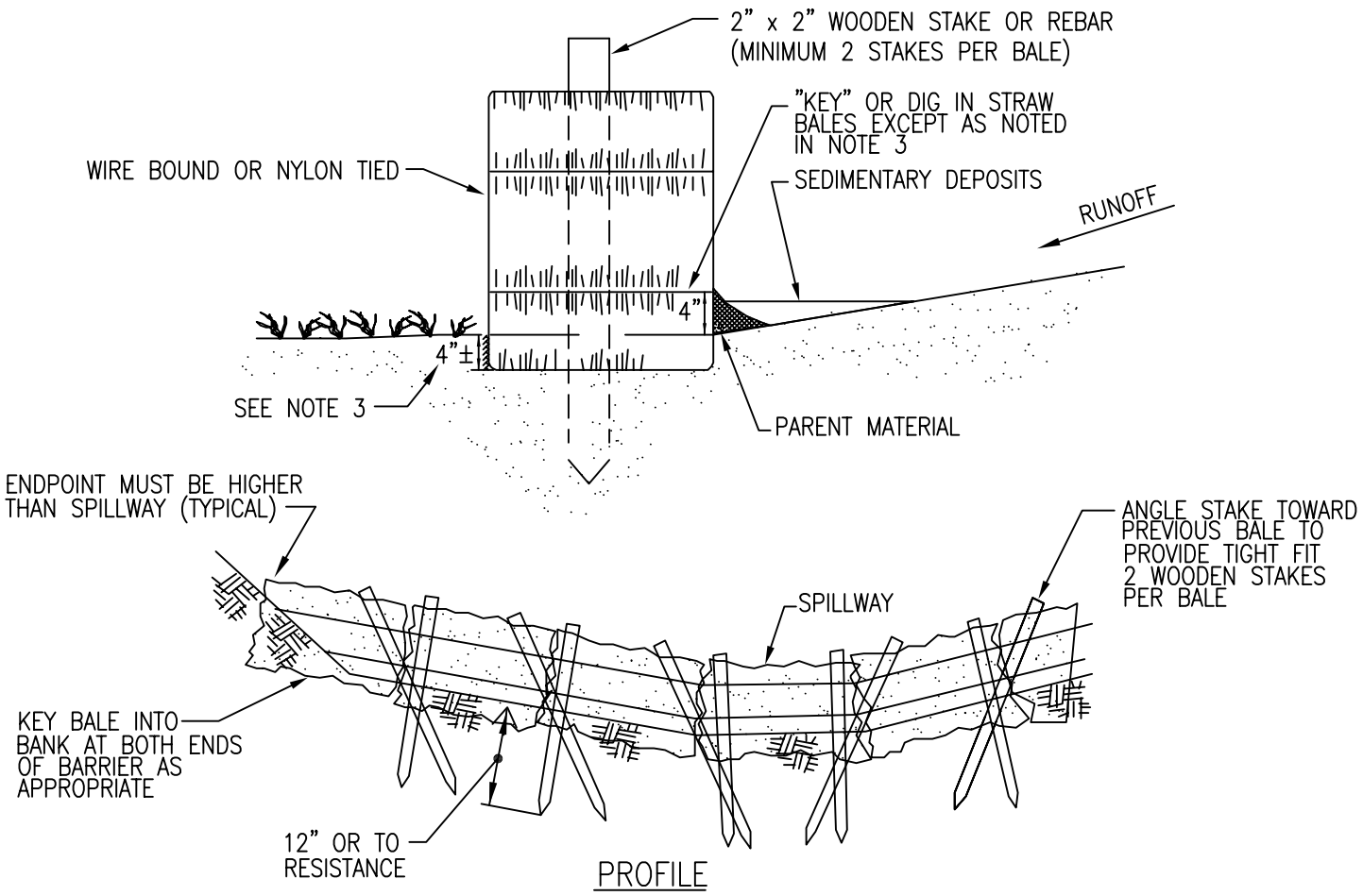
KINDER MORGAN INC

TYPICAL SILT FENCE SEDIMENT BARRIER
EROSION CONTROL

DATE: 07/01/05		APPROVED BY:
SCALE: N.T.S.	CST-P-1260-A180.2	SH. 2 OF 2



PROFILE

NOTES:

1. STRAW BALE SEDIMENT BARRIERS SHALL BE INSTALLED AT THE FOLLOWING LOCATIONS:
   - THE BASE OF ALL SLOPES ABOVE ROADS, SPRINGS, WETLANDS, IMPOUNDMENTS AND FLOWING STREAMS.
   - THE DOWNSLOPE RIGHT-OF-WAY EDGE WHERE ANY OF THE ABOVE-MENTIONED LOCATIONS ARE ADJACENT TO THE RIGHT-OF-WAY.
   - BETWEEN TOPSOIL/SPOIL STOCKPILES AND STREAMS OR WETLANDS AS NEEDED.
   - ALONG R.O.W. BOUNDARIES IN WETLAND CONSTRUCTION.
   - AS SPECIFIED IN THE SPILL PREVENTION, CONTAINMENT, AND COUNTERMEASURE PLAN.
   - AS DIRECTED BY THE COMPANY'S REPRESENTATIVE.
2. STRAW BALE SEDIMENT BARRIERS SHALL CONSIST OF A ROW OF STRAW BALES, PLACED ON THE FIBER-CUT EDGE (TIES NOT IN CONTACT WITH THE GROUND). BALES SHALL BE TIGHTLY ABUTTED TO ONE ANOTHER. THE BARRIER SHALL BE ONE BALE HIGH. ONLY CERTIFIED "NOXIOUS WEED-FREE" STRAW SHALL BE USED WHENEVER POSSIBLE.
3. ENTRENCH ("KEY") STRAW BALES INTO THE GROUND TO A DEPTH OF 4" EXCEPT IN FROZEN, SATURATED, OR EXTREMELY ROCKY SOILS. PLACE PARENT MATERIAL ON UPSTREAM SIDE OF STRAW BALES TO PREVENT UNDERMINING.
4. WALK ON STRAW BALES TO INSURE ADEQUATE BALE-TO-SOIL CONTACT.
5. ANCHOR STRAW BALES SECURELY IN PLACE WITH TWO WOODEN OR STEEL REBAR STAKES DRIVEN THROUGH THE TOPS OF THE BALES. THE STAKES SHALL PENETRATE THE GROUND A DISTANCE OF 12" UNLESS ROCK OR AN IMPERMEABLE LAYER IS ENCOUNTERED:
   - THE FIRST, CENTER AND END BALES OF THE BARRIER SHALL HAVE STAKES DRIVEN VERTICALLY THROUGH THE BALE.
   - BALES, OTHER THAN THOSE LOCATED AT THE ENDS OR CENTER OF THE BARRIER, SHALL HAVE THE FIRST STAKE DRIVEN THROUGH THE TOP OF THE BALE AT AN ANGLE SO THAT THE STAKE PASSES THROUGH THE PREVIOUSLY PLACED BALE, IN ORDER TO PROVIDE TIGHT CONTACT BETWEEN BALES. THE SECOND STAKE SHALL BE DRIVEN VERTICALLY THROUGH THE TOP OF THE BALE.

DRAWING DEPICTED IS SUPERSEDED BY WRITTEN STANDARD, SCOPE OF WORK OR LINE LIST.

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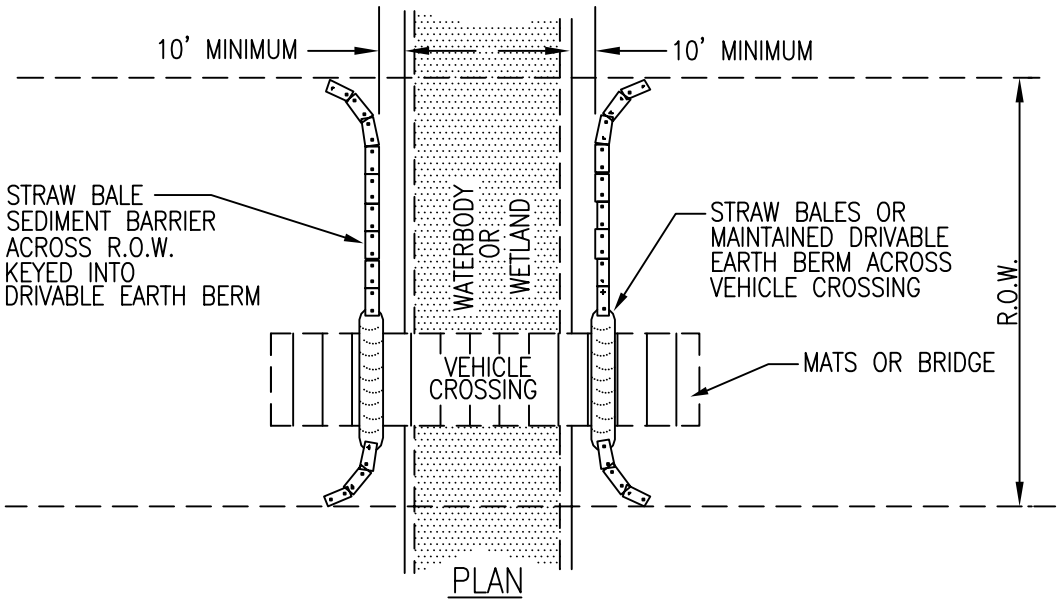
KINDER MORGAN INC

TYPICAL STRAW BALE SEDIMENT BARRIER
EROSION CONTROL

DATE: 07/01/05		APPROVED BY:
SCALE: N.T.S.	CST-P-1260-A190.1	SH. 1 OF 2

NOTES:

6. PLACE STRAW BALES SO THEY ARE EFFECTIVE BUT DO NOT HINDER CONSTRUCTION. IF NECESSARY A 15' GAP IN STRAW BALE BARRIERS SHALL BE PROVIDED AS NEEDED TO ACCOMMODATE TRAFFIC ON TEMPORARY CONSTRUCTION ROADS. THE GAP SHALL BE CLOSED AT THE END OF EACH WORK DAY, USING STRAW BALE BARRIERS, OR A DRIVABLE EARTH BERM TIED INTO ADJACENT STRAW BALES. THE BALES USED TO CLOSE THE GAP SHALL BE PLACED ON THE UPHILL SIDE OF THE STRAW BALE BARRIER, THE END BALES OF THE GAP SEGMENT SHALL OVERLAP A MINIMUM OF 12".
7. MONITOR FOR UNDERMINING OR FLOW-AROUND. INSPECT BALE POSITION TO ASSURE THAT THEY REMAIN CLOSE TOGETHER. MAINTAIN STRAW BALE BARRIERS BY REPLACING DAMAGED BALES AND REMOVING SEDIMENT LOAD. WHEN SEDIMENT LOAD IS GREATER THAN 60% BEHIND THE BARRIER, SEDIMENT SHALL BE REMOVED AND PLACED IN AN AREA WHERE IT SHALL NOT REENTER THE BARRIER OR A WATERWAY. IF SEDIMENT BEHIND STRAW BALE BARRIERS CANNOT BE REMOVED, A SECOND ROW OF BALES SHALL BE INSTALLED UPSLOPE OF THE BARRIER.
8. WHERE STRAW BALES AND SILT FENCE ARE INSTALLED AS A UNIT, THE STRAW BALES SHALL BE INSTALLED ON THE DOWN SLOPE SIDE OF THE SILT FENCE.
9. EROSION CONTROL STRUCTURES SHALL BE INSPECTED DAILY IN AREAS OF ACTIVE CONSTRUCTION. STRUCTURES SHALL BE INSPECTED WEEKLY AT INACTIVE CONSTRUCTION AREAS AND WITHIN 24 HOURS OF EACH 0.5 INCH RAINFALL EVENT. STRUCTURES SHALL BE REPAIRED AS NECESSARY.
10. STRAW BALE BARRIERS SHALL BE REMOVED ONLY AS DIRECTED BY THE COMPANY'S REPRESENTATIVE.



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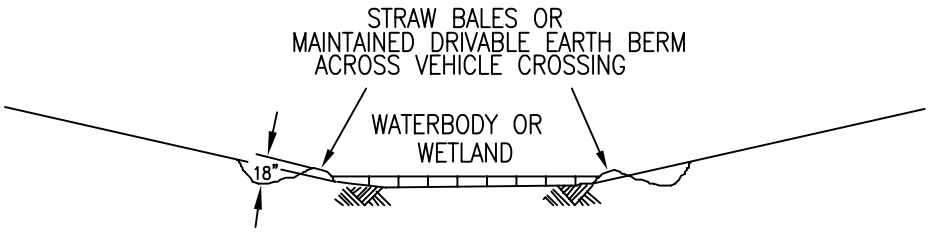

PROFILE

DRIVABLE BERM NOTES:

1. A MAINTAINED DRIVABLE EARTH BERM MAY BE INSTALLED ACROSS VEHICLE CROSSINGS IN LIEU OF STRAW BALES.
2. BERM MUST BE TIED INTO STRAW BALES.
3. BERM MUST BE MAINTAINED TO ENSURE SEDIMENT TRAPPING CAPACITY.

DRAWING DEPICTED IS SUPERSEDED BY WRITTEN STANDARD, SCOPE OF WORK OR LINE LIST.

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KINDER MORGAN INC

TYPICAL STRAW BALE SEDIMENT BARRIER EROSION CONTROL

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6. Section 3.1 states that refueling areas and equipment staging and storage would not be located near any of the ephemeral streams. The SPCCP indicates that no refueling or storage of fuels or lubricating oils would be stored within 100 feet of dry washes/ephemeral streams.
    a. Confirm that no refueling, or storage of fuels or lubrication oils would occur within 100 feet of any mapped tributaries.
    b. Confirm that equipment would not be staged or stored within 100 feet of the mapped tributaries.

Response:

a. No fuel or lubrication oil storage would occur within 100 feet of any mapped tributaries.
b. No equipment will be staged or stored within 100 feet of mapped tributaries.

Respondent: Cody Mikeska
Title: Kinder Morgan, Permitting Project Manager
Phone: 713-420-6723

Resource Report 3: Fish, Wildlife, and Vegetation

7. Section 3.2.4 indicates that impacts on scrub shrub within the proposed right-of-way would be permanent because the 50-foot-wide operations easement would be maintained. Indicate the frequency of vegetative maintenance across the entire right-of-way. Alternately, confirm that vegetative maintenance would be conducted in accordance with FERC's Plan.

Response:

The frequency of vegetative maintenance across the entire 50-foot-wide permanent right-of-way will be no more than once every 3 years.

Respondent: Cody Mikeska
Title: Kinder Morgan, Permitting Project Manager
Phone: 713-420-6723

Resource Report 4: Cultural Resources

8. Within Contact List for the Discovery Plan (Appendix 4B: Attachment C), include the FERC contact as Archaeologist Allison King (202-502-8847).

Response:

EPNG is attaching to this response, a revised Unanticipated Discovery Plan that has been updated to include Allison King as the FERC contact Archaeologist (202-502-8847).

Respondent: Cody Mikeska
Title: Kinder Morgan, Permitting Project Manager
Phone: 713-420-6723

Unanticipated Discoveries Plan for the Line No. 1110 Loop Project within University Lands, Hudspeth County

Prepared for

El Paso Natural Gas Company, L.L.C.
a Kinder Morgan Company

Prepared by

SWCA Environmental Consultants

Revised October 2023

CULTURAL RESOURCES UNANTICIPATED DISCOVERIES PLAN FOR THE LINE NO. 1110 LOOP PROJECT WITHIN UNIVERSITY LANDS, HUDSPETH COUNTY

Prepared for:

El Paso Natural Gas Company, L.L.C.
a Kinder Morgan Company
1001 Louisiana Street
Houston, Texas 77002

Prepared by

Martin Handly, M.A., RPA
Cultural Resources Program Director - Central Texas

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Austin, Texas, 78749
www.swca.com

Revised October 2023

CONTENTS

ATTACHMENTS

INTRODUCTION

El Paso Natural Gas Company, L.L.C. ("EPNG") is seeking authorization from the Federal Energy Regulatory Commission ("Commission") under the prior notice procedures of the Commission's blanket certificate regulations (Sections 157.205, 157.208, and 157.210 of the Commission's regulations, 18 Code of Federal Regulations ("C.F.R."), §§ 157.205, 157.208, and 157.210 (2023)), for approval of the Line No. 1110 Loop Project ("Project"), located in Hudspeth County, Texas. Line No. 1110, along with Line Nos. 1100 and 1103, are part of EPNG's Line 1100 System which extends from the Permian Basin in Texas to the California/Arizona border. As part of the Project, EPNG is proposing to extend Line No. 1110 approximately two miles with a 30-inch outside diameter ("O.D.") pipeline between the existing EPNG Cornudas and Hueco Compressor Stations. This loop extension is designed to alleviate a capacity constraint that exists between these two stations and generate approximately 20,021 Dekatherms ("Dth") per day of additional firm transportation capacity. As a result, EPNG will be able to utilize stranded capacity that exists west of the Hueco Compressor Station to deliver the 20,021 Dth per day of capacity to the California/Arizona border and to points in between. Following receipt of all necessary regulatory approvals, construction of the Project is anticipated to begin in December 2023. Construction is expected to be completed in February 2024.

Cultural resources investigations of the Project will be completed in compliance with Section 7(c) of the Natural Gas Act ("NGA") and the Federal Energy Regulatory Commission's ("FERC" or "Commission") certificate application requirements in accordance with 18 Code of Federal Regulations ("CFR") 380.12, 380.14, and Appendix A to Part 380; application requirements for a U.S. Army Corps of Engineers ("USACE") Section 404 permit in accordance with 33 CFR 325, Appendix C (Processing Department of Army Permits: Procedures for the Protection of Historic Properties; Final Rule 1990; with current Interim Guidance Documents dated April 25, 2005 and January 31, 2007); and Section 106 of the National Historic Preservation Act ("NHPA") (54 United States Code ["USC"] 4300101 *et seq.*) and its implementing regulations (36 CFR 800). In addition, portions of the project cross lands owned or managed by the University of Texas (University Lands) in Hudspeth County, Texas. As the public lands are owned or managed by political subdivisions of the State of Texas, a Texas Antiquities Permit will also be required in accordance with the Antiquities Code of Texas (Texas Natural Resource Code, Title 9, Chapter 191) and accompanying Rules of Practice and Procedure (Texas Administrative Code, Title 13, Chapter 26).

SWCA Environmental Consultants ("SWCA") has prepared this *Unanticipated Discoveries Plan for the Line No. 1110 Loop Project Within University Lands, Hudspeth County* ("UDP") for use during construction of the Project. The UDP documents the procedures to be implemented in the event that cultural resources or unmarked graves are discovered during construction.

PROCEDURES FOR ADDRESSING CULTURAL RESOURCE DISCOVERIES

The following procedures will be initiated in the event unanticipated cultural resources are discovered. A flow chart presenting an abbreviated version of the procedures is provided in Attachment A. If a discovery is encountered, the construction activity that resulted in the exposure of the discovery will be immediately halted and the Construction Manager (CM) and Environmental Inspector (EI) will be notified. The CM will in turn notify the appropriate project manager who will notify FERC, UT Lands, and the Texas Historical Commission / State Historic Preservation Offices ("THC/SHPO"), as applicable.

The CM will suspend ground-disturbing activities adjacent to the discovery. Cessation of ground-disturbing activity will encompass a sufficient area to protect the discovery and provide a buffer zone for adequate

and safe investigation of the discovery and any associated features or artifacts. A recommended guideline for the buffer zone is at least a 100-foot radius around the discovery, but its size can be adjusted to protect the discovery adequately without unnecessary hindrance to construction. Visual barriers, such as temporary fencing, will be placed around the discovery area to protect it from further disturbance. Vehicle traffic within the vicinity may need to be limited or halted until the discovery is inspected.

The project manager will then contact an archaeologist qualified under the Secretary of the Interior's *Professional Qualification Standards* (36 CFR 61) to review the find in the field. During the review phase, continued suspension of all work and vehicle traffic in the buffered area is required. If the archaeologist determines that the discovery is non-cultural, the project manager will be notified, and the halted construction activity can resume. If the discovery is deemed cultural, the project manager will notify the CM to continue to suspend work within the buffered discovery area and will notify the FERC, UT Lands, and THC/SHPO.

An archaeological investigation will be conducted according to appropriate state guidelines to identify the nature and extent of the discovery and any associated activity area(s) or other features, if present. Collection of a discovery will occur when appropriate. In consultation with FERC, UT Lands, and the THC/SHPO, and appropriate Tribal groups, the potential significance of the discovery will be determined, and an appropriate plan of action will be developed. Archaeologists will conduct the appropriate field site delineation within the project area, followed by the registration of the site with the THC/SHPO. Appropriate state site forms will be filled out for each site discovered during the investigations. A detailed plan map of each site will be produced, and site locations will be plotted on U.S. Geological Survey ("USGS") 7.5-minute topographic maps and relevant project maps. Archaeologists will utilize GPS units with submeter accuracy to map sites and spatially relate them to the project area. These site polygon data will be provided to the client for accurate plotting and use in their GIS systems and planning.

Unless the archaeologist determines that the discovery is non-cultural, construction may not resume in the area of the discovery until approval has been obtained from the FERC, UT Lands, and THC/SHPO.

SPECIAL PROCEDURES FOR DISCOVERIES OF HUMAN REMAINS

The following procedures will be initiated in the event human remains are discovered. Should human remains or associated funerary objects be encountered during construction of the Project, they will be treated with respect and dignity. All work will be immediately halted at the general location of the discovery. The construction personnel involved in the discovery will immediately notify the CM. This location will be immediately secured, including a buffer zone of at least a 100-foot-radius from the discovery. Any human remains will be carefully covered with a tarp. Construction personnel and vehicles will promptly vacate the buffer zone. Vehicle traffic within the buffer zone will be limited to that necessary to remove vehicles and equipment from the buffer zone. Care will be taken to prevent any disturbance of the potential human remains during removal of vehicles and equipment. Until appropriate consultation has occurred, the discovery shall remain protected from any disturbance, such that no human remains or associated artifacts are touched, moved, or collected.

The CM will immediately notify the project manager who will then notify the on-call archaeologist, FERC, UT Lands, and THC/SHPO. State burial laws will be followed, and notifications will be made to local law enforcement and the county coroner, as soon as possible, but at least within 24 hours of the discovery. If a qualified archaeologist with previous training and experience with the discovery of human remains is available, they may assist in making a visual assessment of the remains to convey to the appropriate agencies; however, no further physical investigation/disturbance of the human remains is permitted. Measurements of the position, location, depth, orientation, and size of remains are appropriate, as long as the human remains stay *in situ*. Determination of skeletal sex and age are also appropriate, along with

completing sketches of the remains. No soil samples may be taken of the grave soil. **Human remains should not be photographed.**

The coroner and local law enforcement will make the official ruling on the nature of the human remains, being either forensic (generally describing human remains requiring law enforcement/coroner custody) or archaeological (generally describing historic or prehistoric human remains, not requiring law enforcement investigation/custody).

- If the human remains are deemed forensic, the county coroner will retain custody of the human remains and determine the plan of action.

- If the human remains are deemed to be archaeological (historic or prehistoric), the FERC, UT Lands, and THC/SHPO will determine the subsequent plan of action depending upon the cultural affiliation of the burial after consultation with appropriate parties.

    - If the human remains are determined to be non-Native American, the human remains will be left in place and protected from any form of disturbance until a plan for their protection or removal can be developed following consultation with FERC, UT Lands, and THC/SHPO.

    - The subsequent treatment of the discovery will comply with regulations in the Texas statutes governing cemeteries (Chapters 711–715 of the Texas Health and Safety Code; Title 13, Part 2, Chapter 22 of the Texas Administrative Code).

    - If the human remains are determined to be Native American or of unknown cultural affiliation, the remains will be left in place and protected from any form of disturbance until a plan for their protection or removal can be developed. In accordance with state burial laws and to ensure adherence to the government-to-government consultation relationship, the Applicants will assist the FERC in contacting the appropriate Tribe(s) to determine the subsequent plan of action.

    - Until consultation is complete and a removal strategy is defined, the human remains will remain in place (in the ground), protected from natural forces and from vandalism and looting. Construction in the area of discovery may resume only upon approval from the appropriate point of contact (e.g., FERC, UT Lands, and THC/SHPO, law enforcement, or county coroner).

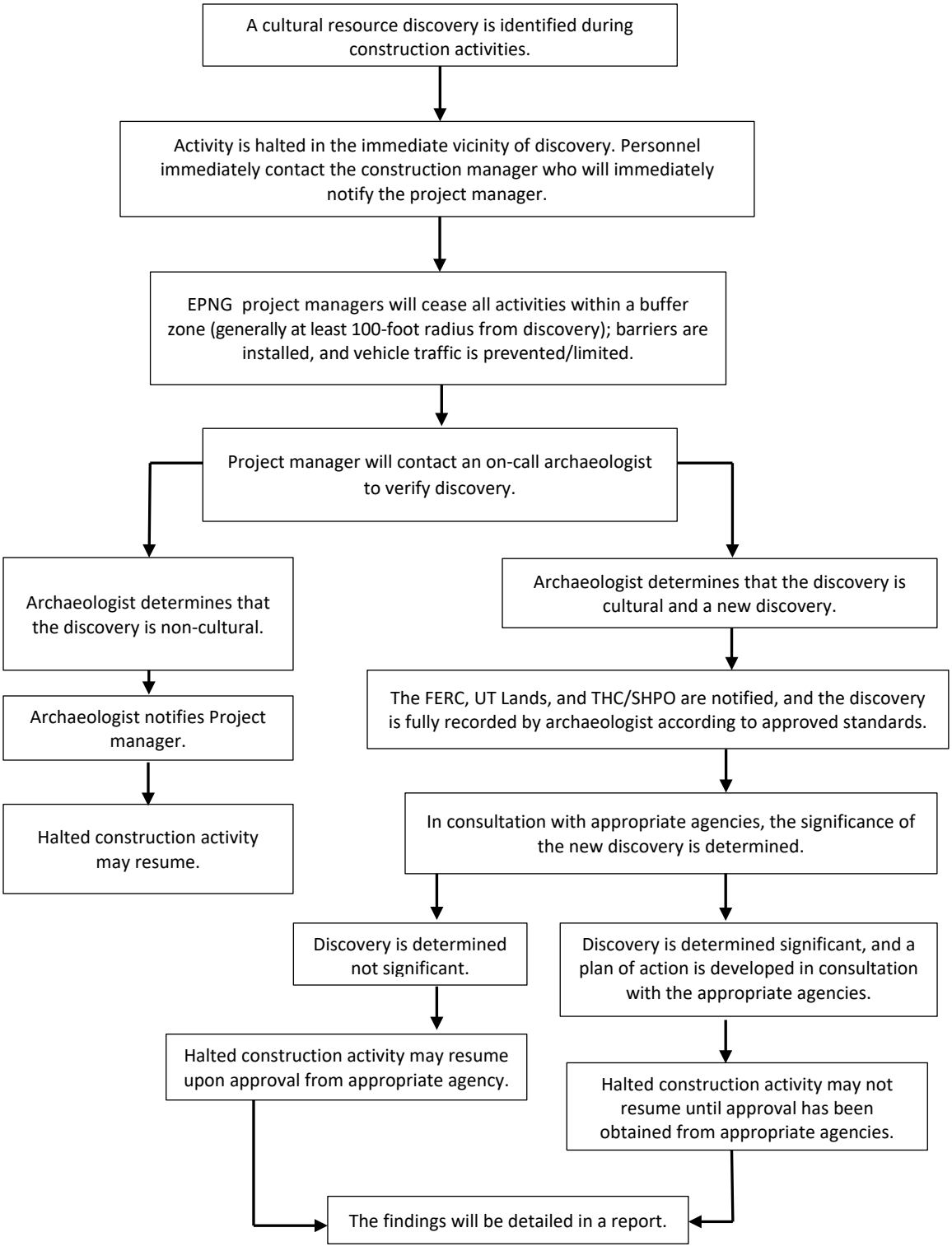
A flowchart of the abbreviated procedures in the event of discovery of human remains is provided in Attachment B.

A Project-specific contact list is included as Attachment C.

ATTACHMENT A

Procedures for Addressing Cultural Resource Discoveries

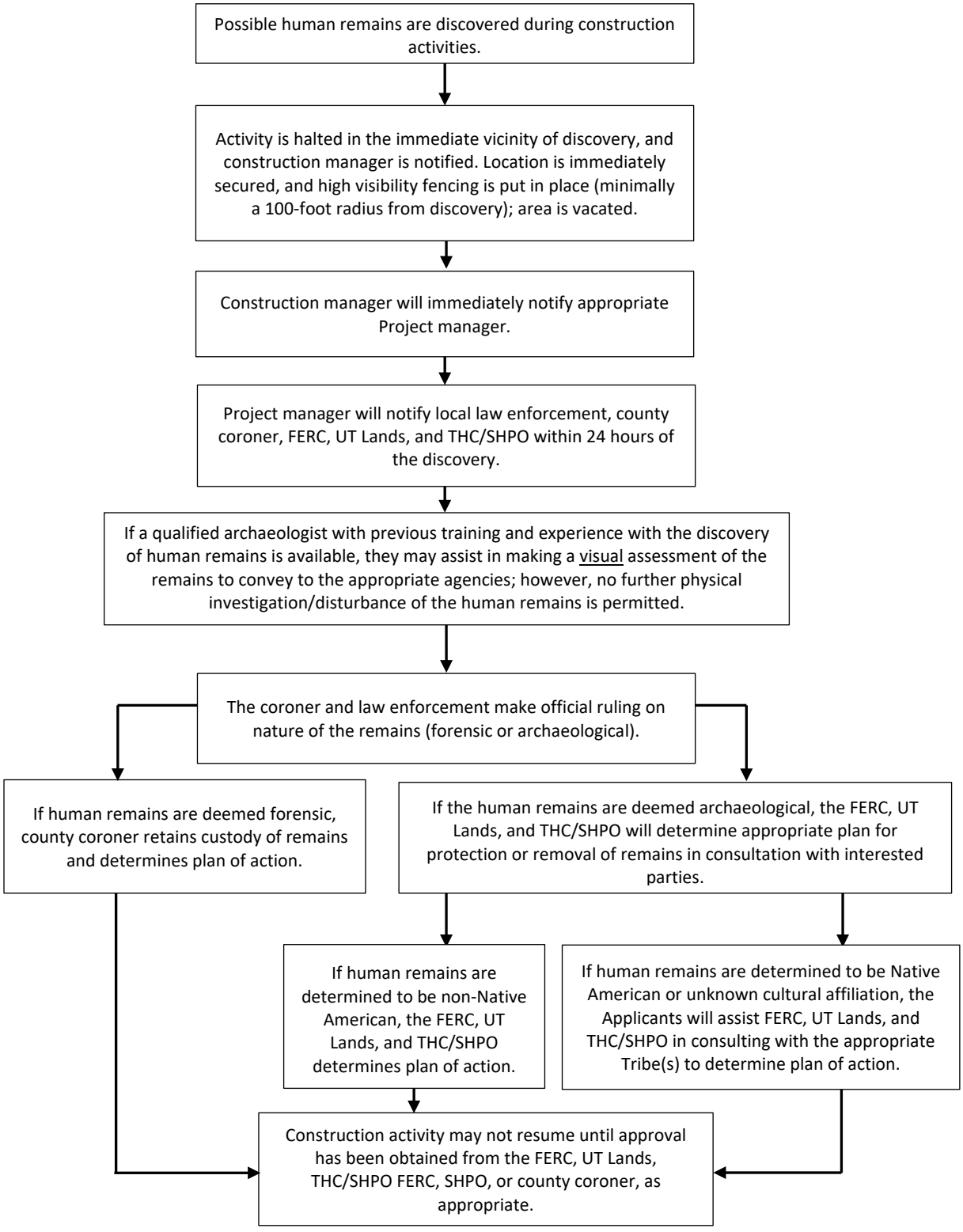
Procedures for Addressing Cultural Resource Discoveries



ATTACHMENT B

Procedures for the Unanticipated Discovery of Human Remains or Funerary Objects

Procedure for the Unanticipated Discovery of Human Remains



ATTACHMENT C

Contact List for Discovery Plan

EPNG Management

Name	Role	Email	Phone
Steven Gassman	Project Manager	Steven_Gassman@kindermorgan.com	719-290-4475
TBD	Construction Coordinator		

FERC Contacts

Role	Name	Phone	Email
Archaeologist	Allison King	202-502-8847	Allison.King@ferc.gov

UT Lands / THC / SHPO Contacts

Role	Name	Phone	Email	Address
UT Lands	Jeff White	432-674-4404	Jeff.White@utsystem.edu	PO Box 552, Midland, Texas 79705-5319
Hudspeth County Contact	Drew Sitters	512-463-6508	Drew.Sitters@thc.texas.gov	PO Box 12276 Austin, Texas 78711

Tribal Historic Preservation Officers

Tribal Nation	Name	Phone	Email
Apache Tribe of Oklahoma	Durell Cooper	(405) 247-9493	durellcooper05@gmail.com
Comanche Nation, Oklahoma	Martina Minthorn	(580) 595-9618	martina.minthorn@comanchenation.com
Mescalero Apache Tribe of the Mescalero Reservation, New Mexico	Holly Houghten	(575) 464-3005	holly@mathpo.org
Tonkawa Tribe of Indians of Oklahoma	Lauren Norman-Brown	(580) 628-7027	lbrown@tonkawatribe.com
Wichita and Affiliated Tribes (Wichita, Keechi, Waco & Tawakonie), Oklahoma	Gary McAdams	(405) 247-8695 ext. 200	gary.mcadams@wichitatribe.com
Ysleta del Sur Pueblo	Rene Lopez	915-859-7913	lopezr@ydsp-nsn.gov

Coroner/Medical Examiner and Law Enforcement

County	Coroner/Medical Examiner	Law Enforcement
Hudspeth County	Hudspeth County Coroner / Justice of the Peace Precinct #1 PO Box 40, Sierra Blanca, Texas 79851 915-369-4141	Hudspeth County Sheriff's Office Sheriff Arvin West PO Box 39, Sierra Blanca, Texas 79851 915-369-2161

9. Remove or redact all archaeological site location information from publicly available documents (e.g. background review maps provided in tribal letters in EPNG Line No. 1110 Loop Project_Part 4 of 8_VolII). Please note that all material containing cultural resource locations, character, or ownership information is privileged information (PRIV) and should be filed as non-public and labeled as: "CUI//CEII" (18 CFR 388.113), "CUI//PRIV" (18 CFR 388.112), and as otherwise appropriate with other statutes for labeling CUI (e.g., "CUI//CEII/SSI" and in accordance with 49 CFR 15.13 marking requirements).

Response:

On September 22, 2023, EPNG filed agency correspondence under Appendix E that included copies of tribal letters. As part of that appendix, EPNG inadvertently included archaeological site location information. Therefore, in order to correct the record, EPNG is herein attaching to this response, a revised Appendix E which removes the non-public information from the public document. In addition, EPNG is filing as part of this response the non-public archaeological site location information. This information is privileged information and has been labeled as CUI//PRIV.

Respondent: Cody Mikeska
Title: Kinder Morgan, Permitting Project Manager
Phone: 713-420-6723

Appendix 1E

Agency Correspondence

Tribal Correspondence

Apache Tribe of Oklahoma

From:	Mikeska, Cody
To:	"bkomardley@outlook.com"
Subject:	Apache Tribe of Oklahoma - natural gas project in Hudspeth County, TX
Date:	Tuesday, June 27, 2023 1:30:00 PM
Attachments:	Tribal Consultation_Apache Tribe of Oklahoma_Bobby Komardley.pdf image001.png

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Chairman Komardley,

Attached for your review is a letter regarding a natural gas pipeline project located in Hudspeth County, Texas that your Tribe may have an interest in. Please let me know if you have any questions.

Thank you,
Cody Mikeska

Cody Mikeska
Specialist-Permitting Compliance
Office 713.420.6723
Cell 281.795.9152
1001 Louisiana Street | Houston, TX 77002

El Paso Natural Gas Company, L.L.C.
a Kinder Morgan company

June 27, 2023

Bobby Komardley, Chairman
Apache Tribe of Oklahoma
PO Box 1330
Anadarko, Oklahoma 73005

Sent Via Email: bkomardley@outlook.com

Re: El Paso Natural Gas Company, L.L.C.
Line No. 1110 Loop Project
Hudspeth County, Texas

Dear Mr. Komardley,

El Paso Natural Gas Company, L.L.C. (EPNG) invites the Apache Tribe of Oklahoma to review and comment on EPNG's proposed Line No. 1110 Loop Project (Project). The Project is considered a federal undertaking and regulated by the Federal Energy Regulatory Commission (FERC). We respectfully request your assistance with the identification of any known traditional cultural properties that may be affected by the proposed Project. The Project is located approximately 37 miles southeast of El Paso, Texas in Hudspeth County. GPS coordinates for the proposed Project site are 31.678658, -105.689095. A USGS Topographic Map depicting the Project location is attached. The Project is proposed to start in October of 2023, or upon issuance of all applicable permits.

EPNG is proposing to extend Line No. 1110 approximately two miles with 30-inch outside diameter (O.D.) pipeline between the existing EPNG Cornudas and Hueco Compressor Stations. This loop extension is designed to alleviate a capacity constraint that exists between these two stations and generate approximately 20,021 Dekatherms (Dth) per day of additional firm transportation capacity.

The proposed Project would include the installation of approximately two miles of 30-inch O.D. natural gas pipeline, one new pig launcher, and one new hot tap to the adjacent EPNG Line No. 1103 pipeline as well as the removal of one pig launcher.

Prior to the start of the Project, EPNG will install erosion and sedimentation controls using best management practices. All areas of disturbance will be restored to preconstruction conditions.

Cultural Resources Survey: SWCA Environmental Consultants, Inc. (SWCA) was contracted to complete a background records review which identified three previously recorded archaeological sites within or immediately adjacent to the Area of Potential Effects (APE); all three sites are considered Undetermined for listing in the National Register of Historic Places (NRHP). No historic properties were identified within the APE. SWCA then prepared a Texas Antiquities Permit application, as the Project crosses lands owned or managed by the University of Texas (University Lands), a political subdivision of the State of Texas. This application was submitted to University Lands on May 26, 2023 for review and approval. Once the Texas Antiquities Permit is issued by the Texas Historical Commission (THC), SWCA will conduct a Phase I field survey of the proposed APE. Please see the attached *Proposed Scope of work for Intensive*

El Paso Natural Gas Company, L.L.C.
a Kinder Morgan company

Archaeological Investigation of the Line No. 1110 Loop Project within University Lands, Hudspeth County, Texas, which includes topographic and aerial photo-based figures of the proposed project area. Upon request, EPNG can provide a copy of the Phase I survey report once the archaeological fieldwork has been completed.

Although we respectfully request the Apache Tribe of Oklahoma provide comments to EPNG regarding potential impacts to traditional cultural properties or the survey content, please note that the FERC is responsible for government-to-government consultations with Native American tribes.

Please address comments to me via email cody_mikeska@kindermorgan.com. Feel free to contact me by phone at (713) 420-6723 if you have any additional questions or concerns.

Sincerely,

Cody Mikeska
Specialist-Permitting Compliance Sr. II

Enc: *Proposed Scope of work for Intensive Archaeological Investigation of the Line No. 1110 Loop Project within University Lands, Hudspeth County, Texas*

Comanche Nation, Oklahoma

From:	Mikeska, Cody
To:	"martina.minthorn@comanchenation.com"
Subject:	Comanche Nation, Oklahoma - natural gas project in Hudspeth County, TX
Date:	Tuesday, June 27, 2023 1:32:00 PM
Attachments:	image001.png Tribal Consultation_Comanche Nation Oklahoma_Martina Minthorn.pdf

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Ms. Minthorn,

Attached for your review is a letter regarding a natural gas pipeline project located in Hudspeth County, Texas that your Tribe may have an interest in. Please let me know if you have any questions.

Thank you,
Cody Mikeska

Cody Mikeska
Specialist-Permitting Compliance
Office 713.420.6723
Cell 281.795.9152
1001 Louisiana Street | Houston, TX 77002

El Paso Natural Gas Company, L.L.C.
a Kinder Morgan company

June 27, 2023

Martina Minthorn, THPO
Comanche Nation, Oklahoma
PO Box 908
Lawton, Oklahoma 73502

Sent Via Email: martina.minthorn@comanchenation.com

Re: El Paso Natural Gas Company, L.L.C.
Line No. 1110 Loop Project
Hudspeth County, Texas

Dear Ms. Minthorn,

El Paso Natural Gas Company, L.L.C. (EPNG) invites the Comanche Nation, Oklahoma to review and comment on EPNG's proposed Line No. 1110 Loop Project (Project). The Project is considered a federal undertaking and regulated by the Federal Energy Regulatory Commission (FERC). We respectfully request your assistance with the identification of any known traditional cultural properties that may be affected by the proposed Project. The Project is located approximately 37 miles southeast of El Paso, Texas in Hudspeth County. GPS coordinates for the proposed Project site are 31.678658, -105.689095. A USGS Topographic Map depicting the Project location is attached. The Project is proposed to start in October of 2023, or upon issuance of all applicable permits.

EPNG is proposing to extend Line No. 1110 approximately two miles with 30-inch outside diameter (O.D.) pipeline between the existing EPNG Cornudas and Hueco Compressor Stations. This loop extension is designed to alleviate a capacity constraint that exists between these two stations and generate approximately 20,021 Dekatherms (Dth) per day of additional firm transportation capacity.

The proposed Project would include the installation of approximately two miles of 30-inch O.D. natural gas pipeline, one new pig launcher, and one new hot tap to the adjacent EPNG Line No. 1103 pipeline as well as the removal of one pig launcher.

Prior to the start of the Project, EPNG will install erosion and sedimentation controls using best management practices. All areas of disturbance will be restored to preconstruction conditions.

Cultural Resources Survey: SWCA Environmental Consultants, Inc. (SWCA) was contracted to complete a background records review which identified three previously recorded archaeological sites within or immediately adjacent to the Area of Potential Effects (APE); all three sites are considered Undetermined for listing in the National Register of Historic Places (NRHP). No historic properties were identified within the APE. SWCA then prepared a Texas Antiquities Permit application, as the Project crosses lands owned or managed by the University of Texas (University Lands), a political subdivision of the State of Texas. This application was submitted to University Lands on May 26, 2023 for review and approval. Once the Texas Antiquities Permit is issued by the Texas Historical Commission (THC), SWCA will conduct a Phase I field survey of the proposed APE. Please see the attached *Proposed Scope of work for Intensive*

El Paso Natural Gas Company, L.L.C.
a Kinder Morgan company

Archaeological Investigation of the Line No. 1110 Loop Project within University Lands, Hudspeth County, Texas, which includes topographic and aerial photo-based figures of the proposed project area. Upon request, EPNG can provide a copy of the Phase I survey report once the archaeological fieldwork has been completed.

Although we respectfully request the Comanche Nation, Oklahoma provide comments to EPNG regarding potential impacts to traditional cultural properties or the survey content, please note that the FERC is responsible for government-to-government consultations with Native American tribes.

Please address comments to me via email cody_mikeska@kindermorgan.com. Feel free to contact me by phone at (713) 420-6723 if you have any additional questions or concerns.

Sincerely,

Cody Mikeska
Specialist-Permitting Compliance Sr. II

Enc: *Proposed Scope of work for Intensive Archaeological Investigation of the Line No. 1110 Loop Project within University Lands, Hudspeth County, Texas*

Mescalero Apache Tribe

From:	Mikeska, Cody
To:	"holly@mathpo.org"
Subject:	Mescalero Apache Tribe of the Mescalero Reservation, New Mexico - natural gas project in Hudspeth County, TX
Date:	Tuesday, June 27, 2023 1:34:00 PM
Attachments:	Tribal Consultation_Mescalero Apache Tribe of the Mescalero Reservation, New Mexico_Holly Houghten.pdf image001.png

Ms. Houghten,

Attached for your review is a letter regarding a natural gas pipeline project located in Hudspeth County, Texas that your Tribe may have an interest in. Please let me know if you have any questions.

Thank you,
Cody Mikeska

Cody Mikeska
Specialist-Permitting Compliance
Office 713.420.6723
Cell 281.795.9152
1001 Louisiana Street | Houston, TX 77002

El Paso Natural Gas Company, L.L.C.
a Kinder Morgan company

June 27, 2023

Holly Houghten, THPO
Mescalero Apache Tribe of the Mescalero Reservation, New Mexico
PO Box 227
Mescalero, New Mexico 88340

Sent Via Email: holly@mathpo.org

Re: El Paso Natural Gas Company, L.L.C.
Line No. 1110 Loop Project
Hudspeth County, Texas

Dear Ms. Houghten,

El Paso Natural Gas Company, L.L.C. (EPNG) invites the Mescalero Apache Tribe of the Mescalero Reservation, New Mexico to review and comment on EPNG's proposed Line No. 1110 Loop Project (Project). The Project is considered a federal undertaking and regulated by the Federal Energy Regulatory Commission (FERC). We respectfully request your assistance with the identification of any known traditional cultural properties that may be affected by the proposed Project. The Project is located approximately 37 miles southeast of El Paso, Texas in Hudspeth County. GPS coordinates for the proposed Project site are 31.678658, -105.689095. A USGS Topographic Map depicting the Project location is attached. The Project is proposed to start in October of 2023, or upon issuance of all applicable permits.

EPNG is proposing to extend Line No. 1110 approximately two miles with 30-inch outside diameter (O.D.) pipeline between the existing EPNG Cornudas and Hueco Compressor Stations. This loop extension is designed to alleviate a capacity constraint that exists between these two stations and generate approximately 20,021 Dekatherms (Dth) per day of additional firm transportation capacity.

The proposed Project would include the installation of approximately two miles of 30-inch O.D. natural gas pipeline, one new pig launcher, and one new hot tap to the adjacent EPNG Line No. 1103 pipeline as well as the removal of one pig launcher.

Prior to the start of the Project, EPNG will install erosion and sedimentation controls using best management practices. All areas of disturbance will be restored to preconstruction conditions.

Cultural Resources Survey: SWCA Environmental Consultants, Inc. (SWCA) was contracted to complete a background records review which identified three previously recorded archaeological sites within or immediately adjacent to the Area of Potential Effects (APE); all three sites are considered Undetermined for listing in the National Register of Historic Places (NRHP). No historic properties were identified within the APE. SWCA then prepared a Texas Antiquities Permit application, as the Project crosses lands owned or managed by the University of Texas (University Lands), a political subdivision of the State of Texas. This application was submitted to University Lands on May 26, 2023 for review and approval. Once the Texas Antiquities Permit is issued by the Texas Historical Commission (THC), SWCA will conduct a Phase I field survey of the proposed APE. Please see the attached *Proposed Scope of work for Intensive*

El Paso Natural Gas Company, L.L.C.
a Kinder Morgan company

Archaeological Investigation of the Line No. 1110 Loop Project within University Lands, Hudspeth County, Texas, which includes topographic and aerial photo-based figures of the proposed project area. Upon request, EPNG can provide a copy of the Phase I survey report once the archaeological fieldwork has been completed.

Although we respectfully request the Mescalero Apache Tribe of the Mescalero Reservation, New Mexico provide comments to EPNG regarding potential impacts to traditional cultural properties or the survey content, please note that the FERC is responsible for government-to-government consultations with Native American tribes.

Please address comments to me via email cody_mikeska@kindermorgan.com. Feel free to contact me by phone at (713) 420-6723 if you have any additional questions or concerns.

Sincerely,

Cody Mikeska
Specialist-Permitting Compliance Sr. II

Enc: *Proposed Scope of work for Intensive Archaeological Investigation of the Line No. 1110 Loop Project within University Lands, Hudspeth County, Texas*

Tonkawa Tribe of Indians of Oklahoma

From:	Mikeska, Cody
To:	"lbrown@tonkawatribe.com"
Subject:	Tonkawa Tribe of Indians of Oklahoma - natural gas project in Hudspeth County, TX
Date:	Tuesday, June 27, 2023 1:36:00 PM
Attachments:	Tribal Consultation_Tonkawa Tribe of Indians of Oklahoma_Lauren Norman-Brown.pdf image001.png

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Ms. Norman-Brown,

Attached for your review is a letter regarding a natural gas pipeline project located in Hudspeth County, Texas that your Tribe may have an interest in. Please let me know if you have any questions.

Thank you,
Cody Mikeska

Cody Mikeska
Specialist-Permitting Compliance
Office 713.420.6723
Cell 281.795.9152
1001 Louisiana Street | Houston, TX 77002

El Paso Natural Gas Company, L.L.C.
a Kinder Morgan company

June 27, 2023

Lauren Norman-Brown, THPO
Tonkawa Tribe of Indians of Oklahoma
1 Rush Buffalo Road
Tonkawa, Oklahoma 74653-4449

Sent Via Email: lbrown@tonkawatribe.com

Re: El Paso Natural Gas Company, L.L.C.
Line No. 1110 Loop Project
Hudspeth County, Texas

Dear Ms. Norman-Brown,

El Paso Natural Gas Company, L.L.C. (EPNG) invites the Tonkawa Tribe of Indians of Oklahoma to review and comment on EPNG's proposed Line No. 1110 Loop Project (Project). The Project is considered a federal undertaking and regulated by the Federal Energy Regulatory Commission (FERC). We respectfully request your assistance with the identification of any known traditional cultural properties that may be affected by the proposed Project. The Project is located approximately 37 miles southeast of El Paso, Texas in Hudspeth County. GPS coordinates for the proposed Project site are 31.678658, -105.689095. A USGS Topographic Map depicting the Project location is attached. The Project is proposed to start in October of 2023, or upon issuance of all applicable permits.

EPNG is proposing to extend Line No. 1110 approximately two miles with 30-inch outside diameter (O.D.) pipeline between the existing EPNG Cornudas and Hueco Compressor Stations. This loop extension is designed to alleviate a capacity constraint that exists between these two stations and generate approximately 20,021 Dekatherms (Dth) per day of additional firm transportation capacity.

The proposed Project would include the installation of approximately two miles of 30-inch O.D. natural gas pipeline, one new pig launcher, and one new hot tap to the adjacent EPNG Line No. 1103 pipeline as well as the removal of one pig launcher.

Prior to the start of the Project, EPNG will install erosion and sedimentation controls using best management practices. All areas of disturbance will be restored to preconstruction conditions.

Cultural Resources Survey: SWCA Environmental Consultants, Inc. (SWCA) was contracted to complete a background records review which identified three previously recorded archaeological sites within or immediately adjacent to the Area of Potential Effects (APE); all three sites are considered Undetermined for listing in the National Register of Historic Places (NRHP). No historic properties were identified within the APE. SWCA then prepared a Texas Antiquities Permit application, as the Project crosses lands owned or managed by the University of Texas (University Lands), a political subdivision of the State of Texas. This application was submitted to University Lands on May 26, 2023 for review and approval. Once the Texas Antiquities Permit is issued by the Texas Historical Commission (THC), SWCA will conduct a Phase I field survey of the proposed APE. Please see the attached *Proposed Scope of work for Intensive*

El Paso Natural Gas Company, L.L.C.
a Kinder Morgan company

Archaeological Investigation of the Line No. 1110 Loop Project within University Lands, Hudspeth County, Texas, which includes topographic and aerial photo-based figures of the proposed project area. Upon request, EPNG can provide a copy of the Phase I survey report once the archaeological fieldwork has been completed.

Although we respectfully request the Tonkawa Tribe of Indians of Oklahoma provide comments to EPNG regarding potential impacts to traditional cultural properties or the survey content, please note that the FERC is responsible for government-to-government consultations with Native American tribes.

Please address comments to me via email cody_mikeska@kindermorgan.com. Feel free to contact me by phone at (713) 420-6723 if you have any additional questions or concerns.

Sincerely,

Cody Mikeska
Specialist-Permitting Compliance Sr. II

Enc: *Proposed Scope of work for Intensive Archaeological Investigation of the Line No. 1110 Loop Project within University Lands, Hudspeth County, Texas*

Wichita and Affiliated Tribes of Oklahoma

From:	Mikeska, Cody
To:	"gary.mcadams@wichitatribe.com"
Subject:	Wichita and Affiliated Tribes (Wichita, Keechi, Waco & Tawakonie), Oklahoma- natural gas project in Hudspeth County, TX
Date:	Tuesday, June 27, 2023 1:38:00 PM
Attachments:	Tribal Consultation_Wichita and Affiliated Tribes Oklahoma_Gary McAdams.pdf image001.png

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Mr. McAdams,

Attached for your review is a letter regarding a natural gas pipeline project located in Hudspeth County, Texas that your Tribe may have an interest in. Please let me know if you have any questions.

Thank you,
Cody Mikeska

Cody Mikeska
Specialist-Permitting Compliance
Office 713.420.6723
Cell 281.795.9152
1001 Louisiana Street | Houston, TX 77002

El Paso Natural Gas Company, L.L.C.
a Kinder Morgan company

June 27, 2023

Gary McAdams, THPO
Wichita and Affiliated Tribes (Wichita, Keechi, Waco & Tawakonie), Oklahoma
PO Box 729
Anadarko, Oklahoma 73005

Sent Via Email: gary.mcadams@wichitatribe.com

Re: El Paso Natural Gas Company, L.L.C.
Line No. 1110 Loop Project
Hudspeth County, Texas

Dear Mr. McAdams,

El Paso Natural Gas Company, L.L.C. (EPNG) invites the Wichita and Affiliated Tribes (Wichita, Keechi, Waco & Tawakonie), Oklahoma to review and comment on EPNG's proposed Line No. 1110 Loop Project (Project). The Project is considered a federal undertaking and regulated by the Federal Energy Regulatory Commission (FERC). We respectfully request your assistance with the identification of any known traditional cultural properties that may be affected by the proposed Project. The Project is located approximately 37 miles southeast of El Paso, Texas in Hudspeth County. GPS coordinates for the proposed Project site are 31.678658, -105.689095. A USGS Topographic Map depicting the Project location is attached. The Project is proposed to start in October of 2023, or upon issuance of all applicable permits.

EPNG is proposing to extend Line No. 1110 approximately two miles with 30-inch outside diameter (O.D.) pipeline between the existing EPNG Cornudas and Hueco Compressor Stations. This loop extension is designed to alleviate a capacity constraint that exists between these two stations and generate approximately 20,021 Dekatherms (Dth) per day of additional firm transportation capacity.

The proposed Project would include the installation of approximately two miles of 30-inch O.D. natural gas pipeline, one new pig launcher, and one new hot tap to the adjacent EPNG Line No. 1103 pipeline as well as the removal of one pig launcher.

Prior to the start of the Project, EPNG will install erosion and sedimentation controls using best management practices. All areas of disturbance will be restored to preconstruction conditions.

Cultural Resources Survey: SWCA Environmental Consultants, Inc. (SWCA) was contracted to complete a background records review which identified three previously recorded archaeological sites within or immediately adjacent to the Area of Potential Effects (APE); all three sites are considered Undetermined for listing in the National Register of Historic Places (NRHP). No historic properties were identified within the APE. SWCA then prepared a Texas Antiquities Permit application, as the Project crosses lands owned or managed by the University of Texas (University Lands), a political subdivision of the State of Texas. This application was submitted to University Lands on May 26, 2023 for review and approval. Once the Texas Antiquities Permit is issued by the Texas Historical Commission (THC), SWCA will conduct a Phase I field survey of the proposed APE. Please see the attached *Proposed Scope of work for Intensive*

El Paso Natural Gas Company, L.L.C.
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Archaeological Investigation of the Line No. 1110 Loop Project within University Lands, Hudspeth County, Texas, which includes topographic and aerial photo-based figures of the proposed project area. Upon request, EPNG can provide a copy of the Phase I survey report once the archaeological fieldwork has been completed.

Although we respectfully request the Wichita and Affiliated Tribes (Wichita, Keechi, Waco & Tawakonie), Oklahoma provide comments to EPNG regarding potential impacts to traditional cultural properties or the survey content, please note that the FERC is responsible for government-to-government consultations with Native American tribes.

Please address comments to me via email cody_mikeska@kindermorgan.com. Feel free to contact me by phone at (713) 420-6723 if you have any additional questions or concerns.

Sincerely,

Cody Mikeska
Specialist-Permitting Compliance Sr. II

Enc: *Proposed Scope of work for Intensive Archaeological Investigation of the Line No. 1110 Loop Project within University Lands, Hudspeth County, Texas*

Ysleta del Sur Pueblo

From: Mikeska, Cody
To: "lopezr@ydsp-nsn.gov"
Subject: Ysleta del Sur Pueblo - natural gas project in Hudspeth County, TX
Date: Tuesday, June 27, 2023 1:39:00 PM
Attachments: Tribal Consultation_Ysleta del Sur Pueblo_Rene Lopez.pdf
image001.png

Mr. Lopez,

Attached for your review is a letter regarding a natural gas pipeline project located in Hudspeth County, Texas that your Tribe may have an interest in. Please let me know if you have any questions.

Thank you,
Cody Mikeska

Cody Mikeska
Specialist-Permitting Compliance
Office 713.420.6723
Cell 281.795.9152
1001 Louisiana Street | Houston, TX 77002

El Paso Natural Gas Company, L.L.C.
a Kinder Morgan company

June 27, 2023

Rene Lopez, THPO
Ysleta del Sur Pueblo
PO Box 17579
El Paso, Texas 79917

Sent Via Email: lopezr@ydsp-nsn.gov

Re: El Paso Natural Gas Company, L.L.C.
Line No. 1110 Loop Project
Hudspeth County, Texas

Dear Mr. Lopez,

El Paso Natural Gas Company, L.L.C. (EPNG) invites the Ysleta del Sur Pueblo to review and comment on EPNG's proposed Line No. 1110 Loop Project (Project). The Project is considered a federal undertaking and regulated by the Federal Energy Regulatory Commission (FERC). We respectfully request your assistance with the identification of any known traditional cultural properties that may be affected by the proposed Project. The Project is located approximately 37 miles southeast of El Paso, Texas in Hudspeth County. GPS coordinates for the proposed Project site are 31.678658, -105.689095. A USGS Topographic Map depicting the Project location is attached. The Project is proposed to start in October of 2023, or upon issuance of all applicable permits.

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Although we respectfully request the Ysleta del Sur Pueblo provide comments to EPNG regarding potential impacts to traditional cultural properties or the survey content, please note that the FERC is responsible for government-to-government consultations with Native American tribes.

Please address comments to me via email cody_mikeska@kindermorgan.com. Feel free to contact me by phone at (713) 420-6723 if you have any additional questions or concerns.

Sincerely,

Cody Mikeska
Specialist-Permitting Compliance Sr. II

Enc: *Proposed Scope of work for Intensive Archaeological Investigation of the Line No. 1110 Loop Project within University Lands, Hudspeth County, Texas*

Letter Attachment Submitted to Tribes

TEXAS ANTIQUITIES PERMIT

PROPOSED SCOPE OF WORK FOR INTENSIVE ARCHAEOLOGICAL INVESTIGATION OF THE LINE NO. 1110 LOOP PROJECT WITHIN UNIVERSITY LANDS, HUDSPETH COUNTY

Project Sponsor – El Paso Natural Gas
Project Consultant – SWCA Environmental Consultants
Principal Investigator – Jay King, M.A. *Date – May 23, 2023*

INTRODUCTION

On behalf of El Paso Natural Gas Company, L.L.C. (EPNG), a Kinder Morgan Company, SWCA Environmental Consultants (SWCA) will conduct an intensive archaeological investigation for the Line No. 1110 Loop Project (Project). Approximately 2.0 miles (3.2 kilometers [km]) of Line No. 1110 Loop centerline, 2.62 acres (1.1 ha) of ancillary facilities, and 14.9 miles (24.0 km) of access roads cross lands owned or managed by the University of Texas (University Lands) in Hudspeth County, Texas (Figures 1 and 2). As the public lands are owned or managed by political subdivisions of the State of Texas, a Texas Antiquities Permit is required in accordance with the Antiquities Code of Texas (Texas Natural Resource Code, Title 9, Chapter 191) and accompanying Rules of Practice and Procedure (Texas Administrative Code, Title 13, Chapter 26). This project is being conducted in support of EPNG's Federal Energy Regulatory Commission (FERC) Prior Notice Environmental Report Application and accompanying Environmental Resource Reports.

The 30-inch natural gas pipeline will generally be constructed within a 75-foot-wide corridor (50 feet of permanent easements and 25 feet of temporary easements). The pipeline will be installed using the conventional open-cut construction method with the pipeline installed approximately 3–8 feet below surface. Construction impacts will be confined to the 75-foot-wide corridor and include the removal of one pig launcher, the installation of one new pig launcher, the installation of a new hot tap adjacent to the EPNG Line No. 1103 pipeline, hydrotesting and associated discharge, trench dewatering, and clearing of vegetation within the corridor. Additional temporary workspaces, including ancillary facilities, will be surveyed and constructed, as needed. To accommodate minor deviations and additional temporary workspaces, SWCA will investigate a 200-foot-wide corridor for the centerline. Proposed improvements to the access roads will be limited to grading of the existing road surface; no widening or rerouting of the roads is proposed. Access roads will be surveyed with any existing disturbances thoroughly documented.

The goal of the work will be to determine if any previously undiscovered archaeological sites are located within the survey corridor or if any eligible resources will be adversely affected by the project. All work will be done in accordance with the standards and guidelines of the Antiquities Code of Texas and Section 106 of the National Historic Preservation Act (NHPA) (16 United States Code [USC] 470) and its implementing regulations (36 CFR 800). The overall approach will ensure that all project related impacts are investigated thoroughly for their potential to affect cultural resources.

PROJECT SETTING AND SURVEY AREA

The project alignment crosses the Level 4 Chihuahuan Desert Grassland and the Level 3 Chihuahuan Desert ecoregions. The physiography of the area includes plateaus, high intermountain basins, alluvial fans, and bajadas. Streams are mostly ephemeral but can emerge from occasional spring sources (Griffith et al. 2007).

Geology in the 15,882.7-acre project area consists of six deposits (Figures 3; U.S. Geological Survey [USGS] 2023a). The dominant formations include the Young Quaternary deposits (Qt) (64.8 %) and the

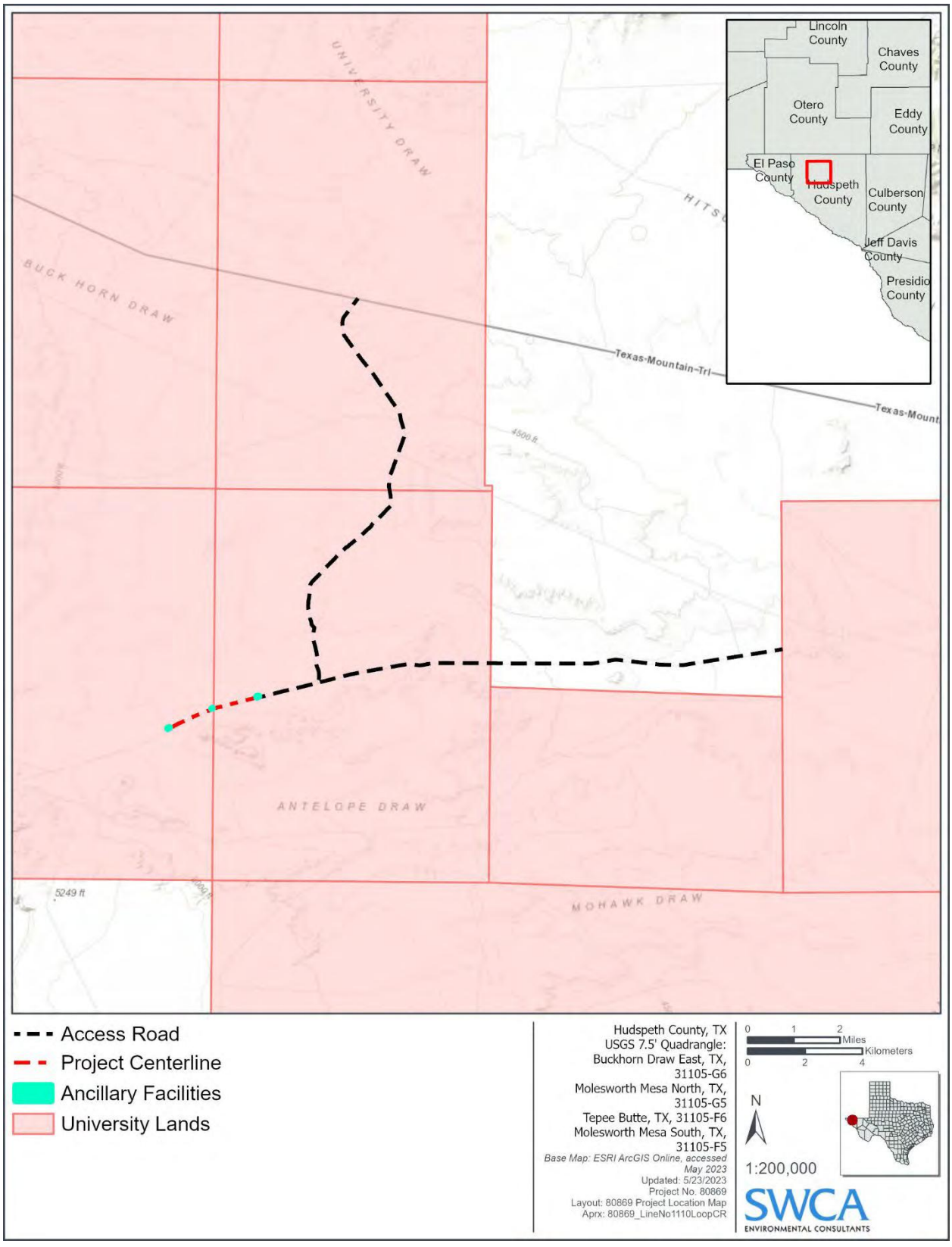

Figure 1. Project location map.

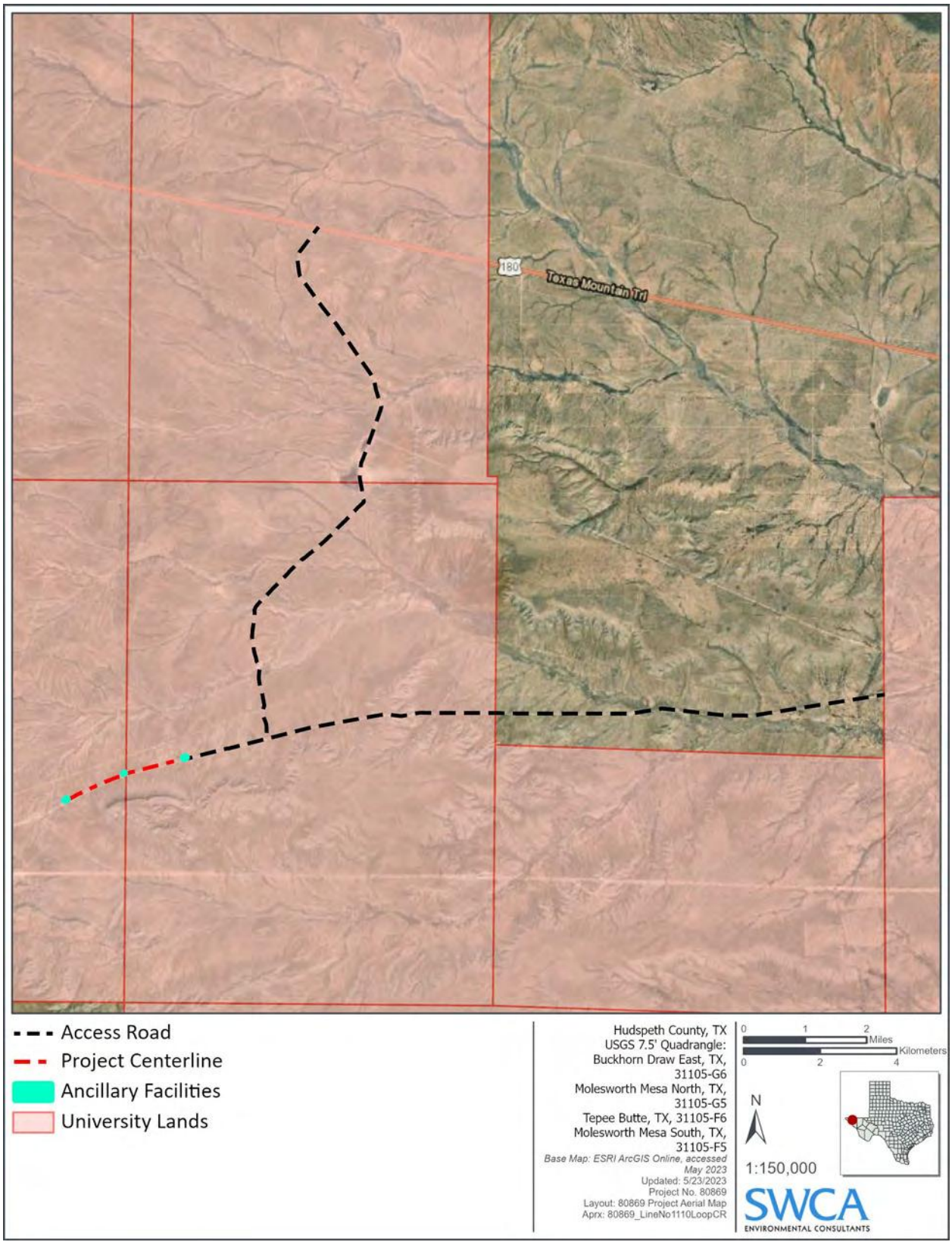

Figure 2. Project area map.

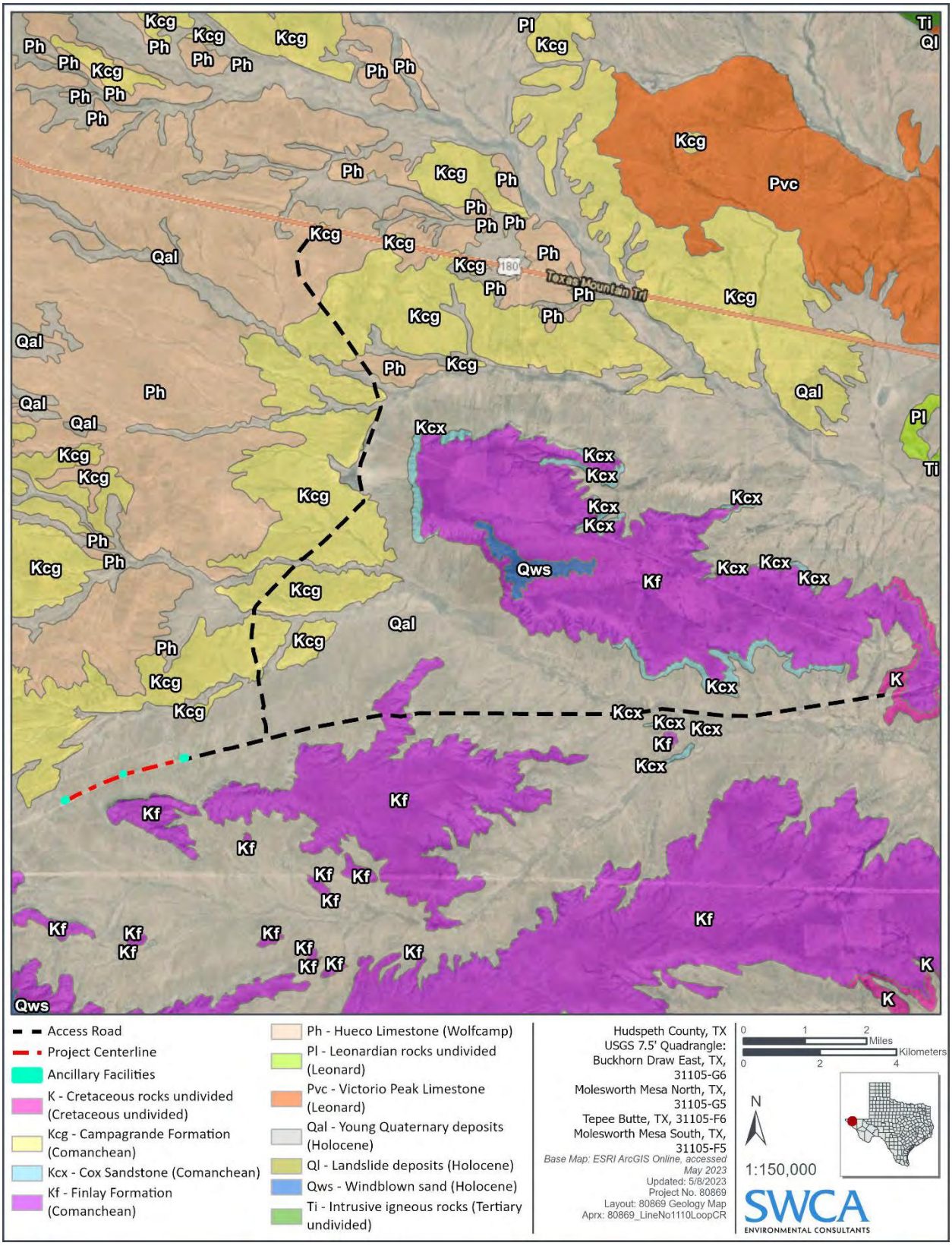

Figure 3. Project area geology map.

Cretaceous age Compagrande Formation (Kcg) (21.4 %). Less dominant deposits include the Hueco Limestone (Ph) (8.2 %), Finley Formation (Kf) (4.1%), Cretaceous rock undivided (K) (1.0%), and Cox Sandstone (Kcx) (0.5 %) (Barnes 1974; USGS 2023a). The Young Quaternary deposits consist of alluvium and low terrace deposits of varying thickness including sand, silt, clay, and gravel.

The Cretaceous age Compagrande Formation consists of calcareous rocks that lie unconformably atop Hueco Formation limestone, marl, conglomerate, sandstone, and siltstone. The Hueco Formation consists of limestone, dolomite, sandstone, shale, mudstone, and conglomerate with a maximum thickness of 1,500 feet. The Finley Formation consists of mostly very fine-grained limestone thin to thickly bedded with nodules, as well as marl, shale, and sandstone with a thickness of approximately 200 feet. Cretaceous rock undivided is marked with Cretaceous age basal rock, and the Cox Sandstone formation consists of thinly bedded quartz sandstone, conglomerate, limestone, and shale with a few thin beds of fossiliferous sandy limestone. The formation varies in thickness from 550 feet to 1,700 feet from the northwest end to the southeast end (Barnes 1974; USGS 2023a).

To an extent, the Young Quaternary deposits have the potential to be archaeologically significant, as they have the potential to have capped and buried intact, undisturbed cultural deposits in stratigraphic sequence, creating archaeological sites with excellent time-depth and the potential to provide significant information about the deep past.

The potential for buried deposits in these geological formations is also dependent on the types of soils found, which can range from very shallow to very deep in areas. According to the Natural Resources Conservation Services (NRCS) Web Soil Survey (NRCS 2023), there are several soil series along the project alignment (see Figures 4). Soils identified along the alignment are listed in Appendix A. Most of the areas contain gravelly loam or clay loam, and much of the area is currently used for agriculture/ranching and oil and gas development.

BACKGROUND REVIEW

An SWCA archaeologist searched the Texas Archeological Sites Atlas (Atlas), a restricted, online database maintained by the Texas Historical Commission (THC) and the Texas Archeological Research Laboratory, for any previously recorded surveys and historic or prehistoric archaeological sites located in or within 0.5-mile of the project area and the associated access roads. In addition to identifying previously recorded surveys and archaeological sites, the Atlas review includes the following types of information: National Register of Historic Places (NRHP) districts and properties, State Antiquities Landmarks (SALs), Official Texas Historical Markers (OTHMs), Registered Texas Historic Landmarks (RTHLs), cemeteries, historic trails, and local neighborhood surveys. Listings in Atlas are limited to projects under purview of the Antiquities Code of Texas or the NHPA of 1966; therefore, all previous work conducted in an area may not be available. As part of the review, archaeologists reviewed maps in the Texas Department of Transportation Historic Overlay and historical USGS topographic maps to determine if there are any historic-age resources within the project (Foster et al. 2006; USGS 2023b).

Previously Conducted Cultural Resources Investigations

The background review revealed that portions of the proposed alignment and associated access roads have been previously investigated for cultural resources between 1985 and 2010 (THC 2023a). Specifically, a total of five previously investigations are documented within 0.5 mile of the project alignment, one of which is collocated with the current project alignment (see Table 1; THC 2023a).

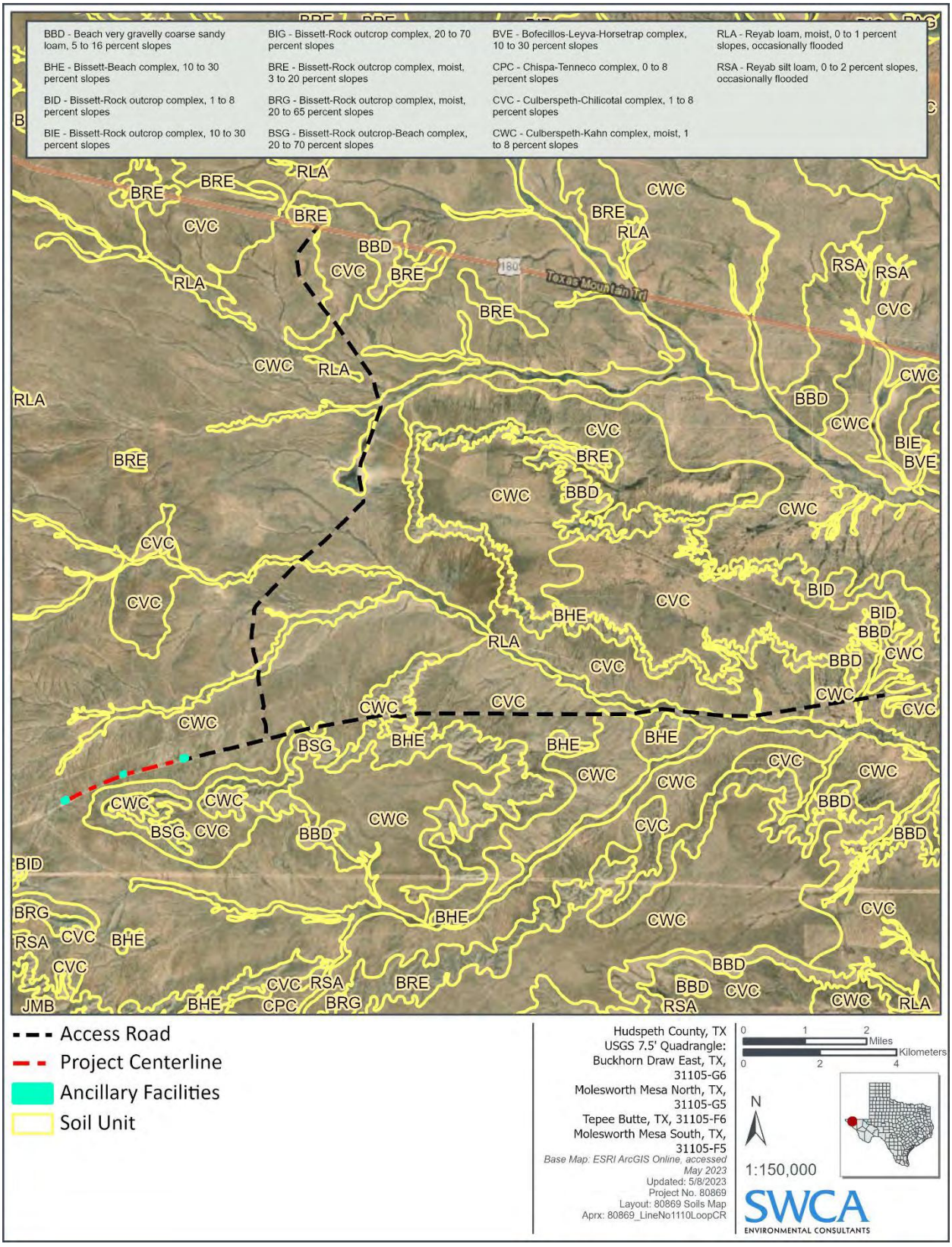

Figure 4. Project area soils map.

Previously Recorded Cultural Resources

A total of three previously recorded archaeological sites, 10 potential historical structures, one potential historical landing strip, and one potential historical pipeline are located within a 0.5-mile radius of the proposed alignment within University Lands (Foster et al. 2066; THC 2023a). No NRHP districts or properties, SALs, historical markers, cemeteries, or neighborhood surveys are located within 0.5 mile of the proposed alignment.

Table 1. Previously Conducted Archaeological Surveys within 0.5 mile (0.8 km) of the Project Area

Project Name	Texas Antiquities Permit No.	Project Date	Project Type	Location	Agency/ Company	Comments
-	-	-	-	-	-	No information available
AAP	-	1985	-	Overlaps access roads	-	No information available
Samalayuca Gas Pipeline Expansion Project	1126	1992–1993	Area survey	Within project area	Federal Energy Regulatory Commission (FERC)/ Mariah Associates, Inc	Recorded 41HZ506
-	-	2001	Area survey	Overlaps access roads	Bureau of Land Management (BLM)	No information available
EPNG Lines 1000 and 1001 Abandonment Project	-	2010	Area survey	Overlaps access roads	FERC/ SWCA	Documented 41HZ746 and 41HZ506

Site 41HZ746 is a prehistoric lithic scatter of an unknown temporal affiliation. The site was recorded during the EPNG Line Nos. 1000 and 1001 Abandonment project conducted by SWCA in 2010 (Murrell 2010). The artifact assemblage was limited to lithic debitage recorded in a surficial context. No subsurface cultural materials or features were observed. Portions of this site within the ROW were recommended as INELIGIBLE for listing on the NRHP; however, no NRHP determination has been made by the THC, thus this site remains UNDETERMINED for the NRHP.

Site 41HZ506 is a twentieth century industrial site for the EPNG Number 2 compression station and residential camp which was demolished during the 1970's. The site was originally recorded during a 1992 investigation for the Samalayuca Gas Pipeline Expansion project and consisted of numerous broken concrete foundations and support pads which housed six Copper-Bessemer reciprocating compressor engines at one time (Evaskovich 1992). Additionally, machinery and pipe supports, bladed areas, roads, and a swimming pool were observed, likely representing the residential area of the site. During the initial recording, the artifact assemblage consisted of machinery and structural-related items and the site was noted as having research potential. In 2010, site 41HZ506 was reinvestigated by SWCA for the EPNG Line Nos. 1000 and 1001 Abandonment Project. During this second investigation, concrete foundations and support pads were identified and a few metal structural and machinery-related fragmentary items were noted, but no historical artifacts were observed (Murrell 2010). In 2010, SWCA noted that the features at site 41HZ506 significantly lacked integrity due to the demolition activities during the 1970's; however, it was noted that oral history or archival research might shed light on life at the compression station's residential camp so SWCA recommended the site as UNDETERMINED for listing on the NRHP. The site currently remains UNDETERMINED for listing on the NRHP (THC 2023a).

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EL PASO NATURAL GAS COMPANY, L.L.C.

REQUEST FOR PRIOR NOTICE AUTHORIZATION PURSUANT TO BLANKET CERTIFICATE

Tribal Letter – Archaeological Site Map

Note information has been removed from this section. The archaeological site map is being submitted as privileged information and marked accordingly as "CUI//PRIV - Contains Privileged Information - Do Not Release".

LINE NO. 1110 LOOP PROJECT

Docket No. CP23-___-000

Site 41HZ453 is a prehistoric lithic scatter of an unknown temporal affiliation recorded in 1985 for the "AAP project." The artifact assemblage consists of six secondary flakes manufactured from gray chert, and no subsurface testing or cultural materials were noted. No additional information is available regarding this site; thus, the site is currently UNDETERMINED for listing on the NRHP (THC 2023a).

PROPOSED SCOPE OF WORK

All investigations will be conducted in accordance with THC and Council of Texas Archeologists (CTA) standards. In addition, the *West Texas Survey Methodology* document provided via email on August 14, 2019, by Drew Sitters (THC) will be used as a guide for recording and evaluating sites documented within the project (Appendix B; Sitters 2019). The survey will be of sufficient intensity to determine the nature, extent, and, if possible, significance of any cultural resources located within the project area. The survey will meet all THC minimum archaeological survey standards for such projects with any exceptions thoroughly documented. The field survey will consist of SWCA archaeologists walking the study area in systematic transects and examining the ground surface and erosional profiles for cultural resources.

Pedestrian Survey and Shovel Testing

Following agency approval of archaeological scope of work, SWCA will conduct a cultural resources survey of the project area, consisting of a 200-foot-wide corridor centered on the proposed approximately 2.0-mile-long pipeline alignment and the approximately 2.62-acres of ancillary facilities. The survey will be of sufficient intensity to determine the nature, extent, and, if possible, potential significance of any cultural resources located within the proposed project area. The survey will meet all THC and Council of Texas Archeologists (CTA) archaeological survey standards. The field survey will consist of two (2) SWCA archaeologists walking the project area with particular focus paid to the drainages and adjacent terraces and slopes, as well as any existing standing structures within the project area. Subsurface investigations will involve shovel testing in settings with the potential to contain buried cultural materials and dependent upon variables such as previous disturbances and the presence of soils. For linear projects, the THC/CTA fieldwork standards require a minimum of 16 shovel tests per linear mile of 100-foot-wide corridor; this equates to approximately 64 shovel tests for the pipeline alignment. Additionally, a minimum of eight shovel tests will be required to survey the approximately 2.62-acres of ancillary facilities. For the 14.9 miles of access roads, SWCA will conduct a pedestrian survey with shovel testing within a 50-foot-wide corridor of the access roads. Shovel testing will target areas with more intact / less disturbed soils and all disturbances will be thoroughly documented.

Shovel tests will be approximately 30 centimeters (cm) in diameter and excavated in arbitrary 20-cm levels to 80 cm below surface or culturally sterile deposits, whichever comes first. SWCA archaeologists will screen the matrix from each shovel test through ¼-inch mesh and will plot the location of each excavation using a hand-held Global Positioning System (GPS) receiver. To document the excavations, archaeologists will record each shovel test on a standardized form.

Site Documentation

If an archaeological site is encountered in the project area during the investigations, it will be explored as much as possible with consideration to land access constraints. SWCA will assess any discovered sites in regard to potential significance so that recommendations can be made for proper management (i.e., avoidance, non-avoidance, or further work). SWCA defines archaeological sites as locations with evidence of prehistoric or historical occupation or activity. This includes locations such as prehistoric campsites, refuse scatters, historic-age buildings and structures (standing or in ruins), and prehistoric features of any kind (e.g., isolated burned rock features, bedrock mortars). For sites in which only artifacts are present, SWCA generally defines sites as having at least five artifacts within a 99-foot (30-m)

radius, with Isolated Finds (IFs) consisting of five or fewer artifacts within a 99-foot (30-m) radius. However, if more than one artifact class is present, the location shall be defined as a site regardless of number of artifacts. If a historical site is encountered, SWCA will adhere to the requirements set forth in the *Guidance For Studying Late 19th-Century and Early 20th-Century Sites,* as outlined by the THC (2023b).

Per CTA and THC standards, SWCA will excavate a minimum of eight delineating shovel tests per site, with a minimum six shovel tests excavated within the site boundary. The delineating shovel tests will be excavated in cardinal directions and will be spaced no further than 49 feet (15 m) apart. All discovered sites will be assessed for their potential significance so that recommendations can be made for proper management (i.e., avoidance, non-avoidance, or further work).

A site visit will be conducted by the Principal Investigator (PI), or approved substitute, for all identified cultural resources sites within the project corridor prior to the submission of a draft report. The PI will evaluate and address the field methods used to record each site and make final recommendations regarding site eligibility. Archaeologists will complete appropriate site data forms for each site discovered during the investigations. SWCA will produce a detailed plan map of each site and will plot site locations on USGS 7.5-minute topographic quadrangle maps and relevant project maps. SWCA will utilize GPS units with sub-meter accuracy to map sites and spatially relate them to the study area. These site polygon data will be provided to EPNG for accurate plotting and use in their planning. SWCA proposes a non-collection survey. SWCA will tabulate, analyze, and document, but not collect, artifacts in the field. Per CTA Archaeologist Guidelines for Professional Performance, Section 4.2.3.6, as artifacts will not be collected, SWCA will provide descriptions, drawings, and photographs that fully convey the range and types of artifacts encountered.

Reporting

Once the fieldwork has been completed, SWCA will prepare a report for review by University Lands, the THC, and FERC. The report of the fieldwork will conform to the CTA and THC standards and guidelines. The report will include the results of the background review and the archaeological fieldwork and historic resources survey. Specifically, it will provide the methodology used in the fieldwork, the presence and condition of previously recorded sites located in and around the project area, the history of the property, photographs illustrating the environment and setting, a description of cultural resources encountered during the fieldwork, architectural descriptions of all historic-age aboveground resources, recommendations for management of those cultural resources, and recommendations for additional fieldwork, if warranted. SWCA will submit a draft digital copy of the report to the client for review and comment. SWCA will address one round of comments and concerns, and at the client's request, SWCA will submit the revised draft to University Lands, the THC, and FERC for review; a shapefile of the surveyed areas will be submitted to the THC along with the draft report per ACT requirements. SWCA will address comments or concerns from University Lands, the THC, and FERC and will produce a final report.

Any discovered cultural resources will be defined and recorded following standard federal and state guidelines. All recorded sites will be mapped in detail with a GPS unit and plotted on U.S. Geological Survey 7.5-minute topographic maps and appropriate project maps for planning purposes. SWCA is proposing a non-collection survey. Artifacts will be tabulated, analyzed, and documented in the field, but not collected. Temporally diagnostic artifacts will be described in detail and photographed in the field, then reburied. This policy will minimize curation costs once the fieldwork is concluded.

Curation

Per Antiquities Code of Texas guidelines, any documents recovered from the permitted portion of the project will be curated at an approved curatorial facility. In this case, a non-collection survey is being proposed; therefore, no artifacts will be curated, and the project documentation will be curated at the Center for Archaeological Research at the University of Texas at San Antonio (CAR-UTSA). Records, files, field notes, forms, documentation of artifacts, and other required documentation will be archived and included in the curation package, according to CAR-UTSA guidelines. The Antiquities Code of Texas also requires that electronic copies of the report in "tagged pdf" format and a project abstract be submitted to THC once the project is completed.

REFERENCES

Barnes, Virgil E.

1974 *Geologic Atlas of Texas: San Angelo Sheet*. Map 1:250,000. Helen Jeanne Plummer Memorial Edition. Bureau of Economic Geology, University of Texas, Austin.

Evaskovich, John A.

1992 *A Cultural Resources Survey for the Proposed Samalayuca Natural Gas Pipeline, El Paso, Hudspeth, Reeves, and Culberson Counties, Texas*. Report No. MAI Project 761. Mariah Associates, Inc. Albuquerque, New Mexico.

Foster, T. R., T. Summerville, and T. Brown

2006 The Texas Historic Overlay: A Geographic Information System of Historic Map Images for Planning Transportation Projects in Texas. Prepared for the Texas Department of Transportation by PBS&J, Austin.

Griffith, Glenn, Sandy Bryce, James Omernik, and Anne Rogers

2007 *Ecoregions of Texas*. Texas Commission on Environmental Quality and the U.S. Environmental Protection Agency. Available at: https://www.epa.gov/eco-research/ecoregion-download-files-state-region-6#pane-41. Accessed April 2023.

Murrell, Jesse B.

2010 An Archaeological Survey for El Paso Corporation's Natural Gas Transmission Lines 1000 and 1001 Abandonment Project, Hudspeth County, Texas. SWCA Environmental Consultants, Albuquerque, New Mexico.

Natural Resources Conservation Service [NRCS]

2023 Web Soil Survey. U.S. Department of Agriculture. Available at: http://websoilsurvey.nrcs.usda.gov. Accessed April 2023.

Sitters, Drew

2019 West Texas Survey Methodology. Communication to Principal Investigators by Drew Sitter, Texas Historical Commission.

Texas Historical Commission [THC]

2023a Texas Archeological Site Atlas [Atlas], restricted database. A joint venture of Texas Historical Commission and Texas Archeological Research Laboratory. Available at: http://pedernales.thc.state.tx.us. Accessed April 2023.

2023b *Guidance For Studying Late 19th-Century and Early 20th-Century Sites.* Available at" https://www.thc.texas.gov/public/upload/publications/Revised_19th_and_20th_Century_Sites.pdf. Accessed May 2023.

U.S. Geologic Survey (USGS)

2023a Texas Geology Web Map. Bureau of Economic Geology. Available at: https://txpub.usgs.gov/txgeology/. Accessed April 2023.

2023b The National Geologic Map Database (TopoView). Historical topographic map collection. Available at: http://ngmdb.usgs.gov/maps/TopoView/. Accessed April 2023.

APPENDIX A:

Project Area Soils

Table A-1. Soils Along Project Alignment

Soil Series	Map ID	Major Soil Component(s)	Texture	Location	Description	Acreage	Percentage
Beach very gravelly coarse sandy loam, 5 to 16 percent slopes	BBD	Beach (80%)	Gravelly loam	Valleys and hills	Very shallow and shallow, well drained, moderately permeable soils that formed in residuum from hard, very fine grained, metamorphic sandstone.	28.01	0.2%
Bissett-Beach complex, 10 to 30 percent slopes	BHE	Bisset (66%)	Gravelly loam	Undulating hills, mountains	Very shallow to shallow, well drained soils that form in colluvium and residuum weathered from limestone.	856.66	5.4%
		Beach (22%)	Gravelly loam	Valleys and hills	Very shallow and shallow, well drained, moderately permeable soils that formed in residuum from hard, very fine grained, metamorphic sandstone.		
Bissett-Rock outcrop complex, 1 to 8 percent slopes	BID	Bisset (70%)	Gravelly loam	Undulating hills, mountains	Very shallow to shallow, well drained soils that form in colluvium and residuum weathered from limestone.	127.18	0.8%
Bissett-Rock outcrop complex, moist, 3 to 20 percent slopes	BRE	Bisset (70%)	Gravelly loam	Undulating hills, mountains	Very shallow to shallow, well drained soils that form in colluvium and residuum weathered from limestone.	135.43	0.9%
Bissett-Rock outcrop-Beach complex, 20 to 70 percent slopes	BSG	Bisset (70%)	Gravelly loam	Undulating hills, mountains	Very shallow to shallow, well drained soils that form in colluvium and residuum weathered from limestone.	283.30	1.8%
Culberspeth-Chilicotal complex, 1 to 8 percent slopes	CVC CWC	Culberspeth (65%)	Gravelly loam	Fan remnants and alluvial fans	Very shallow to shallow to petrocalcic horizon, well drained soils formed in colluvium and alluvium from mixed but dominantly limestone sources.	4052.18	25.5%
		Chilicotal (30%)	Gravelly fine sand loam	Piedmont slopes, fan remnants	Very deep, well drained, moderately permeable soils that formed in loamy gravelly piedmont sediments from igneous mountains.		
Culberspeth-Kahn complex, moist, 1 to 8 percent slopes	RLA BBD	Culberspeth (60%)	Gravelly loam	Fan remnants and alluvial fans	Very shallow to shallow to petrocalcic horizon, well drained soils formed in colluvium and alluvium from mixed but dominantly limestone sources.	9185.17	57.8%
		Kahn (35%)	Silt loam	Alluvial fans, alluvial flats, basin floors	Very deep, well drained soils that formed in mixed fan alluvium.		
Reyab loam, moist, 0 to 1 percent slopes, occasionally flooded	BHE	Reyab (85%)	Loam	Floodplains, fan aprons, and fan piedmonts	Very deep, well drained, moderately slowly permeable soils that formed in alluvium derived from limestone.	1214.75	7.6%

APPENDIX B:

West Texas Survey Methodology

West Texas Survey Methodology

Draft

May 28, 2019

By: Julian (Drew) Sitters

Recording Prehistoric Sites

- Artifacts:
  - Material Class (Lithic Debitage, Ceramic, Ground Stone, Projectile Point, etc.)
  - Quantify each Material Class
  - Raw Material Composition
    - And the raw material's source (if known)
  - Artifact density/frequency across the site area:
    - _X_ artifacts per _X_ square meter(s)
  - Photograph a Representative Sample of Non-Diagnostic Artifacts:
    - Must be Cleary Visible
    - Centered within the Frame
    - Include Scale (in centimeters)
    - Using an Appropriate/Neutral Background
    - Depicting the Variety of Raw Material

- Features:
  - Type (Rock Cairn, Hearth, Burned Rock Midden, Mortar Hole, etc.)
  - Dimensions (metric for prehistoric and imperial for historic)
  - Condition: Intact, Deflated, Dispersed, etc.
  - Shape: Circumscribed, Amorphous, etc.
    - These states of condition and shape must be defined in the report
  - Presence or Absence of (Intact) Deposits
  - Presence or Absence of Dateable Materials
  - Location(s) must be Depicted on Site Map
  - Photograph
    - Must be Clearly Visible
    - Centered within the Frame
    - Include Scale

- Site Maps:
  - Must Depict the Locations of:
    - Shovel and Trowel Tests
    - Features
    - Areas with High Artifact Density
    - Diagnostic Artifacts
      - Which includes ground stone (e.g., metate)
    - Disturbances
    - Landscape Features (e.g., dunes, waterways, etc.)
    - Slope with Direction
    - Boundary
      - Define the boundary in the site write-up.

Recording Historic Sites

- Follow the THC's *Guidance for Studying Late 19th-Century and Early 20th-Century Sites* (**attached**):
    - A minimum of **two out of the three** possible sources of data must be included in the survey report to complete a survey-level assessment:
        - Archival Research (includes both):
            - Historic-age Aerial Photos and Maps; AND
            - Deed Records
                - Deed research should always be done when the site is characterized by residential occupation.
                - Deed research may not be warranted for historic-era roadside trash dumps or engineered features (see below).
        - Oral History
        - Artifact Analysis
            - Artifact analysis and archival map research is sufficient enough for roadside trash dumps and engineered features (bridge, well pad, etc.) not associated with domestic occupation.

    - Historic-era Roadside Trash Dumps:
        - The question has been raised as to whether a historic-era roadside trash dump constitutes designation as an archeological site.
        - In my opinion, a historic-era roadside trash dump does not constitute an archeological site if it meets the following criteria:

            - It postdates 1950
                - Artifact analysis to establish age

            - No association with domestic occupation
                - Established through archival (map) research

            - Lacks ruins, foundations, or other features

            - Lacks buried components
                - Established through shovel testing

            - Commonly occurs within the region
                - Artifact analysis to establish uniqueness, or lack thereof, of the assemblage

Collection

However, if enough detailed description of artifact attributes can be included in site reports, the specimens can be regrouped for purposes of inter-site comparison without having to re-examine the artifacts themselves. LeRoy Johnson (1967)[☼]

- While I prefer the collection of artifacts, "if artifacts are not collected, there must be description, drawings, **and** photographs that fully convey the range of variation and relative frequencies of observed specimens."
  (Council of Texas Archeologists Guidelines for Professional Performance 4.2.3.6)

- "Photographs of chronologically or culturally diagnostic artifacts are considered essential…Where significant artifacts or features were not collected, they should be described in the report."
  (Council of Texas Archeologists Guidelines for Cultural Resource Management Reports 4.2.7)

    - Diagnostic:
        - Projectile Points:
            - Photograph (both sides)
            - Complete Elton Prewitt's *Artifact Quantification Coding Form* (**attached**) for each specimen and include the forms with the report

        - Ceramics (exterior and interior)
            - Photograph
            - According to the *Summary Report of the CTA Ceramic Protocol Committee* (Ellis et al. 2010; **attached**), each sherd in a sample from an archeological site should be analyzed for the five basic ceramic attributes:

                - Paste Morphology/Temper:
                    - Sand
                    - Bone
                    - Grog
                    - Minerals (e.g., granite)

                - Vessel Form/Morphology:
                    - Body
                    - Base
                    - Rim
                    - Neck

                - Thickness (mm)

[☼]Johnson, LeRoy Jr.
1967 *Toward a Statistical Overview of the Archaic Cultures of Central and Southwestern Texas*. Texas Memorial Museum, Bulletin 12, Austin.

        - Decorative Method
            - Plain
            - Engraved
            - Brushed
            - Slipped

        - Exterior and Interior Surface Treatment
            - Smoothed
            - Rough
            - Polished
            - Unpolished
            - Burnished

- Lithic Debitage (sample):
    - Raw Material
    - Reduction Stage (Primary/Secondary/Tertiary)
    - Quantity

- I highly encourage the collection of:
    - Rare/Unique Specimens:
        - Obsidian

        - Personal Adornments **not** associated with human remains or burial:
            - Beads
            - Pendants
            - Bangle

        - Artifacts that reflect exquisite craftsmanship

        - Artifacts in danger of being looted

    - Dateable Materials:
        - Charred Organic Remains
            - Especially if the dateable materials are in danger of being lost.
                - e.g., midden eroding out of a cut-bank.

- I have **attached** (see Kibler 1998) an example of how diagnostic artifacts should be recorded if they are not collected. This example meets CTA guidelines for non-collection surveys.

Subsurface Investigations

- Shovel Testing:
    - Shovel tests should be placed strategically; **in areas where there is potential for buried cultural material** (e.g., dunes, the margins of playas, stream terraces/floodplains of major waterways, alluvial fans, etc.; see THC Archeological Survey Standards for Texas Footnote 1)
        - If no shovel tests are excavated (in **non USACE jurisdictional areas**[☼]), a variety (more than one) of other considerations must be met, such as good surface visibility, a lack of Holocene-age soils, a lack of colluvium or alluvium, no surficial artifacts, restrictive features (e.g., bedrock or basal clay) at the surface, and a lack of soil bearing topographic features (e.g., dunes, playa lunettes, or alluvial fans).

            - These considerations must be described in great detail within the report and supported through (multiple) lines of evidence (e.g., photographs, USDA-NRCS Web Soil Survey soil profiles, shovel test soil profiles [a single shovel test can provide valuable insight into the geomorphic conditions of an area], field observations, etc.).

            - Please note, that the intent is not to reduce the level of effort (digging fewer shovel tests), but rather to redistribute shovel tests to areas where there is greater potential for buried cultural materials.

        - The following are examples of how data from shovel tests coupled with USDA-NRCS Web Soil Data can help justify the lack of potential for deeply buried deposits resulting in minimal shovel testing at the site:

            - A typical shovel test soil profile from site 41JS163 is characterized by brown (10YR 5/3) gravelly loam (0-5 cm bs) underlain by a very dense brown (10R 5/3) clay loam containing gravels (5+ cm bs). Shovel tests (n=2) were terminated in this sterile clay loam, which was interpreted as the B horizon. This soil profile compares favorably to the Oplin very gravelly clay loam soil unit which underlies the site (USDA-NRCS 2018). According to the USDA-NRCS Web Soil Survey (2018), the B-horizon for this soil unit is encountered at approximately seven cm bs. These observations coupled with good surface visibility and a lack of positive shovel tests indicates that the potential for deeply buried cultural deposits at site 41JS163 is low.

[☼]Shovel testing should always be employed in areas that fall within the jurisdiction of the USACE despite physiographic conditions.

Subsurface Investigations cont'd.

- The topography at site 41RG152 is featureless. Coupled with its distance from extant sources of water (5+ miles from any named waterway), the site has little potential to contain deeply buried deposits. This assessment was confirmed during shovel testing (n=4) when investigators encountered a dense, brown (7.5YR 5/3) clay loam intermixed with calcium carbonate at 17 cm bs. This stratum was interpreted as the B-horizon, which, according to the USDA-NRCS Web Soil Survey (2018), is located at 20 cm bs.

- Site Delineation:

  - In **USACE jurisdictional areas** and in areas where there exists potential for deeply buried deposits, a minimum of six (6) subsurface tests are required **to define the site boundary**[☼] for sites measuring less than 1,500 square feet in size

  - If the sites lack the potential for deeply buried deposits (e.g., shallow A-horizon; bedrock exposure; featureless topography [e.g., no dunes], a deflated surface, etc.):
    - A minimum of two (2) shovel tests should be excavated to confirm the lack of potential for deeply buried cultural material and to elucidate site-specific geomorphic context and integrity. **And**…
    - at least four (4) trowel tests[☼☼] should be excavated despite good ground surface visibility to assess the shallow, near surface for cultural material.

  - Ultimately, the total number of subsurface test investigations excavated at a site should be dictated by both the size of the site, presence or absence of soil bearing features (e.g., dunes), and the shovel or trowel tests ability to address research potential and eligibility (horizontal and vertical integrity).

[☼]Shovel tests used to define the site boundary may not provide enough information to elucidate eligibility for inclusion in the NRHP or designation as a SAL. Therefore, additional and strategically placed shovel tests should be excavated to adequately sample the site's deposits in order to make a sound, well informed, and data driven eligibility recommendation.

[☼☼]Only employ shovel testing in USACE jurisdictional areas.

Thermal Feature Evaluation

Thermal features situated in areas of sufficient soil depth were probed [tested] to determine the existence of buried components. Due to being less destructive to feature integrity and more likely to reveal [the] existence of datable charcoal than shovel testing, trowel probing [testing] and lifting of individual FCR within the [feature] nucleus was the preferred method for determining bottom of feature components below surface.
Burgess and Turpin (2018) [*]

- Personal communication with regional experts have stressed the importance for:

    - Looking under thermally altered rock (associated with an intact thermal feature) for charcoal.

    - Trowel testing in the central portion of the thermal feature to evaluate the presence of data potential (e.g., charcoal, soil staining, etc.) and integrity (e.g., buried deposits) is necessary.

        - Trowel tests are intended to be minimally invasive.

        - These methods should be employed at every (intact) thermal feature.

        - The results of these investigations need to be documented and presented within the report and site write-ups.

- Thermal features and fire-cracked rock are common throughout the West Texas region. Examples of these feature types can be found in the Thermal Features **attachment**.
    - Trowel Testing (see Thermal Features [**attached**]):
        - Measuring only 30 cm in diameter, shovel tests are limited in their ability to assess cultural material across a site's horizontal plane. To assess the site assemblage across the horizontal plane, which may be shallowly buried, trowel testing is encouraged in place of the traditional shovel test **once** the potential, or lack thereof, for deeply buried deposits is established using shovel tests. Trowel tests should:
            - Encompass a larger area (e.g., 50 x 50 cm)
            - Be shallowly excavated (≥ 10 cm bs)
            - Screened for Artifacts
            - Geolocated
            - Plotted on a site map
            - Recorded like shovel tests:
                - Texture
                - Color
                - Inclusions
                - Depth of Termination

[*]Burgess, Terry V., and Solveig A. Turpin
2018 *Targeted Archeological Resources Survey for the Affirmed 3D Seismic Shoot on University Lands Culberson County, Texas*. Turpin and Sons Incorporated, Canyon Lake, Texas.

Site Eligibility Evaluation

- Eligibility determinations should consist of a summary of the site's ability to address, or contribute to, a historic context:

    - Miller et al. (2009; **attached**)[*] provide an outline for evaluating the NRHP eligibility of (pre)historic sites.
        - It is highly encouraged that everyone, including (temporary) field technicians, read Miller et al. (2009).

    - Below is an example of an eligibility determination that should <u>conclude</u> a site narrative (this should not be interpreted as the entire site write-up):

        - Site 41JS163 is a prehistoric lithic scatter situated along an eroded stream terrace overlooking Thompson Creek to the west. No chronometric data, such as diagnostic tools or charred organic remains, were identified during site investigations. Thus, without a temporal framework the site cannot empirically address research questions (Miller et al. 2009: 14-4). There were no subsurface cultural deposits identified during shovel (n=4) or trowel (n=6) testing and the surficial artifacts (n=20) are dispersed across an area measuring 26 square meters in size without any apparent clustering, activity areas, or features. Coupled with erosion (e.g., sheet wash), the site lacks spatial (vertical and horizontal) integrity. Additionally, the site assemblage is without a sufficient number of artifacts (>30) from a relevant material class (lithic debitage, ceramic sherds, etc.) for information from the site to be applied toward a quantitative or statistical study. Lastly, site 41JS163, a prehistoric lithic scatter, does not represent a "rare event" in the archeological record of the Southern High Plains archeological region. As a result, the site fails to meet the required criteria to be considered eligible for inclusion in the NRHP under Criterion D, or for designation as a SAL. No additional work is recommended at site 41JS163.

[*]Miller, Myles R., N. A. Kenmotsu, and M. R. Landreth
2009 Procedures for NRHP Eligibility Evaluations and the Design of Research. In *Significance and Research Standards for Prehistoric Archaeological Sites at Fort Bliss: A Design for the Evaluation, Management, and Treatment of Cultural Resources*, pp. 14-1 – 14-13. Prepared for Fort Bliss Garrison Command – Environmental Divisions. Historic and Natural Resources Report No. 05-16.

Reporting

Aside [from] the relatively small, but crucially important, fraction of substantive reports, most CRM reports are, in my opinion, remarkedly free of meaningful content. In fact, most ordinary reports look and sound alike, because they basically contain the same things written in the same dull, technical style. Black (1995)[☼]

- I've attached a checklist that the THC uses when reviewing reports. By making sure you have all the information found on this checklist (and in the proper location) will ensure that your report is reviewed in a timely manner.

- Background research:
    - "A detailed discussion of the research problems in need of further study should be made, and it should be briefly noted whether the research design of the present study has addressed any of those issues." (CTA 4.3.3 Intensive Survey)

- Cultural Background:
    - A cultural background study should not consist of boiler plate, copy and paste text from previous reports.
        - A cultural background should mirror the findings of the current investigation. For example,:
            - If your survey recorded a site characterized by a burned rock midden, I would highly encourage you to focus your cultural background on burned rock middens (in detail, utilizing current references, and citing recent source material/examples from that region).
            - If your survey resulted in the recording of an Early Twentieth Century site, the report should include a detailed description of that region's historic-era as it pertains to your site.
        - A cultural background study should include multiple sources of information and not just paraphrase *The Prehistory of Texas*.

[☼] Black, Stephen L.
1995 (Texas Archeology). *Bulletin of the Texas Archeological Society* 66: 17-45.

Resource Report 6: Geological Resources

10. Section 6.2 describes six oil and gas surface wells within 0.25 mile of the Project. Provide the distance from the Project workspaces to the nearest well.

Response:

The closest distance between a project workspace (PAR #02) and the nearest well is approximately 0.03 miles to the west.

Respondent: Cody Mikeska
Title: Kinder Morgan, Permitting Project Manager
Phone: 713-420-6723

11. If any oil or gas wells are within 150 feet of the Project workspaces, provide a summary of measures that would be implemented to protect the wellheads.

Response:

No wells occur within 150 feet of the Project workspaces. As noted in EPNG's response to Question 10, the nearest well to the closest Project workspace occurs approximately 158 feet (0.03 miles) to the west of PAR #02. Construction traffic and equipment will not be allowed outside the confines of PAR #02 and, therefore, will not interfere with this well.

Respondent: Cody Mikeska
Title: Kinder Morgan, Permitting Project Manager
Phone: 713-420-6723

12. Section 6.4 states "While the proposed Project location includes consolidated carbonate rocks at or near the land surface in a dry climate, which can indicate karst, no karst terrain or features were identified during field surveys." The absence of obvious karst features in terrain conducive to karst processes does not guarantee that buried karst features would not be encountered or activated during ground disturbance. Provide a brief summary of steps that would be taken in the event a karst feature was identified in the Project workspaces.

Response:

General BMPs related to karst features include:

- Daily inspections of open trenches for the presence of voids by the Environmental Inspector.
- Including karst feature awareness as part of the initial environmental training provided to construction crews.

If a karst feature is encountered during construction activities, the following specific BMPs would be undertaken to mitigate impacts:

- Construction personnel shall stop work within an initial 50 foot protective buffer and notify the Environmental Inspector immediately upon encountering karst features.
- The feature will be assessed, documented and photographed by the Environmental Inspector
- The karst feature shall be outfitted with a temporary covering (i.e., plastic tarping) and erosion control devices will be installed to prevent contaminants from entering the open void.
- A geotechnical engineer or licensed geoscientist will be contacted for recommended measures including adjustments to the initial protective buffer distance.
- Temporary measures (e.g., buffers for staging vegetation, vehicle parking, material/equipment storage, etc.) will remain in place until permanent void mitigation is completed.

Respondent: Cody Mikeska
Title: Kinder Morgan, Permitting Project Manager
Phone: 713-420-6723

Resource Report 9: Air & Noise Quality

13. Clarify if there would be any venting emissions and if so, quantify the carbon dioxide equivalent, volatile organic compound, and hazardous air pollutant emissions due to venting or emissions releases during construction/commissioning of the pipeline.

Response:

In preparation for the relocation of the existing pig launcher, EPNG anticipates that venting emissions would occur when decommissioning that facility. Additionally, venting would occur as part of the process of putting the new line into service. These emissions have been calculated in the table below.

Table 1. Venting Emissions from Construction Operations

Parameter	Value	Units	Source / Notes
Volume of Gas Released During Removal of Pig Launcher	34,651.00	scf	*Provided by EPNG*
Volume of Gas Released During Line Purge	24,102,000.00	scf	*Provided by EPNG*
Total Volume of Gas Vented During Construction	24,136,651.00	scf	
Molecular Weight of Gas	16.79	lb/lb-mole	*Provided by EPNG*
Percent VOC	0.29	%	*Provided by EPNG*
VOC Venting Emissions	1.52	tons	*See example calculation below*
Percent HAP	5.13E-04	%	*Provided by EPNG*
HAP Venting Emissions	2.74E-03	tons	*See example calculation below*
Percent CO_2	0.24	%	*Provided by EPNG*
CO_2 Venting Emissions	1.30	tons	*See example calculation below*
Percent CH_4	90.46	%	*Provided by EPNG*
CH_4 Venting Emissions	482.95	tons	*See example calculation below*
CO2e Venting Emissions	10,954.23	metric tons	

Example calculation of tons of pollutant vented to atmosphere:

$$\frac{Volume\ (scf)\ of\ Gas\ Vented\ to\ Atmosphere}{379.53\ \frac{scf}{lb-mol}} \times MW\ of\ Mixture\left(\frac{lb}{lb-mol}\right) \times Weight\ \%\ of\ Pollutant\ \times \frac{1\ ton}{2{,}000\ lb}$$

Table 2. Summary of Estimated Emissions from Construction of the EPNG Line No. 1110 Loop Project

Source	Criteria Pollutants (tpy)							GHGs (tpy)		CO_2e
	PM_{10}	$PM_{2.5}$	VOCs	CO	SO_2	NOx	HAPs	CO_2	CH_4	(metric tpy)
Emission Source										
Non-Road Construction Equipment Engines	0.32	0.31	0.34	2.36	0.01	6.74	0.17	1,749.28	0.02	1,587.42
On-Road Vehicle Engines	0.85	0.34	1.01	52.59	0.05	15.18	0.24	10,925.98	0.21	9,916.63
Construction Fugitive Emissions	0.81	0.08	0.00	-	-	-	-	-	-	-
Venting Emissions	-	-	1.52	-	-	-	0.00	1.30	482.95	10,954.23
Total	**1.98**	**0.73**	**1.35**	**54.95**	**0.06**	**21.92**	**0.41**	**12,675.27**	**0.23**	**11,504.05**

Respondent: Cody Mikeska
Title: Kinder Morgan, Permitting Project Manager
Phone: 713-420-6723

14. Quantify operational emissions (including carbon dioxide equivalent, volatiles organic compounds, and hazardous air pollutants) due to pipeline fugitives and include supporting calculations.

Response:

The only additional operational emissions would be from a new valve installed on the pipeline. All other operations would remain unchanged. A conservative calculation of the emissions from fugitive leaks from the new valve is below.

Table 1. Operational Emissions from Added Valve

Parameter	Value	Units	Source / Notes
Emission factor for OGI non-compressor valve from Subpart W	6.42	scf/hr/component	*Subpart W*
Annual Hours of Operation	8,760.00	scf	*Assumption*
# of Components	1.00		*1 valve added as part of project*
Annual Volume of Gas Released to Atmosphere from Valve Leaks	56,239.20	scf	
Molecular Weight of Gas	16.79	lb/lb-mole	*Provided by EPNG*
Percent VOC	0.29	%	*Provided by EPNG*
VOC Venting Emissions	3.55E-03	tons	*See example calculation below*
Percent HAP	5.13E-04	%	*Provided by EPNG*
HAP Venting Emissions	6.38E-06	tons	*See example calculation below*
Percent CO_2	0.24	%	*Provided by EPNG*
CO_2 Venting Emissions	3.03E-03	tons	*See example calculation below*
Percent CH_4	90.46	%	*Provided by EPNG*
CH_4 Venting Emissions	1.13	tons	*See example calculation below*
CO_2e Venting Emissions	25.52	metric tons	

Example calculation of tons of pollutant vented to atmosphere:

$$\frac{Volume\ (scf)\ of\ Gas\ Vented\ to\ Atmosphere}{379.53\ \frac{scf}{lb-mol}} \times MW\ of\ Mixture\left(\frac{lb}{lb-mol}\right) \times Weight\ \%\ of\ Pollutant\ \times \frac{1\ ton}{2{,}000\ lb}$$

Respondent: Cody Mikeska
Title: Kinder Morgan, Permitting Project Manager
Phone: 713-420-6723

15. Confirm that there are no residences, noise sensitive areas (such as churches or schools) within 0.5 mile of proposed Project workspaces.

Response:

EPNG confirms that there are no residences or noise sensitive areas such as churches or schools within 0.5 miles of the proposed Project workspaces.

Respondent: Cody Mikeska
Title: Kinder Morgan, Permitting Project Manager
Phone: 713-420-6723

STATE OF COLORADO)
)
COUNTY OF EL PASO)

FRANCISCO TARIN, being first duly sworn, on oath, says that he is the Director of the Regulatory Department of El Paso Natural Gas Company, L.L.C.; that he has read the foregoing Response to the Office of Energy Projects' Data Request dated October 20, 2023 in Docket No. CP23-546-000, that as such he is authorized to verify the Response, that he is familiar with the contents thereof; and that the matters and facts set forth therein are true to the best of his information, knowledge and belief.

Francisco Tarin

SUBSCRIBED AND SWORN TO before me, the undersigned authority, on this 30th day of October 2023.

STACIE S GONZALEZ
NOTARY PUBLIC - STATE OF COLORADO
NOTARY ID 20184008426
MY COMMISSION EXPIRES FEB 21, 2026

Stacie S. Gonzalez
Notary Public, State of Colorado
My Commission Expires: February 21, 2026

Certificate of Service

I hereby certify that I have this day caused a copy of the foregoing documents to be served upon each person designated on the official service list compiled by the Commission's Secretary in this proceeding in accordance with the requirements of Section 385.2010 of the Federal Energy Regulatory Commission's Rules of Practice and Procedure.

Dated at Colorado Springs, Colorado as of this 30th day of October 2023.

/s/
Francisco Tarin

Two North Nevada Avenue
Colorado Springs, Colorado 80903
(719) 667-7517