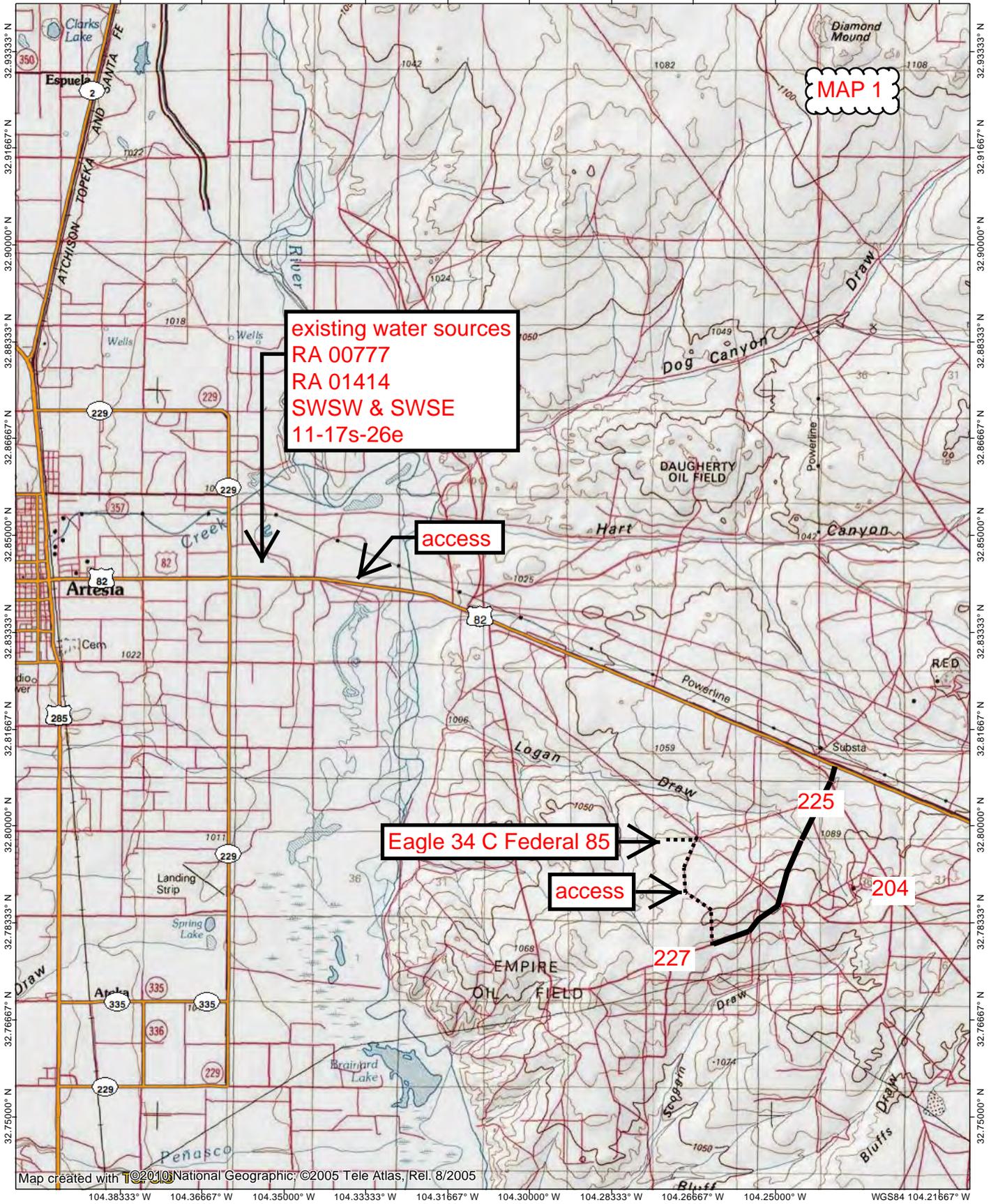
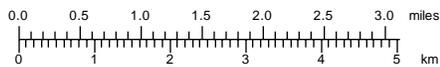
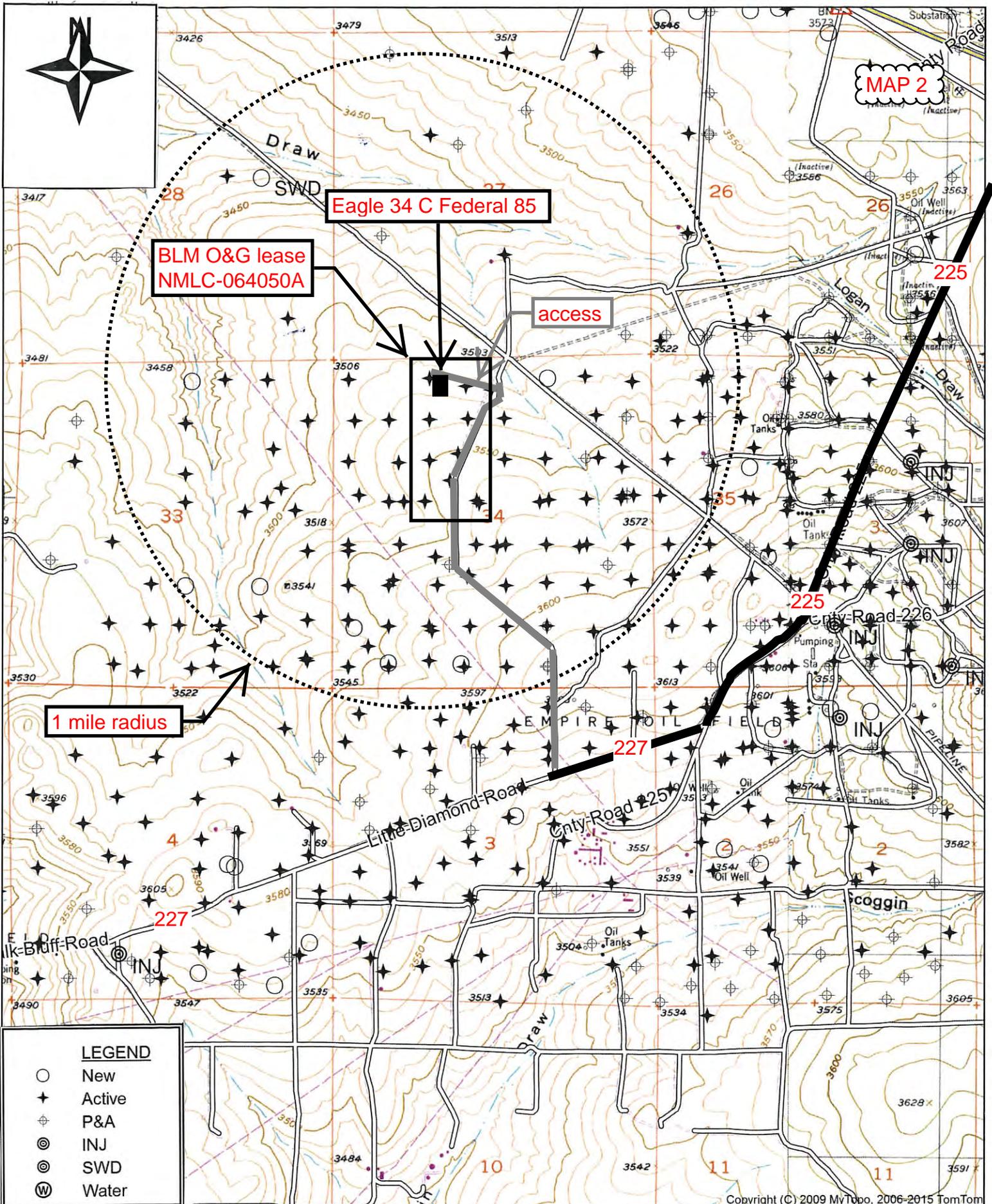


Appendix A



Map created with T©2010 National Geographic, ©2005 Tele Atlas, Rel. 8/2005





Eagle 34 C Federal 85

**BLM O&G lease
NMLC-064050A**

access

1 mile radius

LEGEND	
○	New
+	Active
⊕	P&A
⊙	INJ
⊗	SWD
⊕	Water

Quad: SPRING LAKE
Scale: 1 inch = 2,000 ft.

32.79745, -104.27143
NMNM-096616

build 132.4'
O/H power line

rebuild 640.69'
O/H power line
NMNM-098325

Eagle 34 C
Federal 85

road
NMNM-096616

proposed 1527.8'
pipeline route

Google
© 2015 Google
existing header

MAP 3



600 ft



Appendix B

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office
 AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number		² Pool Code		³ Pool Name	
⁴ Property Code		⁵ Property Name EAGLE 34C FEDERAL			⁶ Well Number 85
⁷ OGRID No. 277558		⁸ Operator Name LIME ROCK RESOURCES II-A, L.P.			⁹ Elevation 3523.8

¹⁰ Surface Location

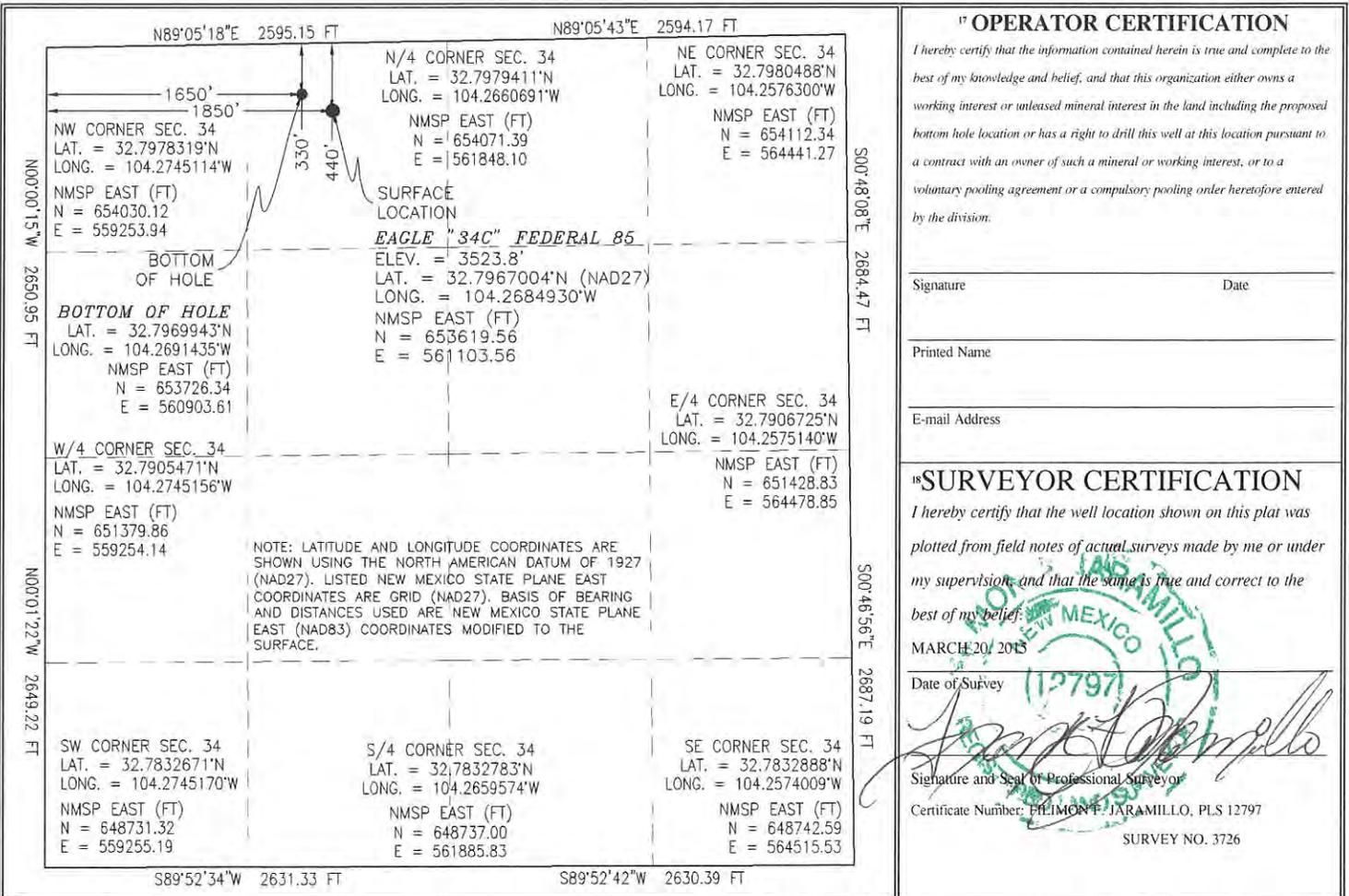
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	34	17 S	27 E		440	NORTH	1850	WEST	EDDY

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	34	17 S	27 E		330	NORTH	1650	WEST	EDDY

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.

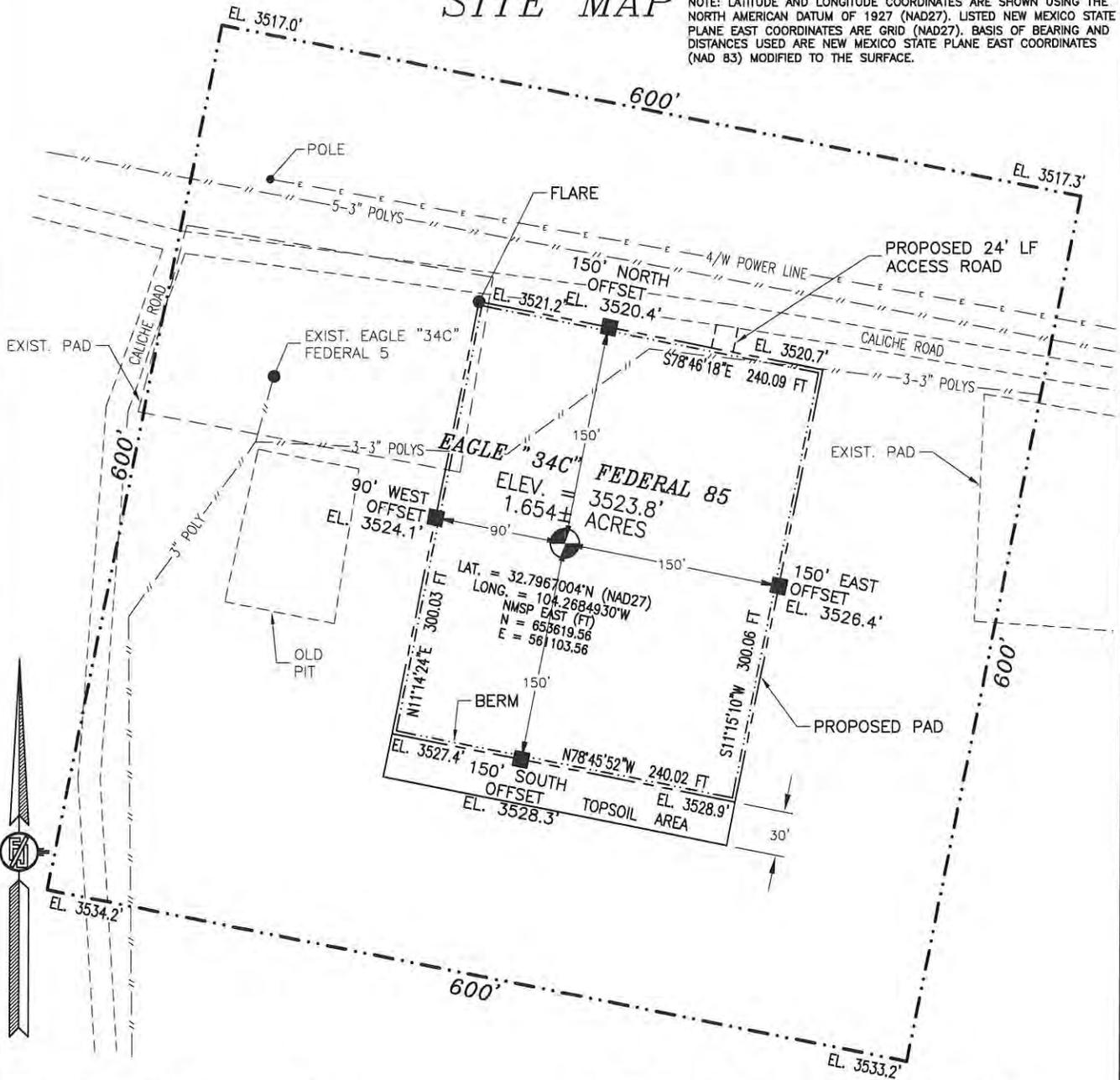
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

SITE MAP

NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1927 (NAD27). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD27). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES (NAD 83) MODIFIED TO THE SURFACE.



SCALE 1" = 100'
 DIRECTIONS TO LOCATION

FROM CR 225 (EMPIRE) AND CR 227 (LITTLE DIAMOND) GO
 SOUTHWEST ON CR 227 0.5 MILE, TURN RIGHT ON CALICHE ROAD
 AND GO NORTH 0.1 MILE, BEND LEFT AND GO NORTHWEST 0.7 MILE,
 BEND RIGHT AND GO EAST 0.11 MILE, TURN LEFT AND GO
 NORTH-NORTHEAST 0.54 MILE, TURN LEFT AND GO NORTHWEST 250',
 BEND LEFT AND GO WEST-NORTHWEST 0.13 MILE, TURN LEFT AND
 GO SOUTH 24' TO NORTHEAST PAD CORNER FOR THIS LOCATION.

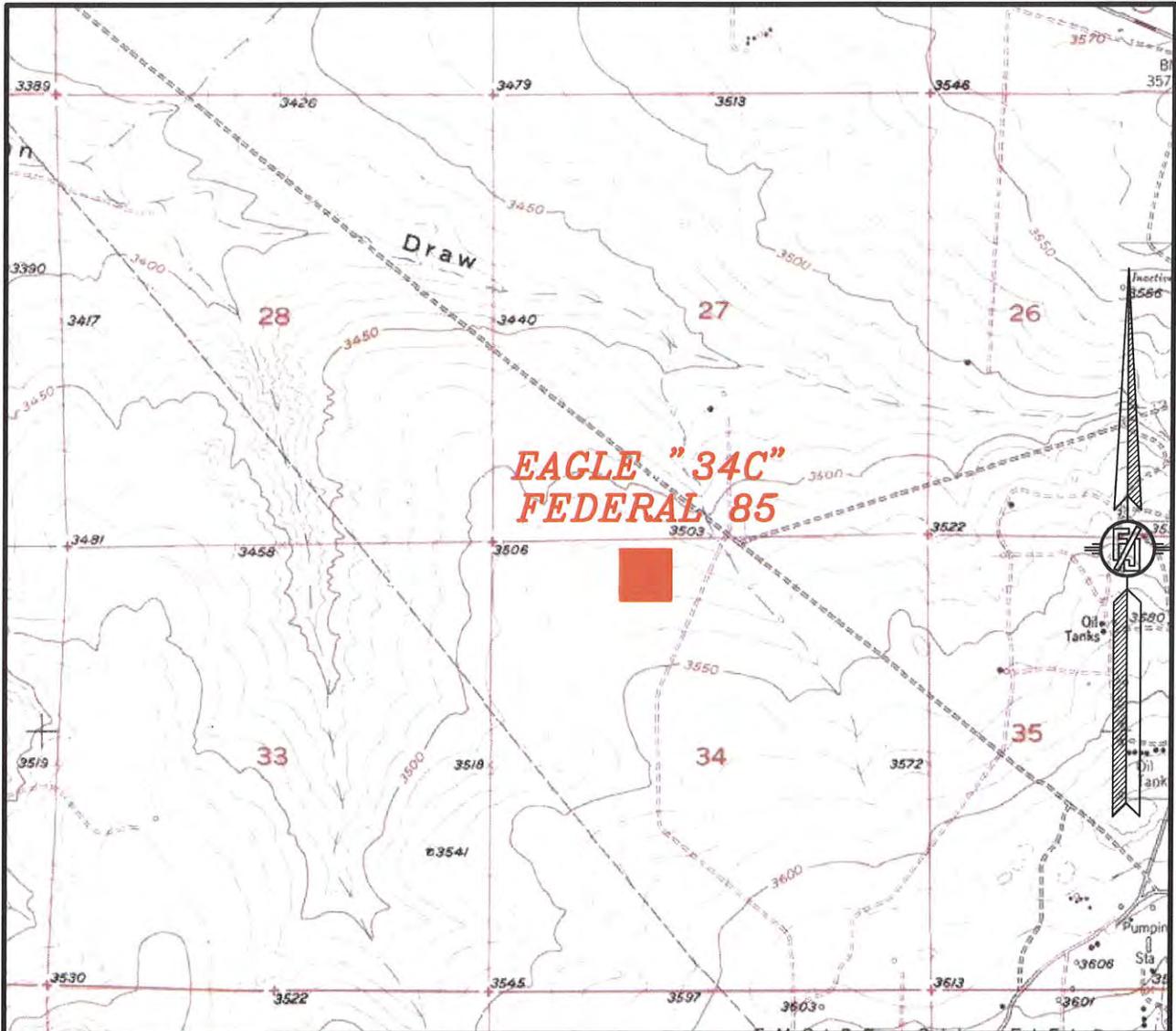
LIME ROCK RESOURCES II-A, L.P.
EAGLE "34C" FEDERAL 85
 LOCATED 440 FT. FROM THE NORTH LINE
 AND 1850 FT. FROM THE WEST LINE OF
 SECTION 34, TOWNSHIP 17 SOUTH,
 RANGE 27 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

MARCH 20, 2015

SURVEY NO. 3726

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
 (575) 234-3341

SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 LOCATION VERIFICATION MAP



USGS QUAD MAP:
 SPRING LAKE

NOT TO SCALE

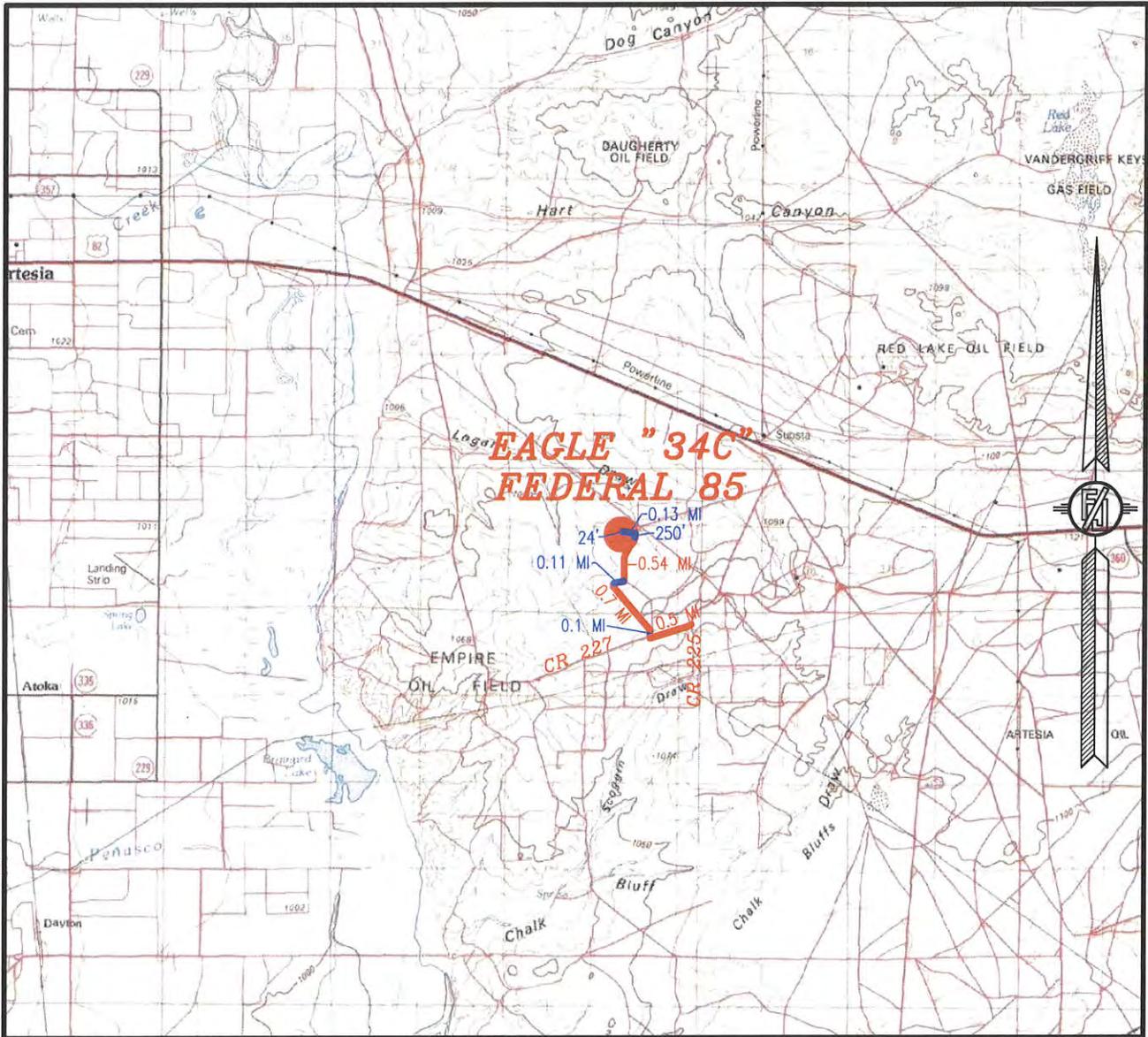
LIME ROCK RESOURCES II-A, L.P.
EAGLE "34C" FEDERAL 85
 LOCATED 440 FT. FROM THE NORTH LINE
 AND 1850 FT. FROM THE WEST LINE OF
 SECTION 34, TOWNSHIP 17 SOUTH,
 RANGE 27 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

MARCH 20, 2015

SURVEY NO. 3726

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
 (575) 234-3341

SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

LIME ROCK RESOURCES II-A, L.P.
EAGLE "34C" FEDERAL 85
 LOCATED 440 FT. FROM THE NORTH LINE
 AND 1850 FT. FROM THE WEST LINE OF
 SECTION 34, TOWNSHIP 17 SOUTH,
 RANGE 27 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

DIRECTIONS TO LOCATION

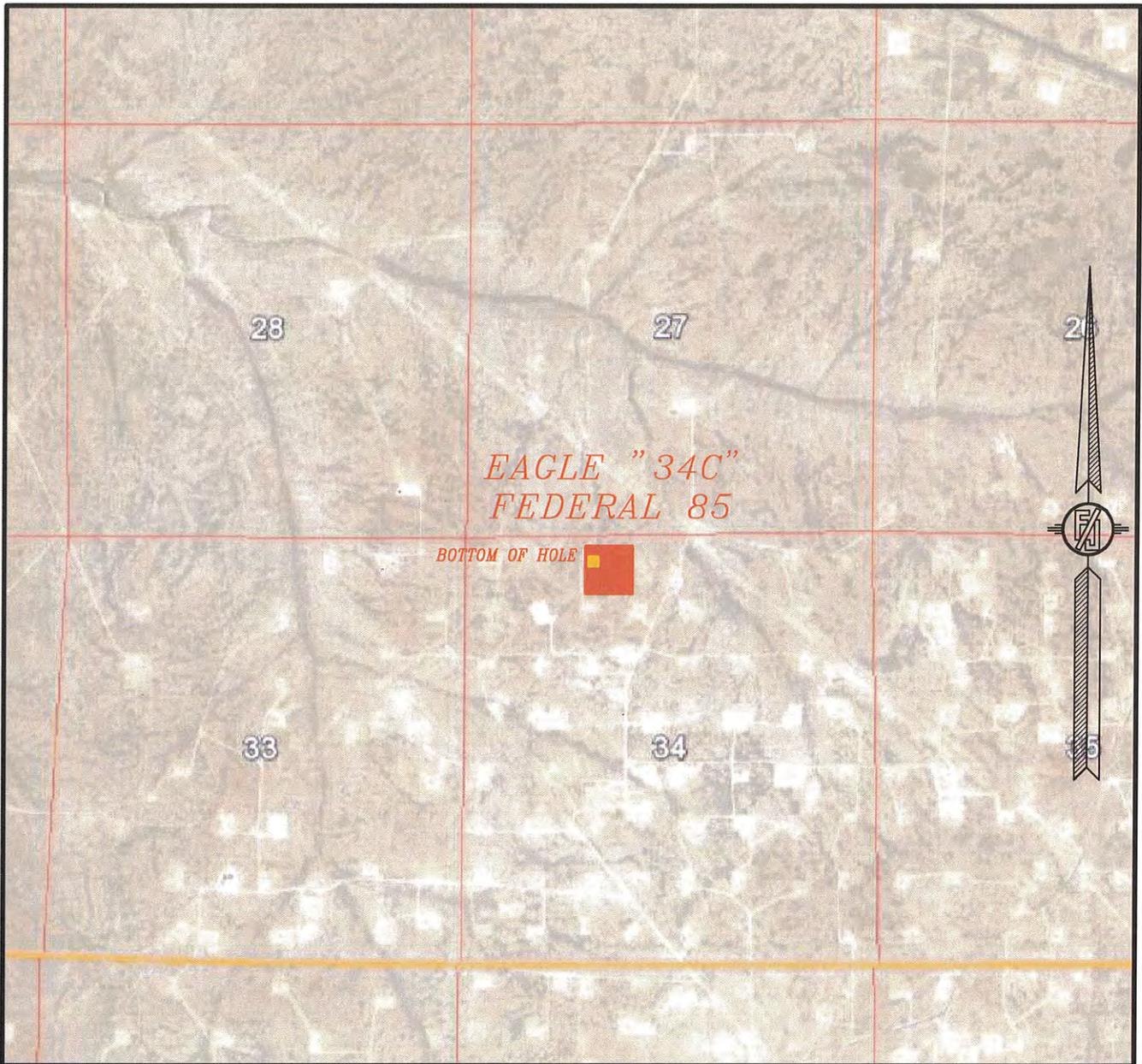
FROM CR 225 (EMPIRE) AND CR 227 (LITTLE DIAMOND) GO
 SOUTHWEST ON CR 227 0.5 MILE, TURN RIGHT ON CALICHE ROAD
 AND GO NORTH 0.1 MILE, BEND LEFT AND GO NORTHWEST 0.7 MILE,
 BEND RIGHT AND GO EAST 0.11 MILE, TURN LEFT AND GO
 NORTH-NORTHEAST 0.54 MILE, TURN LEFT AND GO NORTHWEST 250',
 BEND LEFT AND GO WEST-NORTHWEST 0.13 MILE, TURN LEFT AND
 GO SOUTH 24' TO NORTHEAST PAD CORNER FOR THIS LOCATION.

MARCH 20, 2015

SURVEY NO. 3726

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
 (575) 234-3341

SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
MAY 2014

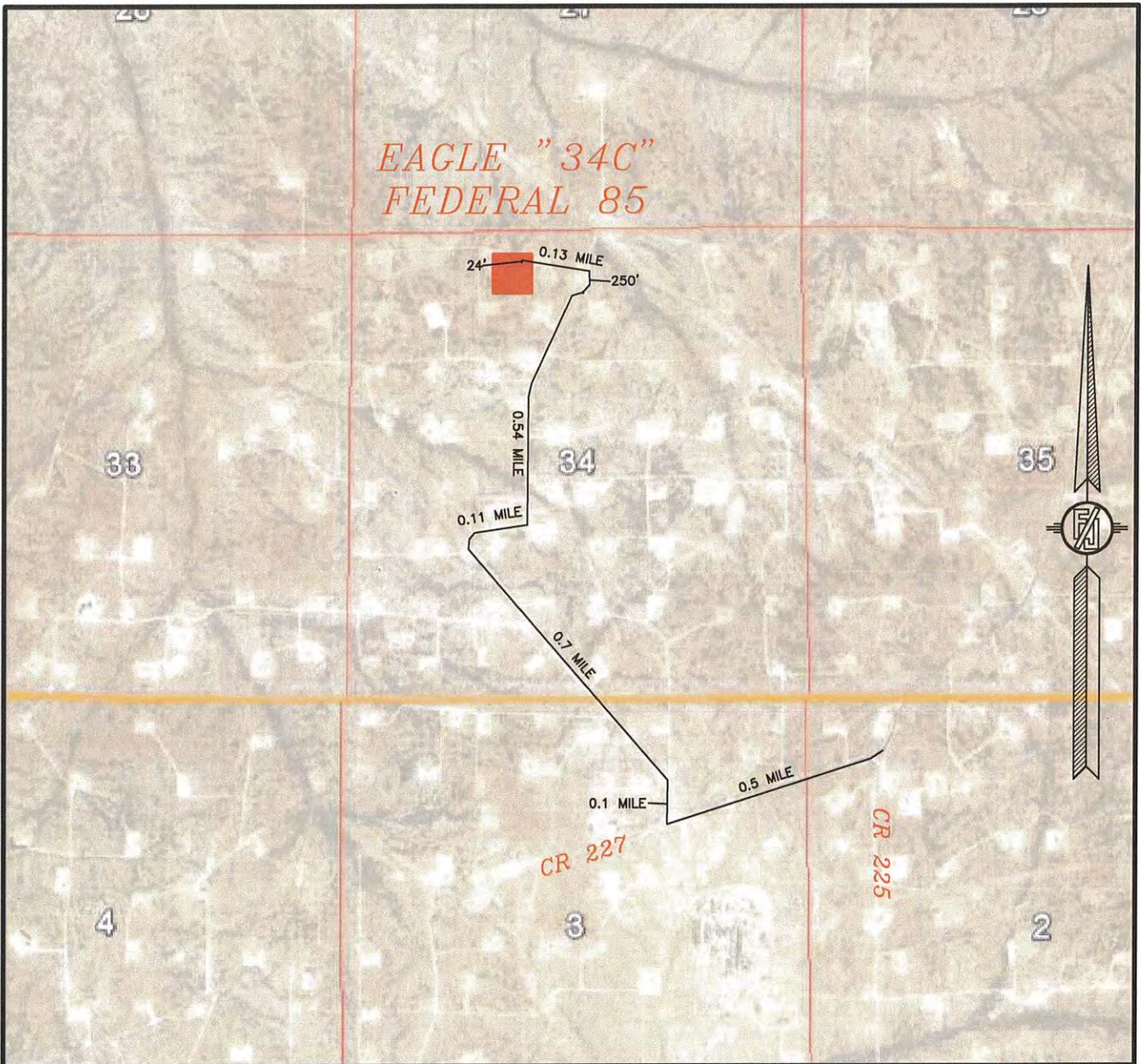
LIME ROCK RESOURCES II-A, L.P.
EAGLE "34C" FEDERAL 85
LOCATED 440 FT. FROM THE NORTH LINE
AND 1850 FT. FROM THE WEST LINE OF
SECTION 34, TOWNSHIP 17 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MARCH 20, 2015

SURVEY NO. 3726

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
ACCESS AERIAL ROUTE MAP



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
MAY 2014

LIME ROCK RESOURCES II-A, L.P.
EAGLE "34C" FEDERAL 85
LOCATED 440 FT. FROM THE NORTH LINE
AND 1850 FT. FROM THE WEST LINE OF
SECTION 34, TOWNSHIP 17 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MARCH 20, 2015

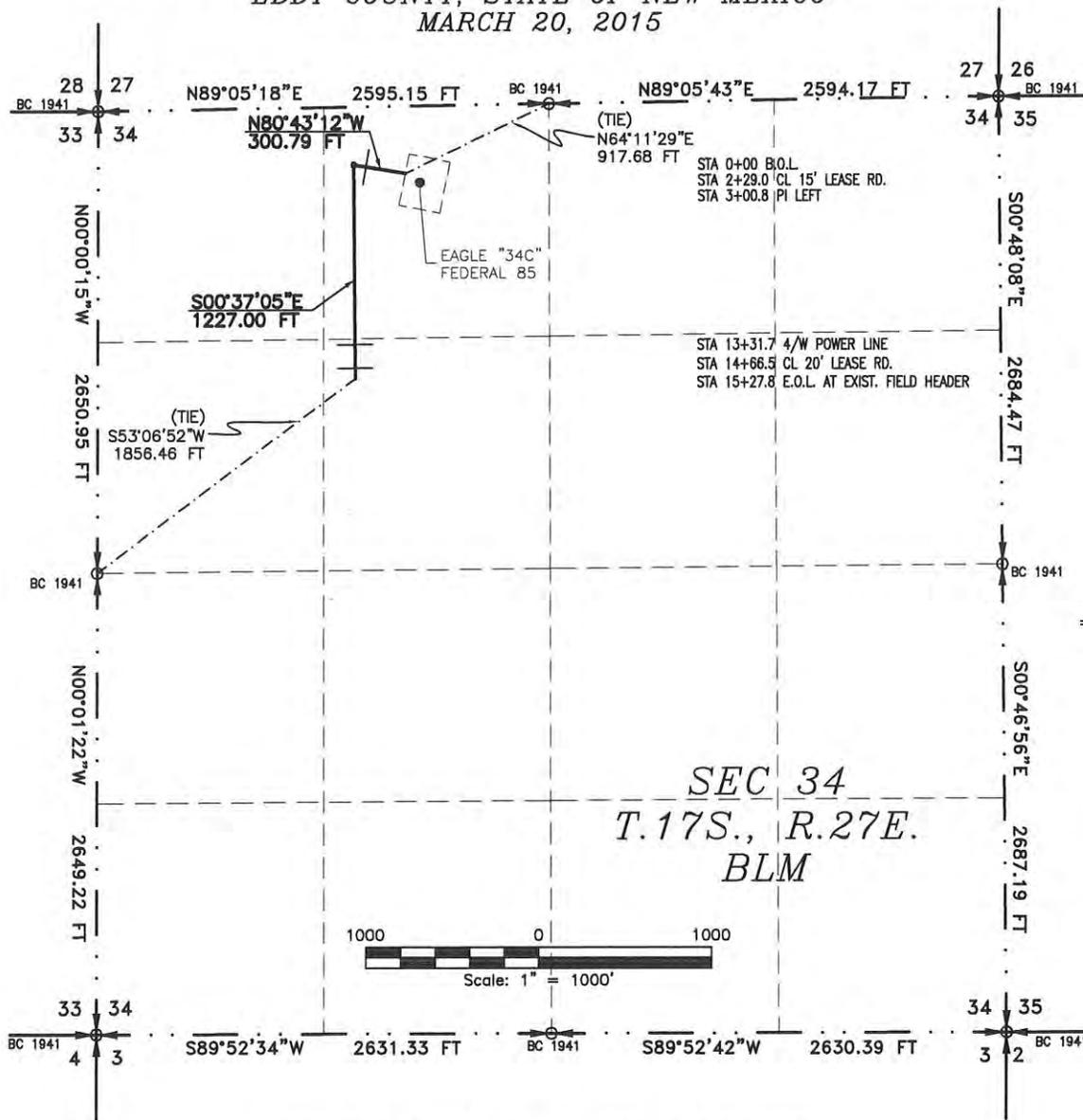
SURVEY NO. 3726

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
(575) 234-3341

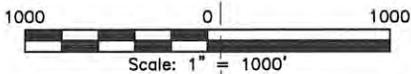
FLOWLINE PLAT

RIGHT-OF-WAY FOR TWO 3" SDR 7 POLY SURFACE LINES (1-GAS & 1-PRODUCTION) FROM THE EAGLE "34C" FEDERAL 85 TO AN EAGLE "33/34" FEDERAL BATTERY FIELD HEADER

LIME ROCK RESOURCES II-A, L.P.
 CENTERLINE SURVEY OF A PIPELINE CROSSING
 SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 MARCH 20, 2015



SEC 34
 T.17S., R.27E.
 BLM



SEE NEXT SHEET (2-4) FOR DESCRIPTION

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 26 DAY OF MARCH 2015

FILIMON F. JARAMILLO PLS 12797
 MADRON SURVEYING, INC.
 301 SOUTH CANAL
 CARLSBAD, NEW MEXICO 88220
 Phone (575) 234-3341

GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING IS NMSP EAST MODIFIED TO SURFACE COORDINATES.

SHEET: 1-4

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

SURVEY NO. 3726

FLOWLINE PLAT

RIGHT-OF-WAY FOR TWO 3" SDR 7 POLY SURFACE LINES (1-GAS & 1-PRODUCTION) FROM THE EAGLE "34C" FEDERAL 85 TO AN EAGLE "33/34" FEDERAL BATTERY FIELD HEADER

**LIME ROCK RESOURCES II-A, L.P.
CENTERLINE SURVEY OF A PIPELINE CROSSING
SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MARCH 20, 2015**

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE NE/4 NW/4 OF SAID SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M., WHENCE THE NORTH QUARTER CORNER OF SAID SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M. BEARS N64°11'29"E, A DISTANCE OF 917.68 FEET;

THENCE N80°43'12"W A DISTANCE OF 300.79 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;

THENCE S00°37'05"E A DISTANCE OF 1227.00 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE WEST QUARTER CORNER OF SAID SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M. BEARS S53°06'52"W, A DISTANCE OF 1856.46 FEET;

SAID STRIP OF LAND BEING 1527.79 FEET OR 92.60 RODS IN LENGTH, CONTAINING 1.052 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NE/4 NW/4 1297.86 L.F. 78.66 RODS 0.894 ACRES
SE/4 NW/4 229.93 L.F. 13.94 RODS 0.158 ACRES

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 26 DAY OF MARCH 2015.

FILIMON F. JARAMILLO
MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 3726

FILIMON F. JARAMILLO PLS. 12797
301 SOUTH CANAL
(575) 234-3341
CARLSBAD, NEW MEXICO

GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING IS NMSP EAST MODIFIED TO SURFACE COORDINATES.

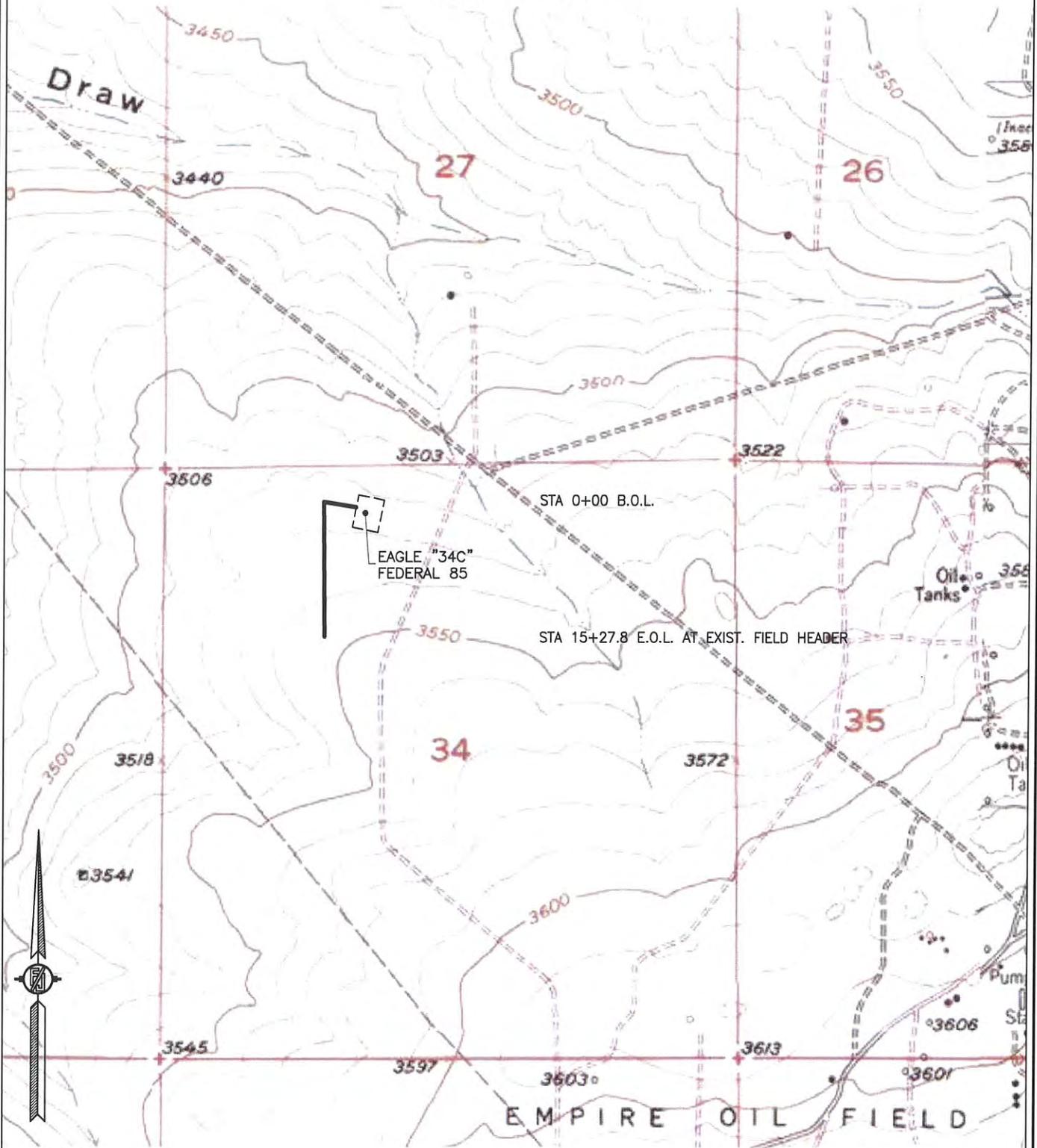
SHEET: 2-4

MADRON SURVEYING, INC.

FLOWLINE PLAT

RIGHT-OF-WAY FOR TWO 3" SDR 7 POLY SURFACE LINES (1-GAS & 1-PRODUCTION) FROM THE EAGLE "34C" FEDERAL 85 TO AN EAGLE "33/34" FEDERAL BATTERY FIELD HEADER

LIME ROCK RESOURCES II-A, L.P.
CENTERLINE SURVEY OF A PIPELINE CROSSING
SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MARCH 20, 2015



SHEET: 3-4

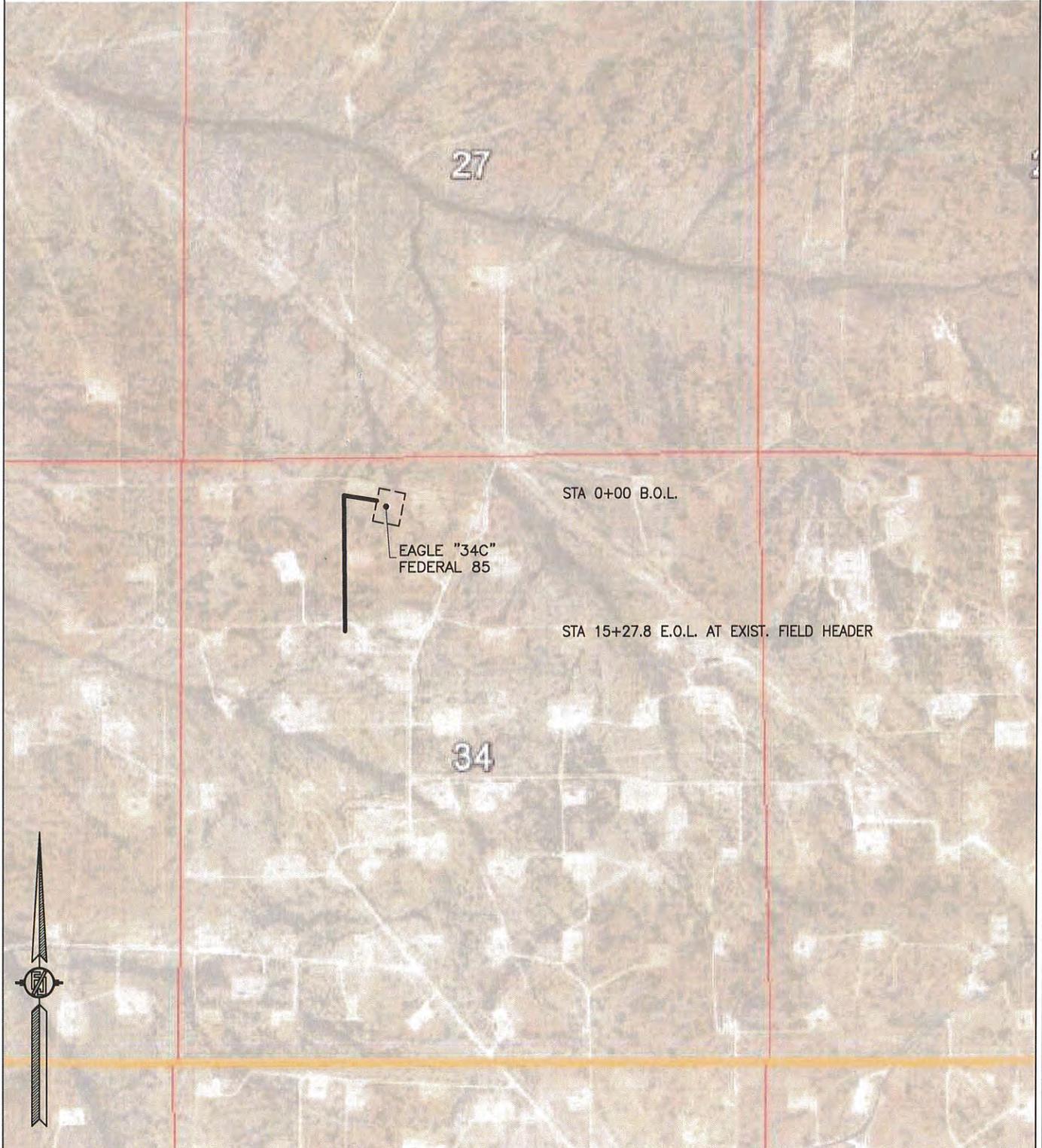
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SURVEY NO. 3726

FLOWLINE PLAT

RIGHT-OF-WAY FOR TWO 3" SDR 7 POLY SURFACE LINES (1-GAS & 1-PRODUCTION) FROM THE EAGLE "34C" FEDERAL 85 TO AN EAGLE "33/34" FEDERAL BATTERY FIELD HEADER

**LIME ROCK RESOURCES II-A, L.P.
CENTERLINE SURVEY OF A PIPELINE CROSSING
SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MARCH 20, 2015**



SHEET: 4-4

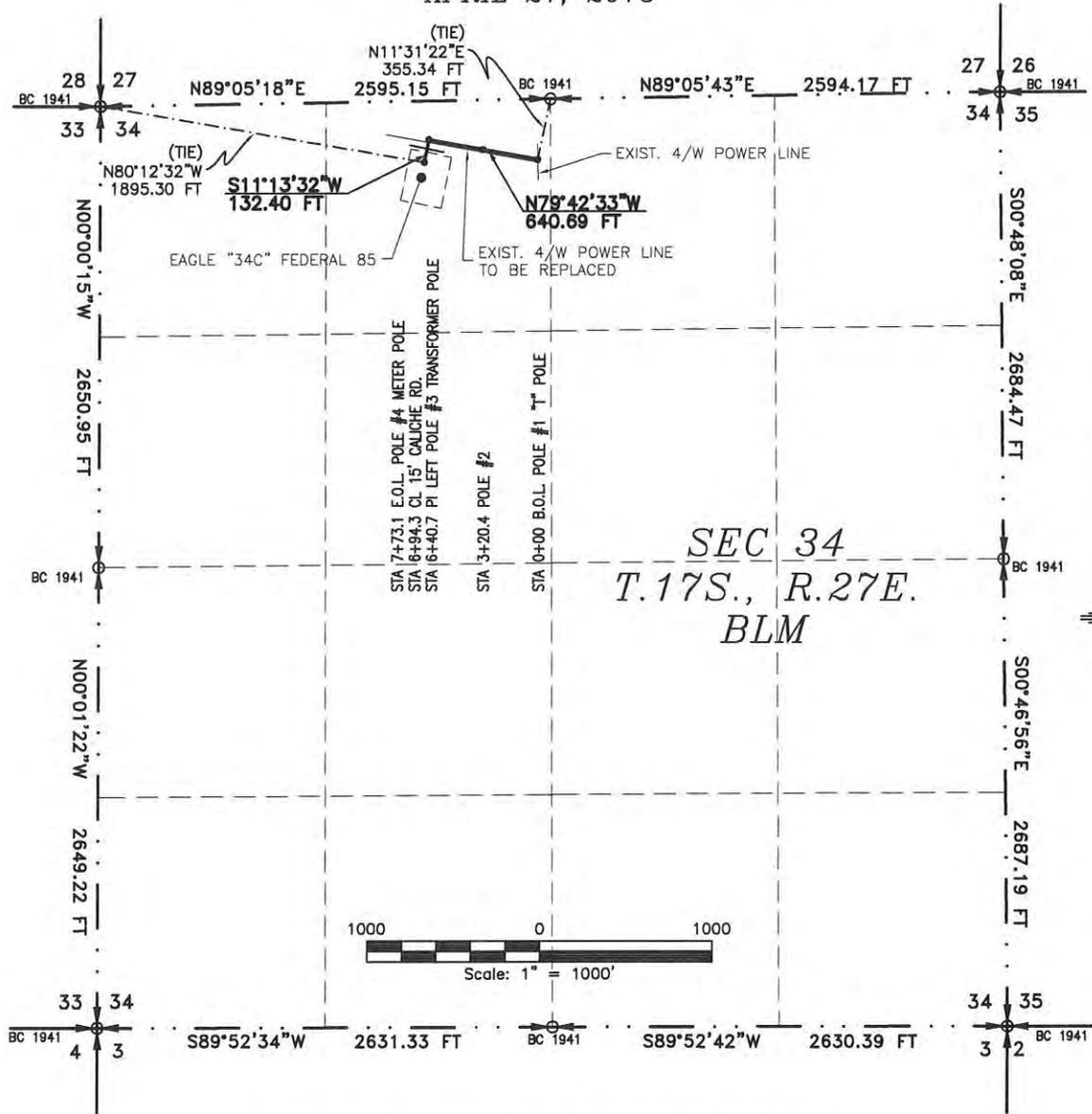
SURVEY NO. 3726

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

ELECTRIC LINE PLAT

ELECTRIC LINE TO CONNECT THE EAGLE "34C" FEDERAL 85

LIME ROCK RESOURCES II-A, L.P.
 CENTERLINE SURVEY OF AN ELECTRIC LINE CROSSING
 SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO
 APRIL 21, 2015



SEE NEXT SHEET (2-4) FOR DESCRIPTION

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 21 DAY OF MAY 2015

Filimon F. Jaramillo
 FILIMON F. JARAMILLO PLS. 12797

MADRON SURVEYING, INC.
 301 SOUTH CANAL
 CARLSBAD, NEW MEXICO 88220
 Phone (575) 234-3341

GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING IS NMSP EAST MODIFIED TO SURFACE COORDINATES.

SHEET: 1-4

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO SURVEY NO. 3726A

ELECTRIC LINE PLAT

ELECTRIC LINE TO CONNECT THE EAGLE "34C" FEDERAL 85

**LIME ROCK RESOURCES II-A, L.P.
CENTERLINE SURVEY OF AN ELECTRIC LINE CROSSING
SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
APRIL 21, 2015**

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE NE/4 NW/4 OF SAID SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M., WHENCE THE NORTH QUARTER CORNER OF SAID SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M. BEARS N11°31'22"E, A DISTANCE OF 355.34 FEET;

THENCE N79°42'33"W A DISTANCE OF 640.69 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;

THENCE S11°13'32"W A DISTANCE OF 132.40 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE NORTHWEST CORNER OF SAID SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M. BEARS N80°12'32"W, A DISTANCE OF 1895.30 FEET;

SAID STRIP OF LAND BEING 773.09 FEET OR 46.85 RODS IN LENGTH, CONTAINING 0.532 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NE/4 NW/4 773.09 L.F. 46.85 RODS 0.532 ACRES

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 25 DAY OF MAY 2015

Filimon F. Jaramillo
FILIMON F. JARAMILLO, PLS. 12797

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 3726A

GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING IS NMSP EAST MODIFIED TO SURFACE COORDINATES.

SHEET: 2-4

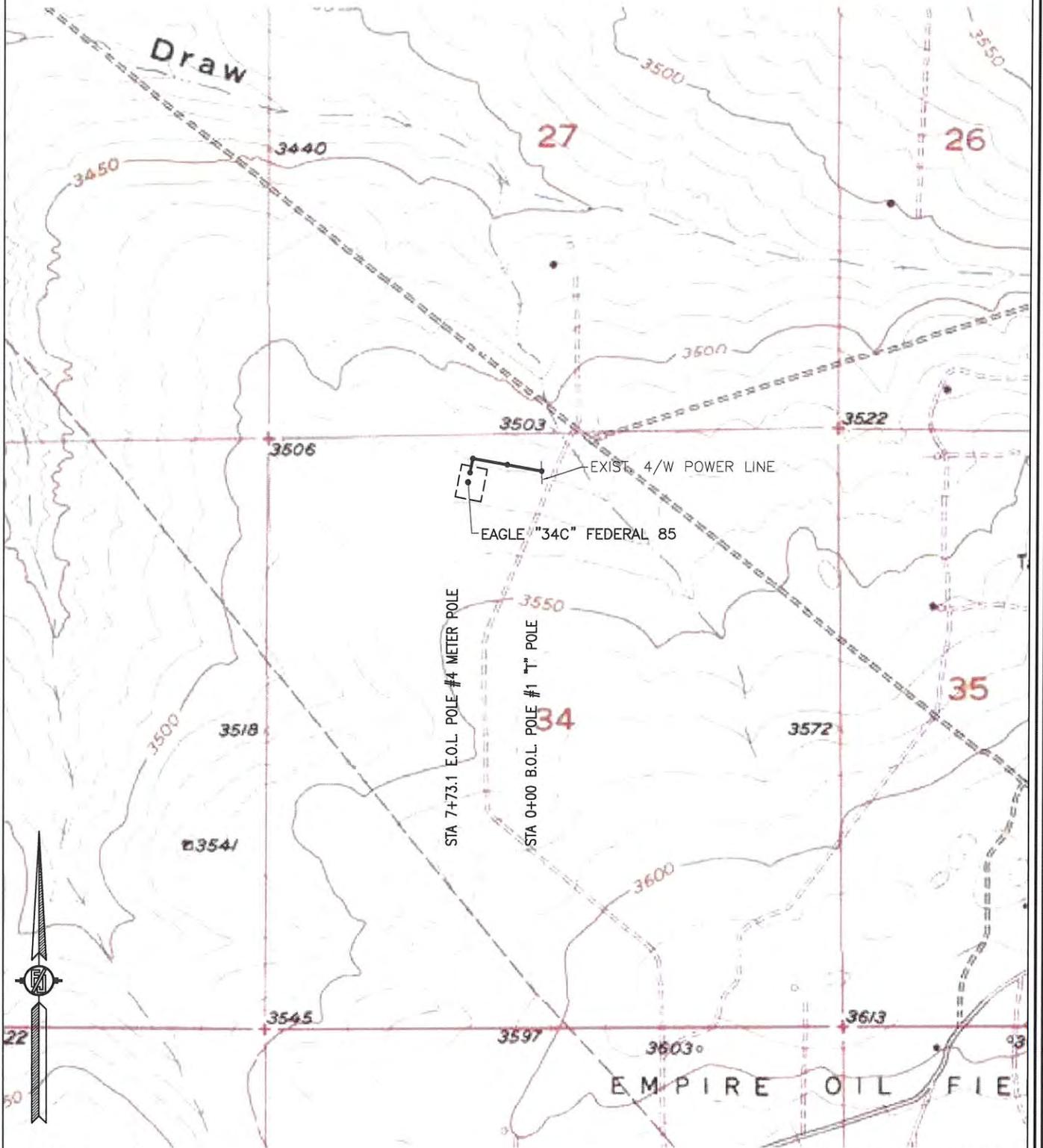
MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

301 SOUTH CANAL
(575) 234-3341

ELECTRIC LINE PLAT

ELECTRIC LINE TO CONNECT THE EAGLE "34C" FEDERAL 85

LIME ROCK RESOURCES II-A, L.P.
CENTERLINE SURVEY OF AN ELECTRIC LINE CROSSING
SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
APRIL 21, 2015



SHEET: 3-4

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SURVEY NO. 3726A

ELECTRIC LINE PLAT

ELECTRIC LINE TO CONNECT THE EAGLE "34C" FEDERAL 85

*LIME ROCK RESOURCES II-A, L.P.
CENTERLINE SURVEY OF AN ELECTRIC LINE CROSSING
SECTION 34, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
APRIL 21, 2015*



SHEET: 4-4

SURVEY NO. 3726A

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
(575) 234-3341

Appendix C



Lime Rock Resources II-A, L.P.

Proposed Eagle34 C Federal 85

Section 34, Township 17 South, Range 27 East, Eddy County, New Mexico

Plant Survey Report

Prepared by Robyn W. Tierney, Permits West, Inc., Santa Fe, New Mexico

May 8, 2016

INTRODUCTION

Lime Rock Resources II-A, L.P. (Lime Rock) proposes to drill a vertical oil well and construct 1527.8 feet of surface on-lease pipeline and 132.4 feet of overhead powerline (NMNM-096616). They also propose to rebuild 640.69 feet of overhead power line on Lease NMNM-098325.

The proposed project is located approximately 8 (air) miles southeast of Artesia, on federal surface lands managed by the Bureau of Land Management, Carlsbad Field Office (BLM-CFO), in the NE/§ NW/4, Section 34, Township 17 South, Range 27 East, Eddy County, New Mexico.

Purpose of this Report

This botanical survey report discusses the potential for disturbance to federal and state listed plant species and designated critical habitats protected under the Endangered Species Act (ESA, 16 USC 1531 et seq.) and the corresponding New Mexico State Endangered Plant Species List (EMNRD 2015) that have the potential to occur within Eddy County and the proposed Eagle 34 C Federal 85 project area.

An endangered plant species is one that is considered to be in danger of becoming extinct throughout all or a significant portion of its range. A threatened species is one that is likely to become endangered within the foreseeable future. The federal Endangered Species Act (ESA) protects these listed species from harm or “take” which is broadly defined as to “harass, harm, pursue, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.” Any such activity includes destruction of habitat and can be defined as a “take” even if it is unintentional or accidental. The U.S. Fish and Wildlife Service (USFWS) has jurisdiction over federally listed threatened and endangered plant species.

In addition to federally listed endangered and threatened species, which are legally protected under the ESA, the USFWS has developed a list of proposed and candidate species, species of concern, and

experimental populations. Proposed species are those species for which a proposed rule to list them as endangered or threatened has been published in the Federal Register; a designation that offers limited protection under the ESA. A candidate species is one for which the USFWS currently has enough information to support a proposal to list it as a threatened or endangered species under the Endangered Species Act (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing activities. A species of concern refers to a species that may be in decline or may require specific conservation actions. An experimental population is a reintroduced population established outside of its current range, but within its historical range and is treated as a proposed species. Candidate species, species of concern, and experimental populations are not afforded legal protection under the federal ESA or under Section 75-6-1 of the New Mexico Statutes Annotated (NMSA 1978).

The proposed project area was also surveyed for the potential presence of sensitive species identified from the New Mexico State Endangered Plant Species List (Section 75-6-1 NMSA 1978) and the New Mexico Bureau of Land Management State Office's (NMSO BLM) list of sensitive species, in accordance with BLM Manual 6840. Again, these species are not protected under the ESA, but are part of an overall effort by the BLM to focus management efforts toward maintaining habitats under a multiple use mandate.

Project Description

The project includes drilling a vertical oil well and constructing 1527.8 feet of on-lease three-inch surface poly pipeline and 132.4 feet of overhead powerline (NMNM-096616). Lime Rock also proposes to rebuild 640.69 feet of overhead power line on Lease NMNM-098325.

The well pad containing the Eagle 34 C Federal 85 well would consist of a 340-foot N/S by 300-foot E/W pad site (2.34 acres) with a 24-foot long access road extending north from the pad to an existing caliche road that runs along the north boundary of the proposed pad. A three-inch surface poly pipeline will be laid to extend west from the pad, then south by 1527.8-feet along an existing caliche road to a Central Tank Battery. A 132.4-foot long power line will also be built to extend north from the proposed well pad to an existing power line that runs along its north boundary. A portion of this existing overhead powerline (640.69-feet), also will be rebuilt as an overhead raptor safe 3-phase line. The proposed access road will be 20-feet wide and the poly line and power line construction corridors will be 15-foot wide.

Following interim reclamation, the well pad areas will be reduced in size on the east and south sides of the well pad, leaving a 180-foot x 180-foot or .74 acre area around the pump jack on the pad.

The proposed project is located on federal surface lands managed by BLM-CFO, in the NE/§ NW/4, Section 34, Township 17 South, Range 27 East, Eddy County, New Mexico Spring Lake, NM, 7.5 minute USGS quadrangle) in an area containing transitional deposits of the Orchard Park terrace, eolian dunes and gypsum flats (NMBGMR 2011). The elevation of the project area is 3,524 feet. Disturbances in and around the project area include: an old pit located west of the proposed pad, extensive livestock

grazing, existing well pads to the east and west of the proposed pad,, and caliche roads on the north and west boundaries of the proposed pad.

The project area is located in the Pecos Valley subsection of the Southern Great Plains physiographic province. The Pecos River alluvial valley runs north to south, approximately three-quarters of a mile west of the project area. The surface geology of the project area is predominantly made up of the Orchard Park terrace alluvial deposits, which is comprised of gravels and pebbles of dolomite, limestone, sandstone, chert, and quartz overlying and co-mingled with deposits of pedogenic carbonates (NMBGMR 2011).

No perennial streams, alkali seeps, wetlands, or karstic features were observed within the immediate vicinity of the project area.

Soils throughout the project area are composed of the Gypsum land-Cottonwood complex, 0 to 3 percent slopes. Gypsum land soils are found on the shoulders and toeslopes of ridges and hills. They are comprised of residuum weathered from gypsum. Cottonwood soils are also found on shoulders and slopes of hills and ridges and comprised of residuum weathered from gypsum. A typical profile of the Cottonwood soils consists of a loam (0 to 8 inches), and bedrock (0 to 60 inches). These soils are well drained, with very low water storage capacity.

Vegetation in the project area is classified as Chihuahuan desert scrub (Brown et al. 1998, 2007). Dominant species observed throughout the project area included creosote (*Larrea tridentata*), gyp grama (*Bouteloua breviseta*), prickly pear cactus (*Opuntia* sp), and a variety of forbs including beeblossom (*Gaura cinerea*), purple nama (*Nama hispidum*), filaree (*Geranium cicutarum*), and hairy yellow flax (*Linum puberulum*). The area has been extensively grazed and the growth of grasses and forbs is limited across the entire project area. Grasses observed during the botanical survey included burrograss (*Schleropogon brevifolius*) and traces of perennial three-awn (*Aristida* sp.) and bush muhly (*Muhlenbergia porteri*).

METHODOLOGY

The proposed project area was surveyed on April 21, 2016 by botanist Robyn Tierney. Weather during the survey was clear and sunny with temperatures in the mid-70s°F. Prior to conducting the survey, databases identifying the Threatened and Endangered plant species and species of concern listed by the U.S. Fish and Wildlife Service's Information, Planning, and Conservation System (IPaC 2016), the State of New Mexico's Endangered Plant Species Program (EMNRD 2015), the New Mexico Rare Plant Technical Committee (NMRPTC 1999, revised 2015), and the New Mexico State Office, Bureau of Land Management (NMSO-BLM) were examined.

The pedestrian survey was conducted by walking a series of parallel belt transects spaced at 50 to 100-foot intervals, across the proposed well pad, overhead powerline corridor, and poly pipeline route. The purpose of the survey was to inspect for and to identify federally listed species and other species of concern. All plants observed in the project area were identified in order to provide a more complete

description of the project area’s environment. A list of the plants observed in the project area is included at the end of this report in Table 2.

SURVEY RESULTS

Species of Interest to the U.S. Fish and Wildlife Service (USFWS) and the State of New Mexico: This report discusses the potential for disturbance to the plant species of concern that may occur in Eddy County and the project area as identified by the U.S. Fish and Wildlife Service’s Information, Planning, and Conservation System (IPaC 2016), the BLM , and the State of New Mexico Endangered Plant Species Program (EMNRD 2015, NMRPTC 1999, revised 2015)

Details of the status, habitat, and the potential to occur in the project area for each of these species are presented in Table 1.

Table 1. Species of interest, status, habitat, and potential to occur in Eddy County and in the proposed Eagle 34 C Federal 85 project area (IPaC 2016, EMNRD 2015, NMRPTC 1999, revised 2015)

SPECIES STATUS	HABITAT	POTENTIAL TO OCCUR IN THE PROJECT AREA*
<p><i>Amsonia tharpii</i> Tharp’s blue-star</p> <p>USFWS: SoC</p> <p>State of New Mexico: E</p> <p>BLM: S</p>	<p>Occupies limestone and gypsum hills composed of sedimentary outcrops or alluvium derived from Upper Permian beds of the Rustler, Gatuña, and Castille Formations containing gypsum or Ogallala-like caliche fragments in Chihuahuan desert scrub communities; 3,100-3,500 ft. (NMRPTC 1999, Howard 2007, cited in Roth 2013).</p>	<p>Three known populations of this plant are located north, southwest, and southeast of the project area. No appropriate habitat</p>
<p><i>Anulocaulis leiosolenus</i> var. <i>gypsogenus</i> Pecos gyp ringstem</p> <p>USFWS: SoC</p> <p>State of New Mexico: SoC</p> <p>BLM: --</p>	<p>Species is confined to open gypsum outcrops and gypsum rich soils; 3,300 – 4,600 ft. (NMRPTC 1999).</p>	<p>Project area contains gypsic soils derived from outcrops. No plants were observed during the survey. Appropriate habitat</p>

SPECIES STATUS	HABITAT	POTENTIAL TO OCCUR IN THE PROJECT AREA*
<p><i>Aquilegia chaplinei</i> Chaplins columbine</p> <p>USFWS: SoC</p> <p>State of New Mexico: SoC</p> <p>BLM: S</p>	<p>Found near limestone seeps and springs in the montane scrub or riparian canyon bottoms of remote canyons; 4,700 – 5,500 ft. (NMRPTC 1999).</p>	<p>Project area is located in desert scrub and is nearly 1,000 feet lower than species elevational range. No appropriate habitat</p>
<p><i>Astragalus gypsodes</i> Gypsum milkvetch</p> <p>USFWS: SoC</p> <p>State of New Mexico: SoC</p> <p>BLM: S</p>	<p>Endemic to the gypsum flats and low gullied gypsic hills of the Castile Formation in Chihuahuan desert scrub; 3,500 – 4,000 ft. (NMRPTC 1999).</p>	<p>Project area is located in desert scrub and is located in shallow gypsic soils derived from Tanil and Salado formations. No appropriate habitat</p>
<p><i>Chaetopappa hersheyi</i> Hershey's cliff daisy</p> <p>USFWS: SoC</p> <p>State of New Mexico: SoC</p> <p>BLM: --</p>	<p>Endemic to steep canyons of the Guadalupe Mountains. Habitat consists of steep limestone cliffs in pinon-juniper woodland and Rocky Mountain montane coniferous forest communities; 5,000 ft. (NMRPTC 1999).</p>	<p>Project area is located in desert scrub and is nearly 2,000 feet lower than species elevational range. No appropriate habitat</p>
<p><i>Cirsium wrightii</i> Wright's marsh thistle</p> <p>USFWS: C</p> <p>State of New Mexico: E</p> <p>BLM: --</p>	<p>Obligate wetland species found in wet, alkaline soils of spring seeps and along the marshy edges of streams and ponds; (3,450 - 8,500 ft. (NMRPTC 1999).</p>	<p>Project area is located in desert scrub with no springs, seeps, or marshes. No appropriate habitat</p>

SPECIES STATUS	HABITAT	POTENTIAL TO OCCUR IN THE PROJECT AREA*
<p><i>Coryphantha robustispina</i> ssp. <i>scheeri</i> Scheer pincushion</p> <p>USFWS: C</p> <p>State of New Mexico: E</p> <p>BLM: S</p>	<p>Favors nearly level areas in desert grassland Chihuahuan desert scrub, usually found on gravelly or silty soils and occasionally on rocky limestone or gypseous benches or bajadas, 3,300 – 3,600 ft. (NMRPTC 1999).</p>	<p>Project area is located in desert scrub and is located in shallow gypsic soils derived from Tanil and Salado formations. No appropriate habitat</p>
<p><i>Dermatophyllum guadalupense</i> Guadalupe mesquite</p> <p>USFWS: SoC</p> <p>State of New Mexico: SoC</p> <p>BLM: S</p>	<p>Found in outcrops of pink, limy, fine-grained sandstone that is 1-2 percent gypsum by analysis with a surface pavement of limestone gravel and cobble, in Chihuahuan desert scrub and juniper savanna; 5,260 – 6,650 ft. (NMRPTC 1999).</p>	<p>Project area is nearly 2,000 feet lower than species elevational range. Only known Eddy County location straddles the Otero/Eddy county line and is limited to the Brokeoff Mountains and Upper Dog Canyon area of the Guadalupe Mountains in New Mexico and adjacent Culberson County, Texas (NMRPTC 1999) No appropriate habitat</p>
<p><i>Echinocereus fendleri</i> var. <i>kuenzleri</i> Kuenzler's hedgehog cactus</p> <p>USFWS: E</p> <p>State of New Mexico: E</p> <p>BLM: E</p>	<p>Found on gentle, gravelly to rocky slopes and benches on limestone or limy sandstone in Great Plains grassland, oak woodland, or pinon-juniper woodland at the north end of the Guadalupe Mountains; 5,200 – 6,600 ft. (NMRPTC 1999).</p>	<p>Project area is located in desert scrub and is nearly 3,000 feet lower than species elevational range. No appropriate habitat</p>

SPECIES STATUS	HABITAT	POTENTIAL TO OCCUR IN THE PROJECT AREA*
<p><i>Ericameria nauseosa</i> var. <i>texensis</i> Guadalupe rabbitbrush</p> <p>USFWS: SoC</p> <p>State of New Mexico: SoC</p> <p>BLM: --</p>	<p>Endemic to the Guadalupe-Brokeoff range of mountains, plant is found in crevices on faces of limestone cliffs and adjacent to boulders of canyon woodlands; less frequently in open gravel alluvium of stream beds in pinon-juniper woodland and Chihuahuan desert scrub; 4,900 – 7,000 ft. (NMRPTC 1999).</p>	<p>Project area is located nearly 3,000 feet lower than species elevational range. No appropriate habitat</p>
<p><i>Eriogonum gypsophilum</i> Gypsum wild buckwheat</p> <p>USFWS: T</p> <p>State of New Mexico: E</p> <p>BLM: T</p>	<p>Plant is restricted to almost pure gypsum that is sparsely vegetated with other gypsophilous plants; 3,280 – 3,600 ft. (NMRPTC 1999).</p>	<p>Project area is located in desert scrub and is located in shallow gypsic soils derived from Tanil and Salado formations. No appropriate habitat</p>
<p><i>Escobaria guadalupensis</i> Guadalupe pincushion cactus</p> <p>USFWS: SoC</p> <p>State of New Mexico: SoC</p> <p>BLM: --</p>	<p>Plant is found in cracks in limestone and rocky soils of broken terrain in open oak and pinon-juniper woodland, also in lower montane coniferous forest and Chihuahuan desert scrub; 5,200 – 7,200 ft. (NMRPTC 1999).</p>	<p>Project area is located in desert scrub and is nearly 2,000 feet lower than species elevational range. No appropriate habitat</p>
<p><i>Escobaria sneedii</i> var. <i>leei</i> Lee’s pincushion cactus</p> <p>USFWS: T</p> <p>State of New Mexico: E</p> <p>BLM: T</p>	<p>Plant is found in cracks in limestone in areas of broken terrain and steep slopes of Chihuahuan desert scrub of the Guadalupe Mountains; 4,000 – 5,000 ft. (NMRPTC 1999).</p>	<p>Project area is located in desert scrub and is nearly 1,000 feet lower than species elevational range. No appropriate habitat</p>

SPECIES STATUS	HABITAT	POTENTIAL TO OCCUR IN THE PROJECT AREA*
<p><i>Hedeoma apiculate</i> McKittrick pennyroyal</p> <p>USFWS: SoC</p> <p>State of New Mexico: SoC</p> <p>BLM: --</p>	<p>Endemic to the Guadalupe Mountains, plant is found in limestone crevices of steep canyon walls; usually on north-facing slopes or in areas that sheltered and relatively moist in the Guadalupe Mounains; 5,400 – 8,400 ft. (NMRPTC 1999).</p>	<p>Project area is located in desert scrub and is nearly 3,000 feet lower than species elevational range. No appropriate habitat</p>
<p><i>Hexalectris nitida</i> Shining crested coralroot</p> <p>USFWS: SoC</p> <p>State of New Mexico: E</p> <p>BLM: --</p>	<p>Plant is found in leaf litter under oaks in the deep canyons of the Guadalupe Mountains; 4,300 ft. (NMRPTC 1999).</p>	<p>Project area is located in desert scrub and is nearly 1,000 feet lower than species elevational range. No appropriate habitat</p>
<p><i>Hexalectris revoluta</i> Curly crested coralroot</p> <p>USFWS: SoC</p> <p>State of New Mexico: SoC</p> <p>BLM: S</p>	<p>Plant is found in heavy leaf litter under oaks or in thin humic soils among rock outcrops; 6,400 ft. (NMRPTC 1999).</p>	<p>Project area is located in desert scrub and is nearly 1,000 feet lower than species elevational range. No appropriate habitat</p>
<p><i>Justicia wrightii</i> Wright’s justicia</p> <p>USFWS: SoC</p> <p>State of New Mexico: SoC</p> <p>BLM: --</p>	<p>Found in dry, gravelly clay soils over limestone on flats or on limestone benches on low hills in Chihuahuan desert scruband and shortgrass grasslands; 3,900 ft. (NMRPTC 1999, Poole et al. 2007).</p>	<p>Project area is located in desert scrub dominated by gypsic soils derived from the TAnil and Salado formations and is not located on flats or on limestone benches. No appropriate habitat</p>

SPECIES STATUS	HABITAT	POTENTIAL TO OCCUR IN THE PROJECT AREA*
<p><i>Linum allredii</i> Allred's flax</p> <p>USFWS: SoC</p> <p>State of New Mexico: SoC</p> <p>BLM: S</p>	<p>Plant is found on scarps and hillsides on exposed pale sandy gypsum of the Castile Formation in Chihuahuan Desert scrub; 3,900 ft. (NMRPTC 1999).</p>	<p>Project area is located in desert scrub and is located in gypsic soils derived from the Tanil and Salado Formations with no scarps or outcrops. No plants were observed, though congener <i>Linum puberulum</i> was observed.</p> <p>No appropriate habitat</p>
<p><i>Muhlenbergia villiflora</i> var. <i>villosa</i> Hairy muhly</p> <p>USFWS: SoC</p> <p>State of New Mexico: SoC</p> <p>BLM: --</p>	<p>Found in open desert grassland and desert savanna on alkaline and calcareous soils; 4,800 – 5,200 ft. (NMRPTC 1999).</p>	<p>Project area is located in desert scrub and is nearly 1,000 feet lower than species elevational range. No appropriate habitat</p>
<p><i>Nama xylopodum</i> Cliff nama</p> <p>USFWS: SoC</p> <p>State of New Mexico: SoC</p> <p>BLM:</p>	<p>Found in partly shaded limestone cliffs and outcrops in montane scrub to pinon-juniper oak woodlands of the Guadalupe Mountains; 4,500 – 6,500 ft. (NMRPTC 1999).</p>	<p>Project area is located in desert scrub and is nearly 1,500 feet lower than species elevational range. No appropriate habitat</p>
<p><i>Penstemon cardinalis</i> ssp. <i>regalis</i> Guadalupe penstemon</p> <p>USFWS: SoC</p> <p>State of New Mexico: SoC</p> <p>BLM: S</p>	<p>Plant is found on limestone slopes and canyon bottoms in montane scrub, pinon-juniper woodlands, and lower montane coniferous forests; 4,500 – 6,000 ft. (NMRPTC 1999).</p>	<p>Project area is located in desert scrub and is nearly 1,500 feet lower than species elevational range. No appropriate habitat</p>

SPECIES STATUS	HABITAT	POTENTIAL TO OCCUR IN THE PROJECT AREA*
<p><i>Perityle quinqueflora</i> Five-flowered rock daisy</p> <p>USFWS: SoC</p> <p>State of New Mexico: SoC</p> <p>BLM: --</p>	<p>Plant is found in crevices of limestone bluffs, cliffs in high canyons and caprock; 5,000 – 6,000 ft. (NMRPTC 1999).</p>	<p>Project area is located in desert scrub and is nearly 2,000 feet lower than species elevational range. No appropriate habitat</p>
<p><i>Polygala rimulicola</i> var. <i>rimulicola</i> Guadalupe milkwort</p> <p>USFWS: SoC</p> <p>State of New Mexico: SoC</p> <p>BLM: --</p>	<p>Plant is found in cool crevices of limestone cliffs in montane coniferous forests; 5,000 – 8,000 ft. (NMRPTC 1999).</p>	<p>Project area is located in desert scrub and is nearly 2,500 feet lower than species elevational range. No appropriate habitat</p>
<p><i>Salvia summa</i> Supreme sage</p> <p>USFWS: SoC</p> <p>State of New Mexico: SoC</p> <p>BLM: --</p>	<p>Restricted to partly shaded limestone cliffs in the Guadalupe mountains; 5,000 – 7,000 ft. (NMRPTC 1999).</p>	<p>Project area is located in desert scrub and is nearly 2,500 feet lower than species elevational range. No appropriate habitat</p>
<p><i>Solidago wrightii</i> var. <i>guadalupeensis</i> Guadalupe Mountains goldenrod</p> <p>USFWS: SoC</p> <p>State of New Mexico: SoC</p> <p>BLM: --</p>	<p>Plant is found on limestone outcrops and substrates and is most commonly associated with acacia-juniperus-dasyliirion-lechuguilla, oak, oak-maple, and yellow pine-maple-hophornbeam-madrone vegetation types of the Guadalupe Mountains; 4,300 – 7,100 ft. (NMRPTC 1999).</p>	<p>Project area is located in desert scrub and is nearly 1,500 feet lower than species elevational range. No appropriate habitat</p>

SPECIES STATUS	HABITAT	POTENTIAL TO OCCUR IN THE PROJECT AREA*
<i>Streptanthus sparsiflorus</i> Guadalupe jewelflower USFWS: SoC State of New Mexico: SoC BLM: S	Found in rugged limestone canyon bottoms and montane scrub; 5,000 – 7,000 ft. (NMRPTC 1999).	Project area is located in desert scrub and is nearly 2,500 feet lower than species elevational range. No appropriate habitat
<i>Valeriana texana</i> Texas tobacco-root USFWS: SoC State of New Mexico: SoC BLM: --	Plant is found in shaded, moist limestone or igneous cliffs, occasionally in canyon bottoms and in boulder fields in creek bottoms, within pinon-juniper woodland and montane coniferous forest; 5,200 – 8,000 ft. (NMRPTC 1999).	Project area is located in desert scrub and is nearly 2,500 feet lower than species elevational range. No appropriate habitat

Status USFWS – U.S Fish and Wildlife Service (federal) and New Mexico (state) listed species: Endangered (E) – An animal or plant species in danger of extinction throughout all or a significant portion of its range. Threatened (T) – An animal or plant species likely to become endangered within the foreseeable future throughout all or a significant portion of its range. Candidate (C) - Candidate species are plants and animals for which the U.S. Fish and Wildlife Service (FWS) has sufficient information on their biological status and threats to propose them as endangered or threatened under the Endangered Species Act (ESA), but for which development of a proposed listing regulation is precluded by other higher priority listing activities. Sensitive (S) and Species of Concern (SoC)

The project area does contain suitable habitat consisting of “open gypsum outcrops and gypsum rich soils” for Pecos gyp ringstem (*Anulocaulis leiosolenus* var. *gypsogenus*), a federal and state species of concern. However, the proposed project area has been extensively grazed and no ringstem plants were observed during the survey. Thus, the proposed project may impact isolated individuals or marginally suitable habitat, but would not likely contribute to a trend towards federal listing or cause a loss of viability to the Pecos gyp ringstem population or species as a whole.

No federal or state listed plant species were observed in the project area (IPaC 2016, EMNRD 2015, NMRPTC 1999, revised 2015).

No BLM plant species of concern were observed in the project area.

Plant species that were observed during the survey are listed in Table 2 below. Plant identifications are based on a variety of sources including: Poole et al. (2007) Rare Plants of Texas and the herbarium database from holdings in the Centennial Museum, University of Texas, El Paso (Centennial Museum, UTEP 2015). Scientific names are from these sources and the USDA Plants Database (2016).

Table 2. Plants observed in the vicinity of the proposed Eagle 34 C Federal 85 project area

Scientific Name	Common Name
Shrubs and Subshrubs	
<i>Larrea tridentata</i>	Creosote
Grasses and Grass-like Plants	
<i>Aristida</i> sp.	Perennial three-awn
<i>Bouteloua reverchonii</i>	Gyp grama
<i>Muhlenbergia porteri</i>	Bush muhly
<i>Pleuraphis mutica</i>	Tobosa
<i>Schleropogon brevifolius</i>	Burrograss
<i>Setaria reverchonii</i>	Bristle panicum
Cactus	
<i>Opuntia</i> sp.	Prickly pear sp.
Forbs	
<i>Bidens</i> sp.	Catseye sp.
<i>Gaura cinerea</i>	Beeblossom
<i>Dimorphocarpa</i> sp.	Spectacle pod
<i>Geranium cucuatrum</i>	Filaree
<i>Linum puberulum</i>	Hairy golden flax
<i>Nanum hispidum</i>	Pueple nanum
<i>Phacelia integrifolia</i>	Scorpionweed
<i>Senecio faccidus</i>	Threadleaf groundsel

No perennial streams, alkali seeps or wetlands were recorded in the immediate area of the project line (USFWS 2015, National Wetlands Inventory) and none were observed within the boundaries of the two well pads, central tank battery, gas pipeline corridor, power line corridor, two proposed access roads, or buffer zones around these features.

No noxious weed species listed by the New Mexico Department of Agriculture (NMDA, Gonzales 2009), were observed in the proposed project area.

DISCUSSION

The U.S. Fish and Wildlife Service’s Information, Planning, and Conservation System (IPaC 2016) the State of New Mexico (EMNRD 2015)), and the New Mexico Rare Plant Technical Committee (NMRPTC 1999, revised 2015) list 27 Threatened, Endangered or species of concern in the project area or Eddy County, New Mexico. No federal or state listed plant species or suitable habitats for 26 of these species were observed in the project area (IPaC 2016, EMNRD 2015, NMRPTC 1999, revised 2015).

The project area does contain suitable habitat consisting of “open gypsum outcrops and gypsum rich soils” for Pecos gyp ringstem (*Anulocaulis leiosolenus* var. *gypsogenus*), a federal and state species of concern. However, the proposed project area has been extensively grazed and no ringstem plants were observed during the survey. Thus, the proposed project may impact isolated individuals or marginally suitable habitat, but would not likely contribute to a trend towards federal listing or cause a loss of viability to the Pecos gyp ringstem population or species as a whole.

No BLM plant species of concern were observed in the project area.

The proposed Eagle 34 C Federal 85 project would have no effect on any federally listed threatened or endangered plant species. . In addition, no critical habitat occurs within or near the proposed project and the proposed project would not modify existing or proposed critical habitat. Therefore no USFWS consultation is necessary for this project.

RECOMMENDATIONS

- Earth-moving equipment should be washed prior to being brought onto the site to help prevent the introduction of noxious weeds to the project area.
- To limit any impacts to vegetation and to protect any threatened or endangered species;, including Scheer’s cactus, that were not observed during the April 21, 2016 field survey, workers would be instructed not to park off existing roads or previously disturbed areas.
- Topsoil stockpiles within the project area will be exposed during development and expansion of the well pads and associated reserve pits. The project area will be subject to erosion while soils remain bare. Surface disturbance will exceed one acre and the project will require a Storm Water Pollution Prevention Plan (SWPPP).
- Upon completion of the project, successful reclamation of the project area should include clean-up of all materials and equipment. Revegetation of the project area should include use of certified weed-free native seed mixes approved by the BLM Carlsbad Field Office that are compatible with wildlife habitat requirements and the project area’s current land use of rangeland.

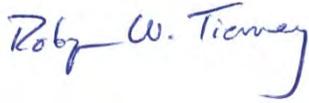
CONCLUSIONS

The proposed Eagle 34 C Federal 85 project would have no effect on federal or state listed threatened or endangered plant species.

No critical habitat occurs within or near the proposed project and the proposed project would not modify existing or proposed critical habitat. Therefore no USFWS consultation is necessary for this project.

Report Preparer and Certification

The results and conclusions contained in this report represent my best professional judgment and are based on actual field examination, information provided by the project proponent, applicable agencies, and other sources.



Signature of Author:

Robyn W. Tierney

April 22, 2016
Permits West, Inc.
37 Verano Loop
Santa Fe, NM 87508
(505) 466-8120

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Appendix D



Lime Rock Resources II-A, L.P.

Proposed Eagle34 C Federal 85

Section 34, Township 17 South, Range 27 East, Eddy County, New Mexico

Threatened, Endangered, and Special Status Wildlife Species Report

Prepared by Charles Black, Permits West, Inc., Santa Fe, New Mexico

May 8, 2016

INTRODUCTION

Lime Rock Resources II-A., L.P. (Lime Rock) proposes to drill a vertical oil well and construct 1527.8 feet of surface on-lease pipeline and 132.4 feet of overhead powerline (NMNM-096616). They also propose to rebuild 640.69 feet of overhead power line on Lease NMNM-098325.

The proposed project is located approximately 8 (air) miles southeast of Artesia, on federal surface lands managed by the Bureau of Land Management, Carlsbad Field Office (BLM-CFO), in the NE/§ NW/4, Section 34, Township 17 South, Range 27 East, Eddy County, New Mexico.

This wildlife survey report discusses the potential effects of approving the Application for Permit to Drill and rights-of-way applications for the new access road, surface pipeline on-lease right-of-way and overhead power line to federal listed wildlife species and designated critical habitats that may occur within Eddy County and are protected under the Endangered Species Act (ESA, 16 USC 1531 et seq.), the Migratory Bird Treaty Act of 1918 (MBTA; 16 U.S.C. 703-712) and the Bald and Golden Eagle Protection Act of 1940 (BGEPA; 16 U.S.C. 668-668c).

METHODS

Prior to the field surveys, the following databases were reviewed:

- U.S. Fish and Wildlife Service (USFWS IPaC 2016) *Listed and Sensitive Species in Eddy County* (downloaded and reviewed April 20, 2016)
- New Mexico Department of Game and Fish *Biota Information System of New Mexico* (BISON-M), 2016. *Threatened, Endangered, and Sensitive Wildlife Species for Eddy County, New Mexico* (downloaded and reviewed April 20, 2016)

On April 21, 2016, Wildlife Biologist Charles Black conducted a pedestrian survey of the project area to inspect for the potential presence of threatened, endangered, or special status species. Weather during the survey was clear and windy, with daytime highs around 70 °F.

The surveyed area consisted of evaluating the well pad and a 50-foot buffer around the proposed access road, the proposed pipeline and a 20-foot wide existing overhead powerline right-of-way corridor on the north side of the proposed well pad. A 0.5-mile radius around the project area also was surveyed for raptor nests by the surveyor using 10 X 40 binoculars.

Description of Existing Habitat

Topography at the site is gently sloped to the northeast. Most of the terrain in the project area is dominated by a crust-like (dolomitic) soil substrate. The project area is located approximately one mile east of the Pecos River floodplain. No effect to the Pecos River floodplain is anticipated from the proposed project.

Vegetation is dominated by degraded Chihuahuan desert shrubland. Dominant shrubs included creosote bush (*Larrea tridentata*) and grasses and forbs in the sandier. Grass cover is low to moderate. The project area is 3400 to 3460 feet in elevation. Wildlife occurring in the area is typical of degraded, brush encroached grasslands and scrublands of the Chihuahuan Desert. This includes passerines such as Black-throated sparrows (*Amphispiza bileanata*), Brewer’s sparrows (*Spizella breweri*), as well as jackrabbits (*Lepus spp.*), and whiptail lizards (*Cnemidophorus spp.*).

**Threatened, Endangered, and Special Status Wildlife Species
Federal Endangered, Threatened and Special Status Species**

The following table (Table 1) discusses Federal and State of New Mexico Endangered, Threatened species of Eddy County with the potential to occur at or near the project area.

Species	Status	Habitat	Potential to Occur in Project Area*
Northern Aplomado Falcon (<i>Falco femoralis septentrionalis</i>)	Federal Endangered /Experimental Population	Formerly A resident in Chihuahuan Desert grasslandS, now rare. An experimental reintroduction program is being conducted in Sierra County, New Mexico	NP-see discussion
Lesser Prairie- Chicken (<i>Thympanuchus pallidicinctus</i>)	USFWS Threatened	This species is obligate to shinery oak (<i>Quercus harvardii</i>) stands in sand dunes	NP-see discussion
Sprague’s pipit (<i>Anthus spragueii</i>)	Federal Candidate	Migrates and occasionally overwinters in grassland areas of southeastern New Mexico	NS-See discussion

*Potential to Occur in Project Area

K - Known, documented observation within project area
 S - Habitat suitable and species suspected to occur within the project area
 NS - Habitat suitable but species is not suspected to occur within the project area
 NP - Habitat not present and species unlikely to occur within the project area

State of New Mexico, Threatened and Special Status Species

Table 2, below, discusses State Threatened and special status species of Eddy County with the potential to occur at or near the project area.

Species	Status	Habitat	Potential to Occur in Project Area*
Baird’s sparrow (<i>Ammodrammus bairdi</i>)	NM State Threatened	Migrates and occasionally overwinters in grassland areas of southeastern New Mexico	NS-See discussion
Loggerhead shrike (<i>Lanius ludovicianus</i>)	NM State Sensitive taxa	Widespread; occurs within Chihuahuan Desert shrublands	S-See discussion
Dune Sagebrush Lizard (<i>Sceloporus arenicolus</i>)	NM State Threatened	Occurs only the shinary /sand dune habitats, generally requires deep dune fields	NS-See discussion
Swift fox (<i>Vulpes velox</i>)	NM State Sensitive taxa	Occurs in mesa country and grasslands of NE New Mexico	S-See discussion

***Potential to Occur in Project Area**

K - Known, documented observation within project area
 S - Habitat suitable and species suspected to occur within the project area
 NS - Habitat suitable but species is not suspected to occur within the project area
 NP - Habitat not present and species unlikely to occur within the project area

Discussion

Northern Aplomado Falcon

This raptor was formerly a resident in Chihuahuan Desert grasslands of southern New Mexico. It is currently very rare in terms of its natural occurrence. A reintroduction of this species occurred in 2005 at the Armendariz Ranch in Sierra County, New Mexico. The release site is approximately 150 miles to the west of the proposed well site. Historic populations of this species require large expanses of continuous desert grasslands with sporadic large, fire-resistant yucca stands for nest sites. Grassland habitat at the proposed site is far too degraded to be suitable falcon habitat and sufficient yucca stands are entirely lacking.

Lesser Prairie Chicken

This species requires monotypic stands of shiner oak in sand dune habitat. In recent decades, this vegetation type has receded in southern Lea and Eddy counties due to fragmentation and desertification. Based on wildlife surveys, the habitat present at the site is not suitable for Prairie chickens.

No suitable habitat is located at or near the proposed site.

Sprague's Pipit

This grassland passerine migrates through grassland areas of eastern New Mexico where it occasionally overwinters. Pipits typically migrate through southeastern New Mexico in March and April (spring), and August-early September (fall). It could potentially occur in the project area, although the habitat in the area is marginal. Given the rarity of the species, and the small size of the proposed disturbance, this species should not be adversely impacted by the proposed project.

Baird's Sparrow

This grassland sparrow migrates through grassland areas in eastern New Mexico. It could potentially occur in the project area, although the habitat within the project area is marginal. Baird's sparrows are rare, but scarcity of credible reports may be due to the furtive nature of the species. Baird's Sparrows migrate through southeastern New Mexico in March and April (spring), and August-early September (fall). Given the rarity of the species, and the small size of the proposed disturbance, this species should not be adversely impacted by the proposed project.

Loggerhead Shrike

This species is widespread and common throughout Chihuahuan desert shrublands of southeastern New Mexico. Given the common occurrence of the species, and the small size of the proposed disturbance, this species should not be adversely impacted by the proposed project.

Dune Sagebrush Lizard

This species generally requires deep sand dunes within the shiner oak community. Based on this wildlife survey, the habitat present at the site is not suitable for lizards, as there are no dunes or stands of oak in the project area. Given the unsuitable habitat and the small size of the proposed disturbance, this species should not be adversely impacted by the proposed project.

Swift Fox

This species could potentially occur in the project area. No potential fox burrows were observed in the project area. Given the small size of the proposed disturbance, this species should not be adversely impacted by the proposed project.

Wildlife Species Observed on April 21, 2016

Avian Species

Scaled quail (*Callipepla squamata*)
Chihuahuan raven (*Corvus cryptoleucus*)
Black-throated sparrow (*Amphispiza bilineata*)
Cassin's sparrow (*Aimophila cassinii*)
Sagebrush sparrow (*Amphispiza belli*)
Eastern meadowlark (*Sturnella magna*)

Mammalian species

Coyote (*Canis latrans*)

Mammalian observations were generally made from tracks, scat, and other sign.

Recommendations

There are no recommendations regarding wildlife in association with the proposed project.

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