

**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

AUG 07 2017

Revised August 1, 2011

Submit one copy to appropriate

RECEIVED

District Office

☐ AMENDED REPORT

## WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number 30-015-44372	<sup>2</sup> Pool Code 98199	<sup>3</sup> Pool Name PARKWAY; BONE SPRING, WEST
<sup>4</sup> Property Code 317515	<sup>5</sup> Property Name ONYX PWU 29-28	<sup>6</sup> Well Number 11H
<sup>7</sup> OGRID No. 6137	<sup>8</sup> Operator Name DEVON ENERGY PRODUCTION COMPANY, L.P.	<sup>9</sup> Elevation 3310.0

## <sup>10</sup> Surface Location

UL. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	29	19 S	29 E		2295	SOUTH	380	WEST	EDDY

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no. <b>K</b>	Section <b>28</b>	Township <b>19 S</b>	Range <b>29 E</b>	Lot Idn	Feet from the <b>2200</b>	North/South line <b>SOUTH</b>	Feet from the	East/West line <b>WEST</b>	County <b>EDDY</b>
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<sup>12</sup> Dedicated Acres <b>640</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No. <b>R-14188</b>
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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.

NW CORNER SEC. 29  
 LAT. = 32.6391287°N  
 LONG. = 104.1055996°W  
 NWSP EAST (FT)  
 N = 596321.06  
 E = 611438.23

N Q CORNER SEC. 29  
 LAT. = 32.6390910°N  
 LONG. = 104.0869787°W  
 NWSP EAST (FT)  
 N = 596313.14  
 E = 614091.64

NE CORNER SEC. 29  
 LAT. = 32.6390699°N  
 LONG. = 104.0883927°W  
 NWSP EAST (FT)  
 N = 596311.43  
 E = 616734.90

N Q CORNER SEC. 28  
 LAT. = 32.6390356°N  
 LONG. = 104.0798187°W  
 NWSP EAST (FT)  
 N = 596305.14  
 E = 619374.13

NE CORNER SEC. 28  
 LAT. = 32.6390370°N  
 LONG. = 104.0712463°W  
 NWSP EAST (FT)  
 N = 596312.05  
 E = 622012.94

S89°49'44"E 2654.06 FT  
 S89°57'47"E 2643.31 FT  
 S89°51'49"E 2639.88 FT  
 N89°51'00"E 2639.46 FT

ONTX PWU 29-28 11H  
 ELEV. = 3310.0'  
 LAT. = 32.6309006°N (NAD83)  
 LONG. = 104.1043474°W  
 NWSP EAST (FT)  
 N = 593328.44  
 E = 611830.14

SURFACE LOCATION  
 380'

NOTE:  
 LATITUDE AND LONGITUDE COORDINATES ARE  
 SHOWN USING THE NORTH AMERICAN DATUM  
 OF 1983 (NAD83) LISTED NEW MEXICO STATE  
 PLANE EAST COORDINATES ARE GRID (NAD83).  
 BASIS OF BEARING AND DISTANCES USED ARE  
 NEW MEXICO STATE PLANE EAST COORDINATES  
 MODIFIED TO THE SURFACE VERTICAL DATUM  
 NAVD83

SW CORNER SEC. 29  
 LAT. = 32.6245965°N  
 LONG. = 104.1055679°W  
 NWSP EAST (FT)  
 N = 591034.18  
 E = 611459.34

S Q CORNER SEC. 29  
 LAT. = 32.6245766°N  
 LONG. = 104.0969987°W  
 NWSP EAST (FT)  
 N = 591032.71  
 E = 614097.52

SE CORNER SEC. 29  
 LAT. = 32.6245465°N  
 LONG. = 104.0884191°W  
 NWSP EAST (FT)  
 N = 591027.73  
 E = 616739.26

SE CORNER SEC. 28  
 LAT. = 32.6244740°N  
 LONG. = 104.0713099°W  
 NWSP EAST (FT)  
 N = 591013.90  
 E = 622006.42

S89°58'05"W 2638.83 FT  
 N89°53'32"W 2642.38 FT  
 N89°50'58"W 2634.23 FT  
 N89°50'58"W 2634.23 FT

BOTTOM OF HOLE  
 2200'  
 BOTTOM OF HOLE  
 LAT. = 32.6305563°N  
 LONG. = 104.0798608°W  
 NWSP EAST (FT)  
 N = 593299.36  
 E = 619368.58

DNF  
 2630'  
 2200'  
 DNF

Project Area  
 Producing Area 330' from Exterior

**18 OPERATOR CERTIFICATION**  
 I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division:

Signature: Erin Workman 08/07/2017  
 Date

**Erin Workman**  
 Printed Name  
**Erin.workman@dvn.com**  
 E-mail Address

**18 SURVEYOR CERTIFICATION**  
 I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

JULY 15, 2017  
 Date of Survey

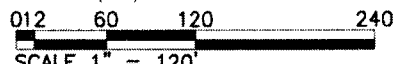
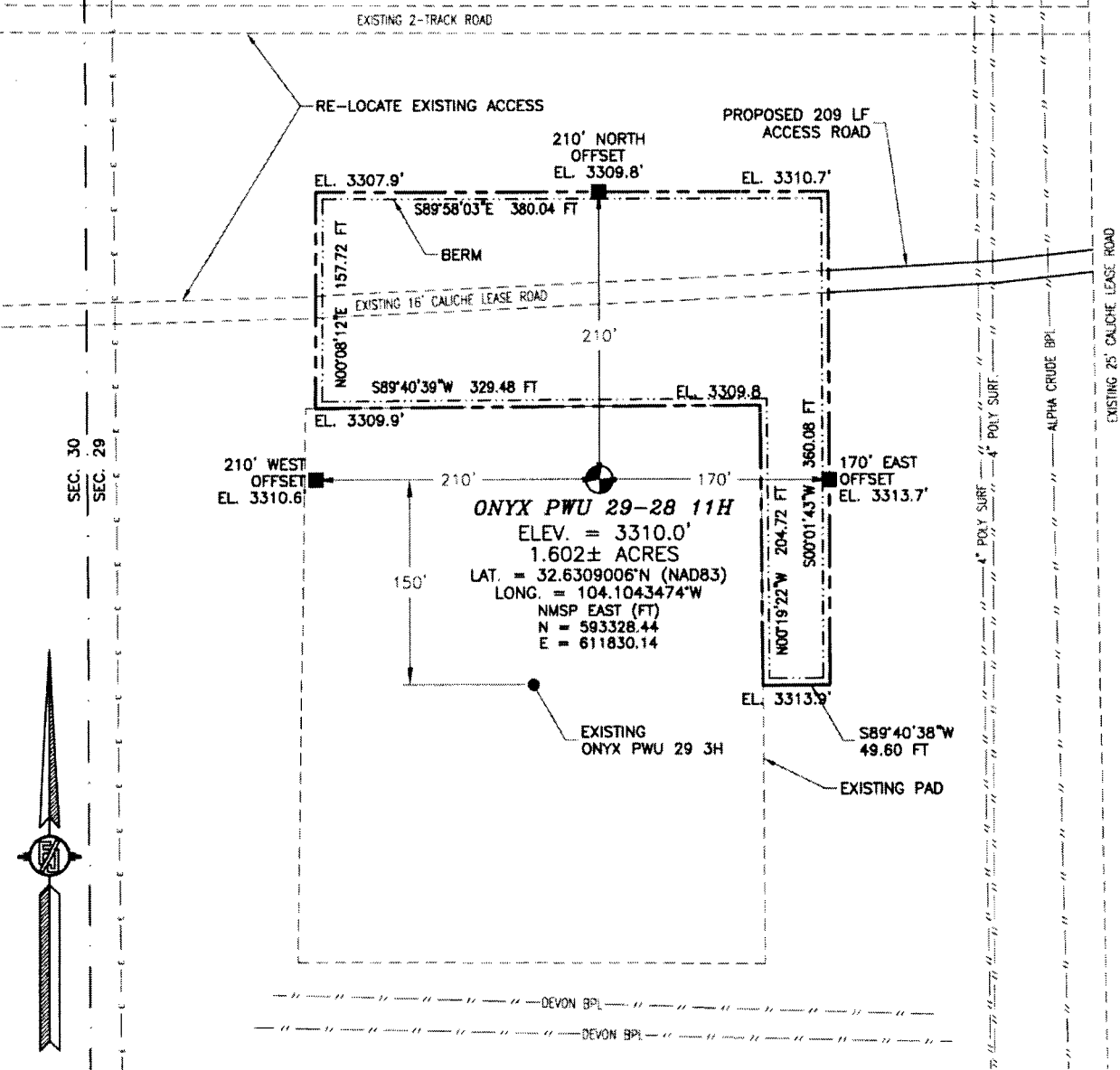
Signature and Seal of Professional Surveyor: [Signature]  
 Certificate Number: FILIMON E. JARAMILLO, PLS 12797  
 SURVEY NO. 5213

8-8-17

SECTION 29, TOWNSHIP 19 SOUTH, RANGE 29 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 1983 (NAD83). LISTED NEW MEXICO STATE PLANE EAST COORDINATES ARE GRID (NAD83). BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE. VERTICAL DATUM NAVD88.



**DIRECTIONS TO LOCATION**

FROM THE INTERSECTION OF CR 206 (ILLINOIS CAMP ROAD) AND CR 235 (CURRY COMBS ROAD) GO SOUTHEAST & EAST ON CR 235 APPROX. 8.5 MILES TO A LEASE ROAD ON RIGHT (SOUTH) TURN SOUTH ON LEASE ROAD GO APPROX. 1.9 MILES TO EXISTING LEASE ROAD ON RIGHT (WEST) GO WEST 209' TO THE EAST EDGE OF PAD FOR THIS LOCATION.

**DEVON ENERGY PRODUCTION COMPANY, L.P.**  
**ONYX PWU 29-28 11H**  
LOCATED 2295 FT. FROM THE SOUTH LINE  
AND 380 FT. FROM THE WEST LINE OF  
SECTION 29, TOWNSHIP 19 SOUTH,  
RANGE 29 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO

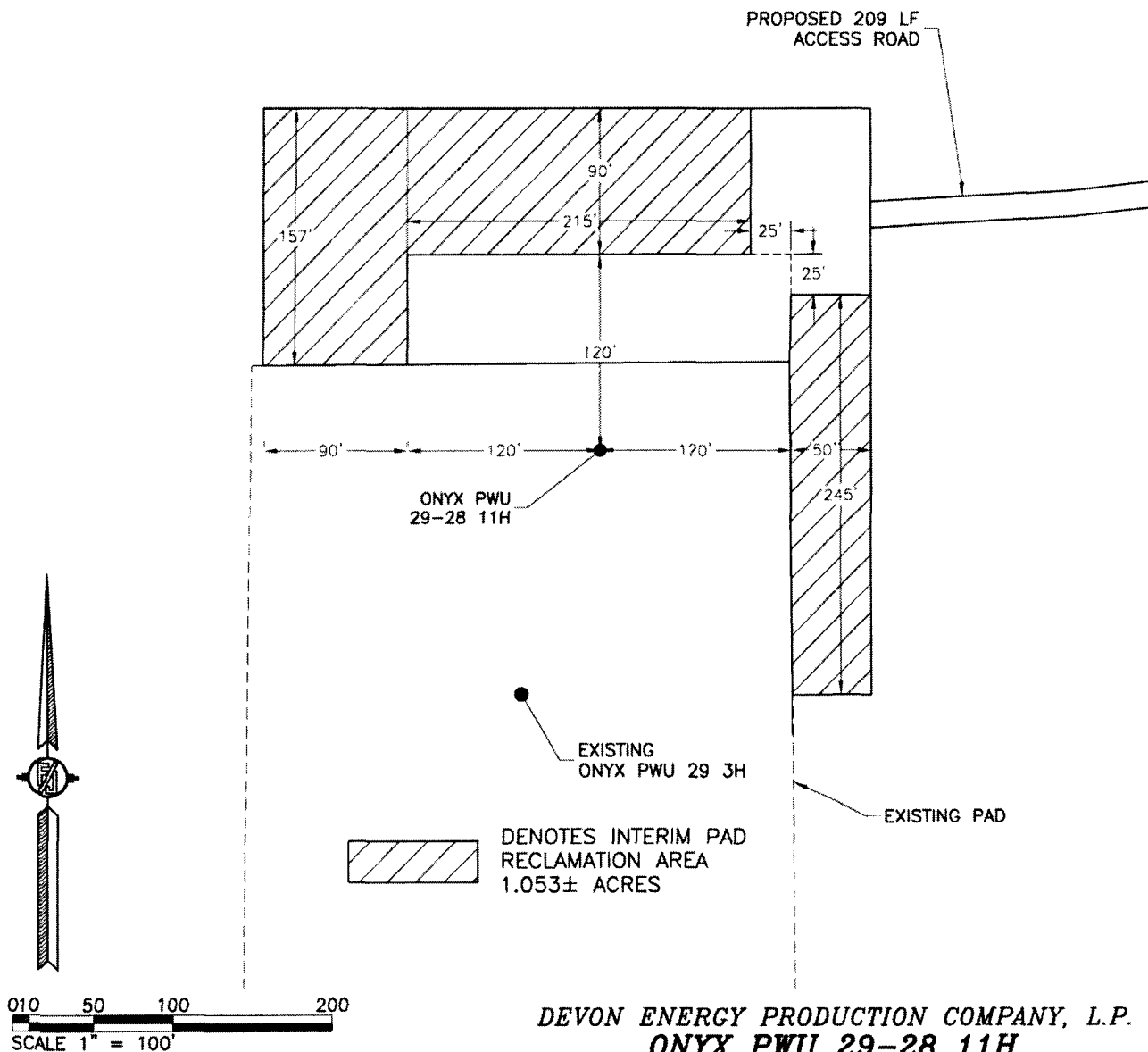
JULY 15, 2017

SURVEY NO. 5213

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

CARLSBAD, NEW MEXICO

SECTION 29, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
INTERIM SITE BUILD PLAN



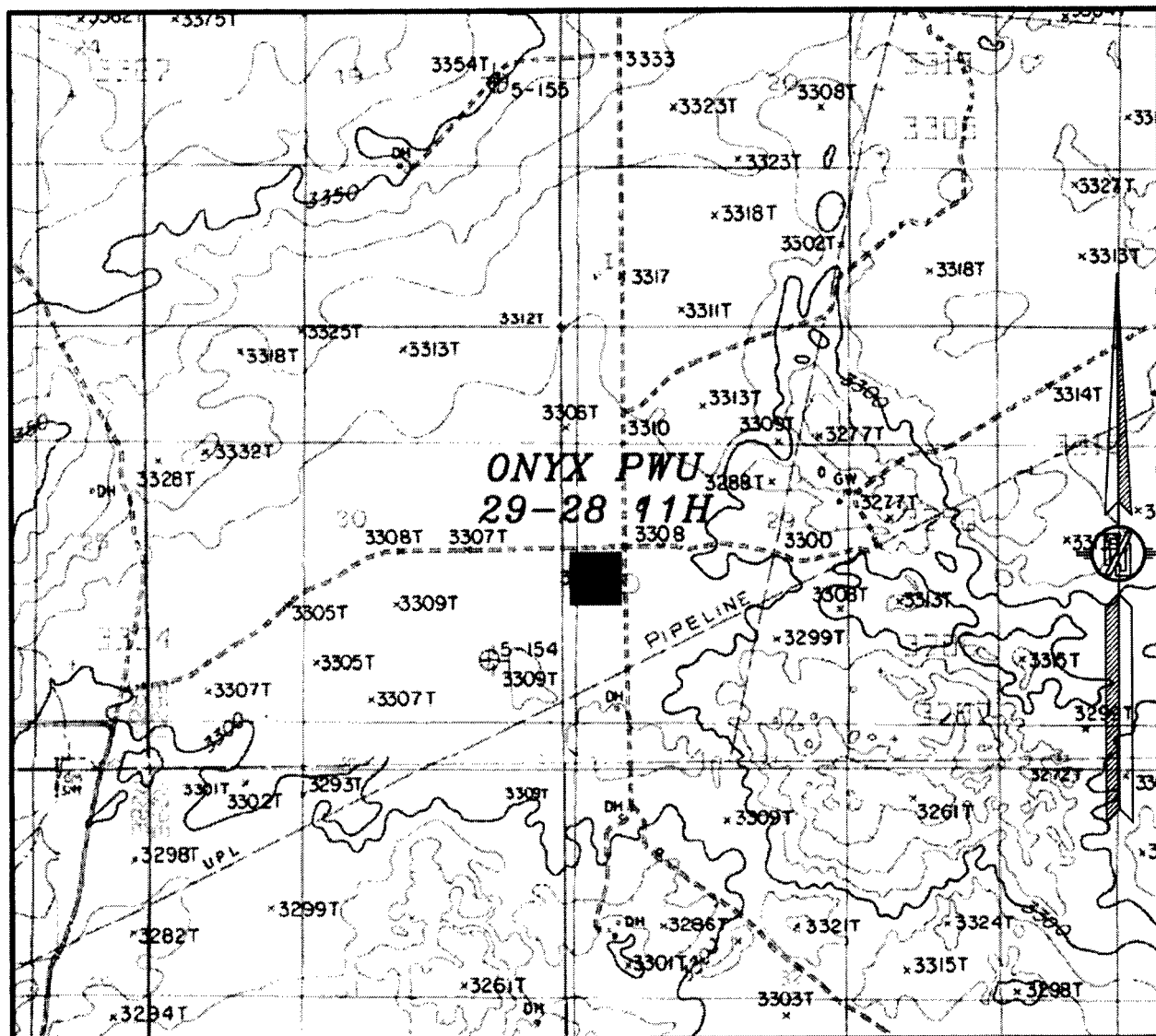
DEVON ENERGY PRODUCTION COMPANY, L.P.  
**ONYX PWU 29-28 11H**  
LOCATED 2295 FT. FROM THE SOUTH LINE  
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RANGE 29 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO

JULY 15, 2017

SURVEY NO. 5213

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

SECTION 29, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
LOCATION VERIFICATION MAP



USGS QUAD MAP:  
ILLINOIS CAMP NE

NOT TO SCALE

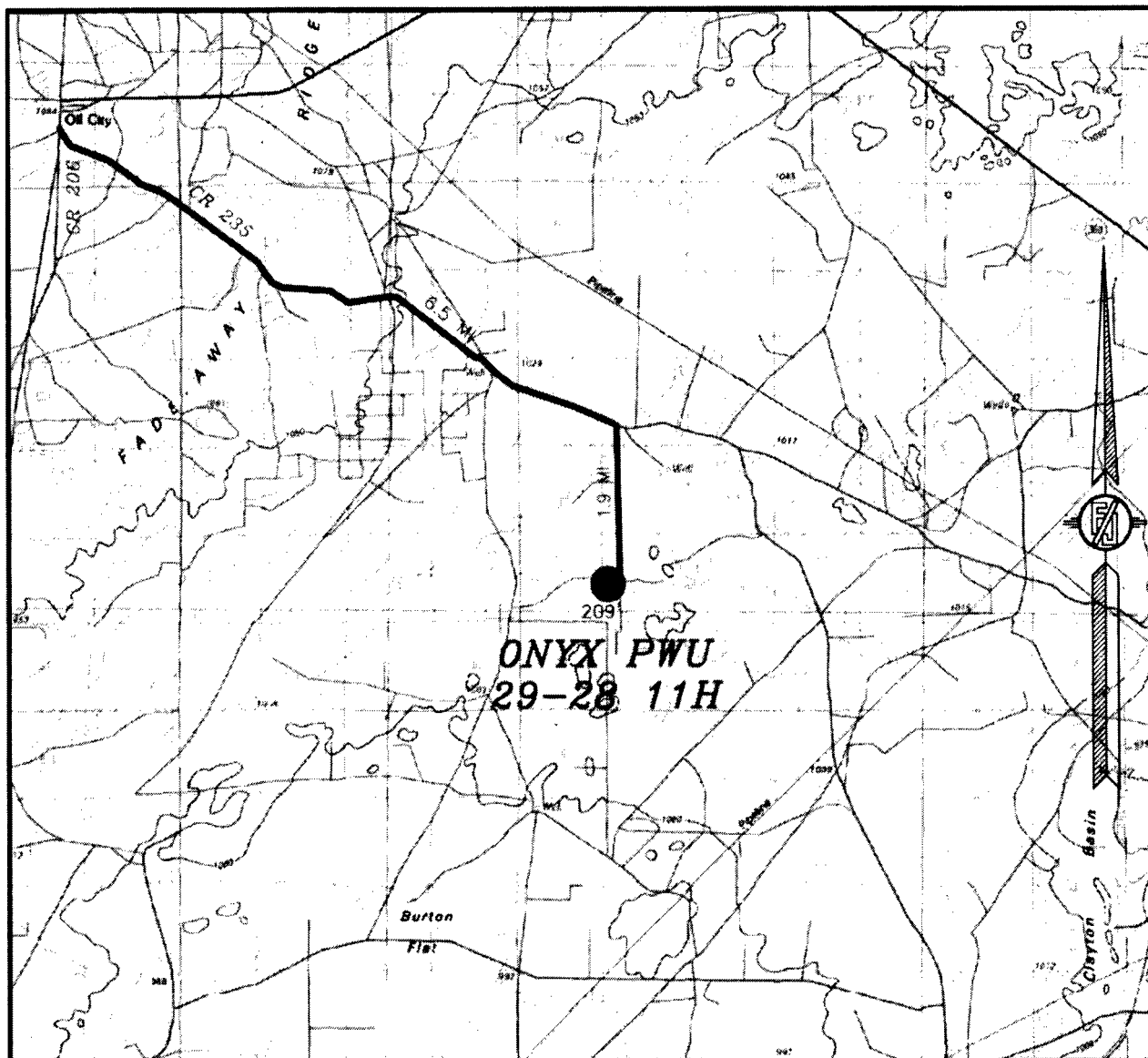
DEVON ENERGY PRODUCTION COMPANY, L.P.  
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EDDY COUNTY, STATE OF NEW MEXICO

JULY 15, 2017

SURVEY NO. 5213

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

SECTION 29, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.  
ONYX PWU 29-28 11H

LOCATED 2295 FT. FROM THE SOUTH LINE  
AND 380 FT. FROM THE WEST LINE OF  
SECTION 29, TOWNSHIP 19 SOUTH,  
RANGE 29 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO

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JULY 15, 2017

SURVEY NO. 5213

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

SECTION 29, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
**AERIAL PHOTO**



NOT TO SCALE  
AERIAL PHOTO:  
GOOGLE EARTH  
MARCH 2016

DEVON ENERGY PRODUCTION COMPANY, L.P.  
**ONYX PWU 29-28 11H**  
LOCATED 2295 FT. FROM THE SOUTH LINE  
AND 380 FT. FROM THE WEST LINE OF  
SECTION 29, TOWNSHIP 19 SOUTH,  
RANGE 29 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO

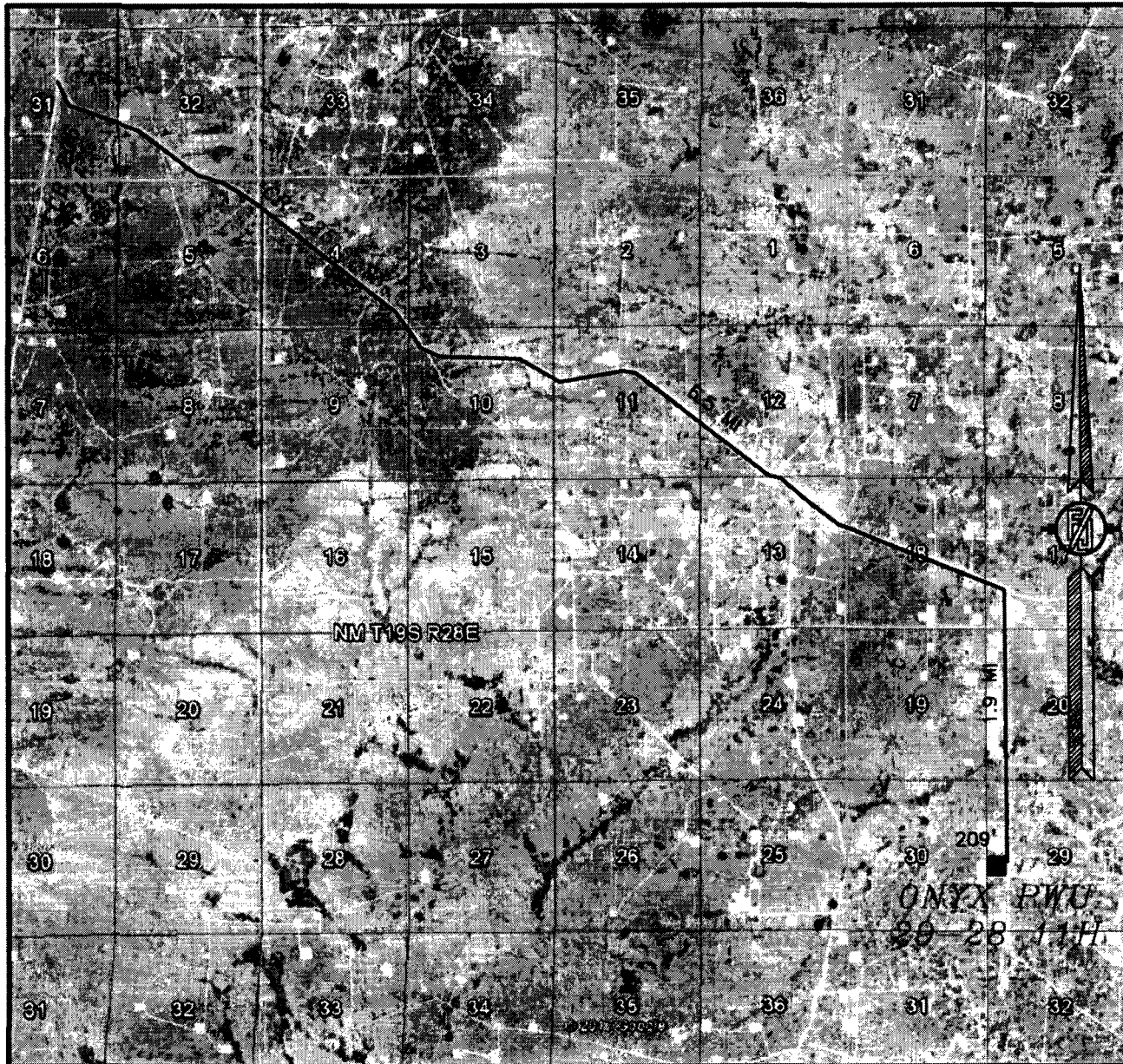
JULY 15, 2017

SURVEY NO. 5213

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



SECTION 29, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M.  
 EDDY COUNTY, STATE OF NEW MEXICO  
 ACCESS AERIAL ROUTE MAP



NOT TO SCALE  
 AERIAL PHOTO:  
 GOOGLE EARTH  
 MARCH 2016

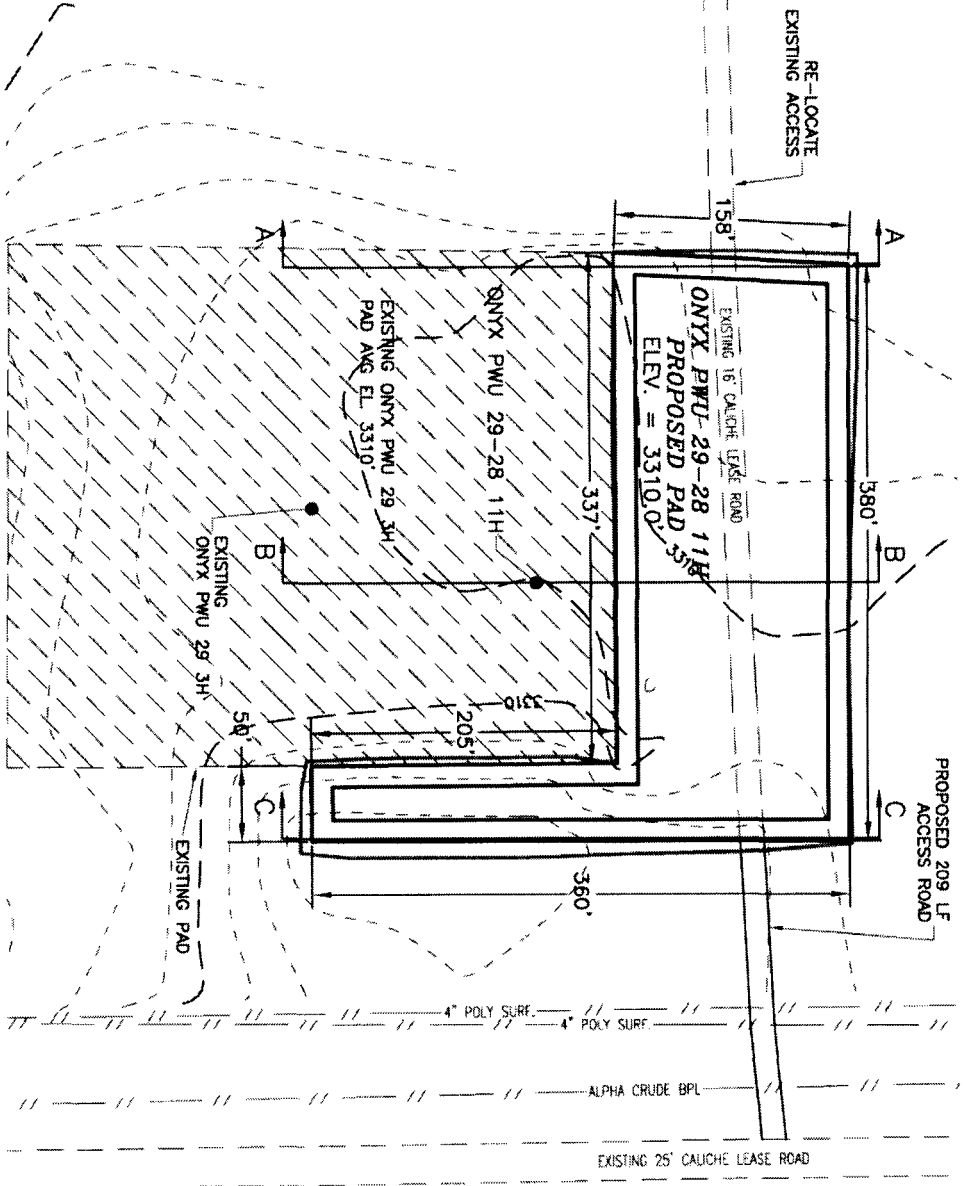
DEVON ENERGY PRODUCTION COMPANY, L.P.  
 ONYX PWU 29-28 11H  
 LOCATED 2295 FT. FROM THE SOUTH LINE  
 AND 380 FT. FROM THE WEST LINE OF  
 SECTION 29, TOWNSHIP 19 SOUTH,  
 RANGE 29 EAST, N.M.P.M.  
 EDDY COUNTY, STATE OF NEW MEXICO

JULY 15, 2017

SURVEY NO. 5213

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

# PLAN VIEW



DEVON ENERGY PRODUCTION COMPANY, L.P.  
GRADING PLAN AND CROSS SECTIONS  
**ONXX PMU 29-28 11H**  
SECTION 29, TOWNSHIP 19 SOUTH,  
RANGE 29 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO

JULY 15, 2017

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



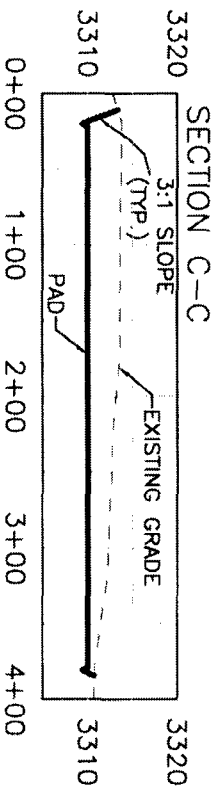
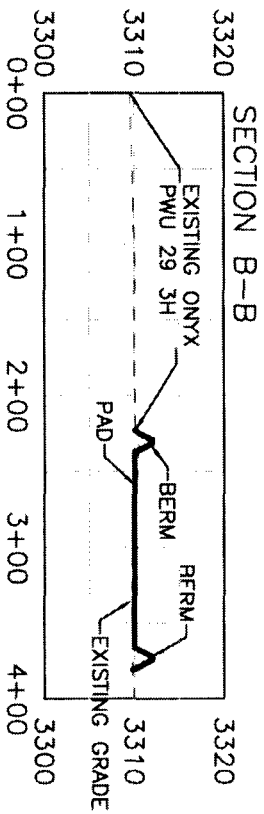
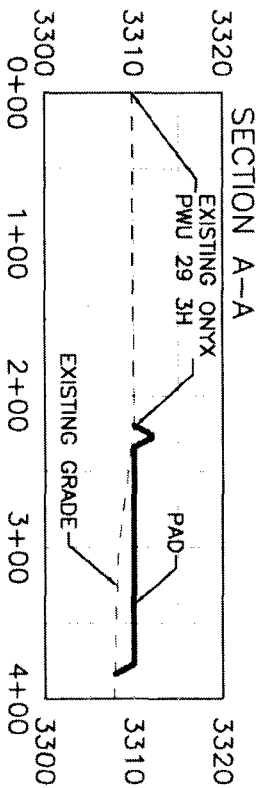
CUT	FILL	NET
1440 CU. YD.	1665 CU. YD.	229 CU. YD. (FILL)

EARTHWORK QUANTITIES ARE ESTIMATED

SHEET 1-2  
SURVEY NO. 5213



# CROSS SECTIONS

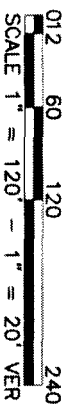


DEVON ENERGY PRODUCTION COMPANY, L.P.  
GRADING PLAN AND CROSS SECTIONS  
ONTX PWU 29-28 11H  
SECTION 29, TOWNSHIP 19 SOUTH,  
RANGE 29 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO

JULY 16, 2017

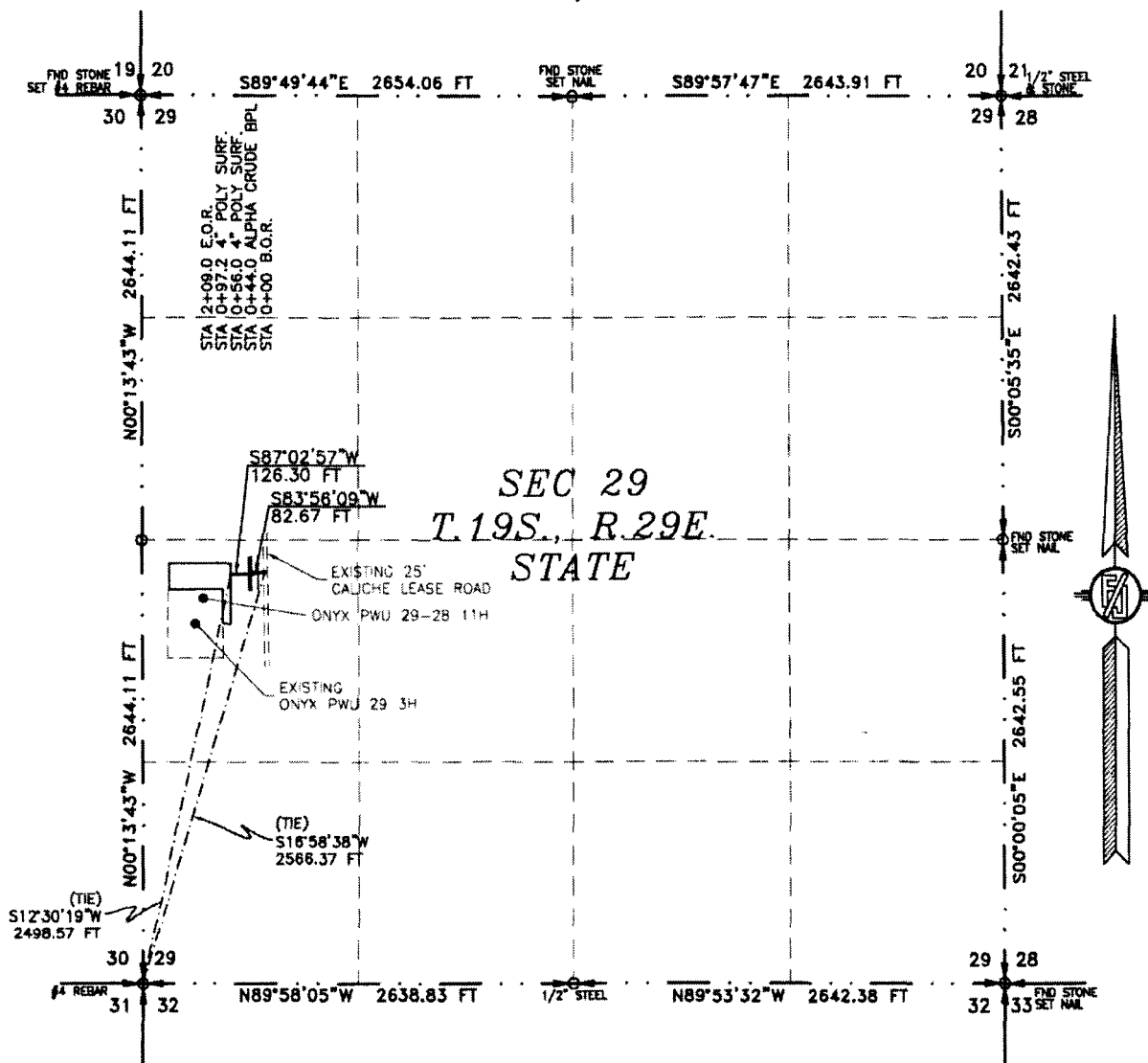
MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

SHEET 2-2  
SURVEY NO. 5213

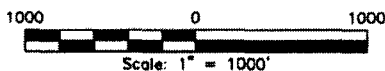


**ACCESS ROAD PLAT**  
ACCESS ROAD TO THE ONYX PWU 29-28 11H

**DEVON ENERGY PRODUCTION COMPANY, L.P.**  
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING  
SECTION 29, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M.  
EDDY COUNTY, STATE OF NEW MEXICO  
JULY 15, 2017



SEE NEXT SHEET (2-2) FOR DESCRIPTION



**GENERAL NOTES**

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 1-2

**MADRON SURVEYING, INC.**

**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 JULY 2017

*[Signature of Filimon F. Jaramillo]*  
FILIMON F. JARAMILLO, P.S. 12797

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

**SURVEY NO. 5213**

**CARLSBAD, NEW MEXICO**

**ACCESS ROAD PLAT**  
ACCESS ROAD TO THE ONYX PWU 29-28 11H

**DEVON ENERGY PRODUCTION COMPANY, L.P.**  
**CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING**  
**SECTION 29, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M.**  
**EDDY COUNTY, STATE OF NEW MEXICO**  
**JULY 15, 2017**

**DESCRIPTION**

A STRIP OF LAND 30 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 29, TOWNSHIP 19 SOUTH, RANGE 29 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 NW/4 SW/4 OF SAID SECTION 29, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M., WHENCE THE SOUTHWEST CORNER OF SAID SECTION 29, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M. BEARS S16°58'38"W, A DISTANCE OF 2586.37 FEET;  
THENCE S83°56'09"W A DISTANCE OF 82.67 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;  
THENCE S87°02'57"W A DISTANCE OF 126.30 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE SOUTHWEST CORNER OF SAID SECTION 29, TOWNSHIP 19 SOUTH, RANGE 29 EAST, N.M.P.M. BEARS S12°30'19"W, A DISTANCE OF 2498.57 FEET;

SAID STRIP OF LAND BEING 208.97 FEET OR 12.66 RODS IN LENGTH, CONTAINING 0.144 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NW/4 SW/4 208.97 L.F. 12.66 RODS 0.144 ACRES

**SURVEYOR CERTIFICATE**

I, FILMON 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 JULY 2017.

*Filmon F. Jaramillo*  
FILMON F. JARAMILLO PLS. 12797

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

**SURVEY NO. 5213**

**GENERAL NOTES**

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

**SHEET: 2-2**

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

## Devon Energy, Onyx PWU 29-28 10H

### 1. Geologic Formations

TVD of target	8,965	Pilot hole depth	N/A
MD at TD:	18,501	Deepest expected fresh water:	

### Basin

Geologic Formations			
Rustler	0		
Salt	465		
Tansil	1130		
Yates	1265		
Queen	2165		
Grayburg	2555		
Delaware	3445		
Bone Spring Lm	4975		
2nd BS Lm	7005		
3rd BS Lm	7990		
3rd BS Sd	8620		
Wolfcamp	9036		

\*H2S, water flows, loss of circulation, abnormal pressures, etc.

## Devon Energy, Onyx PWU 29-28 10H

### 2. Casing Program

24"	0	200	13.375"	48	H-40	STC
12.25"	0	3,500	9.625"	36	J-55	LTC
8.75"	0	18,501	5.5"	17	P-110	BTC
BLM Minimum Safety Factor				Collapse: 1.125	Burst: 1.00	Tension: 1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Must have table for contingency casing

Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

## Devon Energy, Onyx PWU 29-28 10H

### 3. Cementing Program

Cementing Program						
Casing Size	Volume (bbl)	Weight (lb)	Volume (bbl)	Weight (lb)	Time (hr mn)	Notes
13-3/8" Surface	226	14.8	6.368	1.33	4 hr 48 mn	C + Adds
9-5/8" Inter.	510	12.5	10.654	1.94	31 hr 40 mn	35:65 Poz:C + Adds
	294	14.8	6.352	1.33	6 hr 48 mn	C + Adds
5-1/2" Prod	642	10.5	15.442	2.43	19 hr 3 mn	C + Adds
	2264	14.5	5.175	1.2	9 hr 6 mn	50:50 Poz:H + Adds

If a DV tool is used, depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Cementing Program		
Casing Size	Depth (ft)	Percentage
13-3/8" Surface	0'	25%
9-5/8" Intermediate	0'	25%
5-1/2" Production Casing	2500'	10%



## Devon Energy, Onyx PWU 29-28 10H

### 4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
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12-1/4"	13-5/8"	3M	Annular	x	50% of working pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	x	
			Other*		
8-3/4"	13-5/8"	3M	Annular	x	50% testing pressure
			Blind Ram		3M
			Pipe Ram		
			Double Ram	x	
			Other*		
			Annular		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other*		

\*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Y	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
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## Devon Energy, Onyx PWU 29-28 10H

Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
Y	Are anchors required by manufacturer?
Y	<p>A multibowl wellhead may be used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.</p> <p>Devon proposes using a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi.</p> <ul style="list-style-type: none"> <li>Wellhead will be installed by wellhead representatives.</li> <li>If the welding is performed by a third party, the wellhead representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal.</li> <li>Wellhead representative will install the test plug for the initial BOP test.</li> <li>Wellhead company will install a solid steel body pack-off to completely isolate the lower head after cementing intermediate casing. After installation of the pack-off, the pack-off and the lower flange will be tested to 3M, as shown on the attached schematic. Everything above the pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time.</li> <li>If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted.</li> <li>Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating.</li> <li>Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per Onshore Order #2.</li> </ul> <p>After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 3,000 psi high pressure test. The 3,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2.</p> <p>After running the 9-5/8' intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 3M will already be installed on the wellhead.</p> <p>The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.</p>

## Devon Energy, Onyx PWU 29-28 10H

	Devon's proposed wellhead manufactures will be FMC Technologies, Cactus Wellhead, or Cameron.
	Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line). The line will be kept as straight as possible with minimal turns.

### 5. Mud Program

Depth (ft)	Depth (ft)	Mud Type	Weight (ppg)	Viscosity (cP)	Temperature (°F)
0	200'	FW Gel	8.6-8.8	28-34	N/C
200'	3,500	Saturated Brine	10.0-10.2	28-34	N/C
3,500	TD	Cut Brine	8.5-8.7	28-34	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
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### 6. Logging and Testing Procedures

Log Type	Log Description
x	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No Logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain
	Coring? If yes, explain

Wellbore Data		
	Resistivity	Int. shoe to KOP
	Density	Int. shoe to KOP
X	CBL	Production casing
X	Mud log	Intermediate shoe to TD
	PEX	

## 7. Drilling Conditions

BH Pressure at deepest TVD	4055 psi
Abnormal Temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S Plan attached

## 8. Other facets of operation

Is this a walking operation? Yes

Will be pre-setting casing? Yes

Attachments

☒ Directional Plan

☐ Other, describe