

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Form C-104
Revised August 1, 2011

Oil Conservation Division
1220 South St. Francis Dr.

Submit one copy to appropriate District Office

☐ AMENDED REPORT

NM OIL CONSERVATION

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

¹ Operator name and Address Devon Energy Production Company, L.P. 333 West Sheridan, Oklahoma City, OK 73102		² OGRID Number 6137	
³ Reason for Filing Code/ Effective Date NW / 5/18/16			
⁴ API Number 30-015-43274	⁵ Pool Name Paducah	⁶ Pool Code 96641	
⁷ Property Code 300635	⁸ Property Name Cotton Draw Unit	⁹ Well Number 242H	

II. ¹⁰ Surface Location

UI or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	12	25S	31E		2240	South	2430	East	Eddy

¹¹ Bottom Hole Location

UI or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
2	1	25S	31E		289.5	North	1953	East	Eddy

¹² Loc Code F	¹³ Producing Method Code F	¹⁴ Gas Connection Date 5/18/16	¹⁵ C-129 Permit Number	¹⁶ C-129 Effective Date	¹⁷ C-129 Expiration Date
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III. Oil and Gas Transporters

¹⁸ Transporter OGRID	¹⁹ Transporter Name and Address	²⁰ O/G/W
92591	Western Refining Company, L.P. 6500 Trowbridge Drive El Paso, TX 79905	Oil
020445	Plains Marketing P.O. Box 4648 Houston, TX 77210	Oil
036785	DCP Midstream P.O. Box 50020 Midland, TX 79710-0020	Gas
051618	Enterprise Field Services, LLC P.O. Box 4324 Houston, TX 77210-4324	Gas

IV. Well Completion Data

Well Completion Data					
²¹ Spud Date	²² Ready Date	²³ TD	²⁴ PBD	²⁵ Perforations	²⁶ DHC, MC
11/12/15	5/18/16	17847'	15109'	10710' - 15097'	
²⁷ Hole Size		²⁸ Casing & Tubing Size		²⁹ Depth Set	³⁰ Sacks Cement
17-1/2"		13-3/8"		755	1015 sx CIC; Circ 0
12-1/4"		9-5/8"		4238	1545 sx CIC; Circ 155 bbls
8-3/4" & 8-1/2"		5-1/2"		15388	2394 sx cmt; Circ 10 bbls
		Tubing: 2-7/8"		9659'	

V. Well Test Data

³¹ Date New Oil 6/7/16	³² Gas Delivery Date 6/7/16	³³ Test Date 6/7/16	³⁴ Test Length 24 hrs	³⁵ Tbg. Pressure 1248 psi	³⁶ Csg. Pressure 495 psi
³⁷ Choke Size	³⁸ Oil 597 bbl	³⁹ Water 866 bbl	⁴⁰ Gas 1127 mcf		⁴¹ Test Method

I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: *Rebecca Deal*
Printed name: Rebecca Deal
Title: Regulatory Compliance Analyst
E-mail Address: rebecca.deal@dmn.com
Date: 6/13/2016
Phone:

OIL CONSERVATION DIVISION

Approved by: *Karen Sharp*
Title: *Bus Oper Spec-Adv*
Approval Date: 7-25-16

Provide signature page for survey

Pending BLM approvals will subsequently be reviewed and scanned

CONFIDENTIAL

Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

5. Lease Serial No. BHL: NMNM0503

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2.

7. If Unit of CA/Agreement, Name and/or No.

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
Cotton Draw Unit 242H

2. Name of Operator
Devon Energy Production Company, L.P.

9. API Well No.
30-015-43274

3a. Address
333 West Sheridan, Oklahoma City, OK 73102

3b. Phone No. (include area code)
405-228-4248

10. Field and Pool or Exploratory Area
Paduca; Bone Spring (O)

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
2240' FSL & 2430' FEL Unit J, Sec 12, T25S, R31E
289.5' FNL & 1953' FEL Lot 2, Sec 1, T25S, R31E

PP: 2498' FSL & 2127' FEL

11. Country or Parish, State
Eddy, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Completion Report
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomple horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

3/11/16-5/18/16: MIRU WL & PT. TIH & ran GR/CCL/Compensated Neutron/Isolation Scanner, found ETOC @ 1900' TIH w/pump through frac plug and guns. Perf Bone Spring, 10,710'-15,079' ND frac, MIRU PU, NU BOP, DO plugs & CO to PBTD 15,109'. CHC, FWB, ND BOP. RIH w/ 302 jts 2-7/8" P-110 tbg, set @ 9659.2'. TOP.

NM OIL CONSERVATION
ARTESIA DISTRICT

JUL 25 2016

RECEIVED

14. I hereby certify that the foregoing is true and correct.

Name (Printed/Typed)

Rebecca Deal

Title Regulatory Compliance Analyst

Signature

Rebecca Deal

Date 6/13/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

Pending BLM approvals will
subsequently be reviewed
and scanned

Agency of the United States any false,

CONFIDENTIAL

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. **BHL: NMNM0503**

1a. Type of Well ☒ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion: ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resrv.,
Other: _____

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

2. Name of Operator **Devon Energy Production Company, L.P.**

8. Lease Name and Well No.
Cotton Draw Unit 242H

3. Address **333 West Sheridan Ave, Oklahoma City, OK 73102**

3a. Phone No. (include area code)
405-228-4248

9. API Well No.
30-015-43274

4. Location of Well (Report location clearly and in accordance with Federal requirements)

At surface
2240' FSL & 2430' FEL Unit J, Sec 12, T25S, R31E

10. Field and Pool or Exploratory
Paduca; Bone Spring (O)

11. Sec., T., R., M., on Block and
Survey or Area
Sec 12, T25S, R31E

At top prod. interval reported below

12. County or Parish **Eddy** 13. State **NM**

At total depth **289.5' FNL & 1953' FEL Lot 2, Sec 1, T25S, R31E**

14. Date Spudded
11/12/15

15. Date T.D. Reached
12/3/15

16. Date Completed **5/18/16**
☐ D & A ☒ Ready to Prod.

17. Elevations (DF, RKB, RT, GL)*
GL: 3424.2'

18. Total Depth. MD **17847'**
TVD **10409.37'**

19. Plug Back T.D.: MD **15109'**
TVD

20. Depth Bridge Plug Set: MD
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
GR/CCL/Compensated Neutron/Isolation Scanner

22. Was well cored? ☐ No ☐ Yes (Submit analysis)
Was DST run? ☐ No ☐ Yes (Submit report)
Directional Survey? ☐ No ☒ Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (lb/ft)	Top (MD)	Bottom (MD)	Stage Cement Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17-1/2"	13-3/8" J-55	54.5	0	755		1015 sx CIC		0	
12-1/4"	9-5/8" J-55 & HCK-55	40	0	4238		1545 sx CIC		0	155 bbls
3/4" & 8-1/2"	5-1/2" RY-P110	17	0	15388		2394 sx cmt		0	10 bbls

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2-7/8"	9659'							

25. Producing Intervals

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Bone Spring	10710'	15097'	10710' - 15097'		558	open
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material
10710' - 15097'	2457 gals acid, 5,713,000 proppant

NM OIL CONSERVATION

ARTESIA DISTRICT

JUL 25 2016

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
5/18/16	6/7/16	24	→	597	1127	866			Flow
Choke Size	Tbg. Press. Flwg. SI	Csg. Press. SI	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
	1248psi	495psi	→				1887.772		

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Pr
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press. SI	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

*(See instructions and spaces for additional data on page 2)

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subsequently be reviewed
and scanned

28b. Production - Interval C									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

28c. Production - Interval D									
Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						
Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status	
			→						

29. Disposition of Gas (Solid, used for fuel, vented, etc.)

SOLD

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth
Bone Spring	8279			Rustler	676
				Salado	975
				Salt	2788
				Delaware	4366
				Bell Canyon	4396
				Cherry Canyon	5310
				Brushy Canyon	6719
				Bone Spring	8279
				1BSSS	9362
				2BSSS	9888

32. Additional remarks (include plugging procedure):

33. Indicate which items have been attached by placing a check in the appropriate boxes:

- ☒ Electrical/Mechanical Logs (1 full set req'd.)
 ☐ Geologic Report
 ☐ DST Report
 ☒ Directional Survey
 ☐ Sundry Notice for plugging and cement verification
 ☐ Core Analysis
 ☐ Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name (please print) Rebecca Deal

Title Regulatory Compliance Analyst

Signature Rebecca Deal

Date 6/13/2016

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 3)

(Form 3160-4, page 2)



Directional Survey

DELAWARE BASIN WEST UNRESTRICTED

Well Name: COTTON DRAW UNIT 242H

Sub-Division	Region	Field Name	County	State/Province
DELAWARE BASIN WEST	BASIN WEST	PADUCA	EDDY	NM
Surface Legal Location	APIDJAN	Latitude (°)	Longitude (°)	Original Elevation (ft)
SEC. 12 T25S R31E	3001543274	32° 6' 39.434" N	103° 43' 51.033" W	3,449.20
				Ground Elev. MSL (ft)
				3,424.20
				RS - GL (ft)
				25.00

Wellbores

Wellbore Name	Parent Wellbore	SAP Well ID	Vertical Section Direction (°)
OH	OH	39075	3.06

Kick Offs & Key Depths

Date	Type	Top Depth (ft)
11/22/2015	CURVE	8,647.0

Actual Deviation Survey
PATHFINDER, Proposed? No

Debitive? No

Proposed? No

Proposed Deviation Survey

Deviation Survey

Date		Description			
11/12/2015		PATHFINDER			
MD Tie In (ft)	IVD Tie In (ft)	Inclination Tie In (°)	Azimuth Tie In (°)	NS Tie In (ft)	EW Tie In (ft)

Survey Data

Date	MD (ft)	Incl (°)	Azm (°)	IVD (ft)	VS (ft)	NS (ft)	EW (ft)	DLS (ft/1000)	Survey Tool	Survey Company
11/12/2...	165.00	0.40	255.49	165.00	-0.17	-0.14	-0.56	0.24	MWD	EXTREME TOOL
11/12/2...	228.00	0.40	327.52	228.00	-0.06	-0.01	-0.89	0.75	MWD	EXTREME TOOL
11/12/2...	332.00	0.48	355.90	331.99	0.67	0.73	-1.11	-0.22	MWD	EXTREME TOOL
11/12/2...	426.00	0.70	356.19	425.99	1.63	1.89	-1.16	0.24	MWD	EXTREME TOOL
11/12/2...	519.00	1.01	1.79	518.98	3.01	3.08	-1.15	0.34	MWD	EXTREME TOOL
11/12/2...	613.00	1.32	10.71	612.96	4.92	4.97	-0.93	0.38	MWD	EXTREME TOOL
11/12/2...	801.00	1.49	358.80	800.90	9.50	9.54	-0.57	0.18	MWD	EXTREME TOOL
11/12/2...	894.00	1.32	355.03	893.88	11.77	11.82	-0.69	0.21	MWD	EXTREME TOOL
11/12/2...	1,079.00	1.01	352.12	1,078.84	15.48	15.56	-1.10	0.17	MWD	EXTREME TOOL
11/12/2...	1,262.00	0.62	352.21	1,261.82	18.03	18.14	-1.49	0.21	MWD	EXTREME TOOL
11/12/2...	1,441.00	0.31	347.99	1,440.81	19.45	19.57	-1.69	0.17	MWD	EXTREME TOOL
11/12/2...	1,620.00	0.09	43.72	1,619.81	20.03	20.14	-1.69	0.16	MWD	EXTREME TOOL
11/12/2...	1,798.00	0.31	45.61	1,797.81	20.48	20.58	-1.25	0.12	MWD	EXTREME TOOL
11/12/2...	1,974.00	0.22	82.92	1,973.81	20.89	20.95	-0.57	0.11	MWD	EXTREME TOOL
11/12/2...	2,153.00	0.22	71.01	2,152.81	21.09	21.11	0.09	0.03	MWD	EXTREME TOOL
11/12/2...	2,331.00	0.31	117.02	2,330.80	21.02	21.00	0.85	0.13	MWD	EXTREME TOOL
11/12/2...	2,509.00	0.22	90.91	2,508.80	20.83	20.78	1.62	0.08	MWD	EXTREME TOOL
11/12/2...	2,688.00	0.22	145.01	2,687.80	20.58	20.49	2.16	0.11	MWD	EXTREME TOOL
11/12/2...	2,867.00	0.20	111.22	2,866.80	20.21	20.09	2.65	0.07	MWD	EXTREME TOOL
11/12/2...	3,045.00	0.22	147.30	3,044.80	19.83	19.69	3.12	0.07	MWD	EXTREME TOOL
11/12/2...	3,224.00	0.31	105.02	3,223.80	19.45	19.28	3.77	0.12	MWD	EXTREME TOOL
11/12/2...	3,403.00	0.22	105.11	3,402.80	19.28	19.06	4.57	0.05	MWD	EXTREME TOOL
11/12/2...	3,581.00	0.22	82.51	3,580.79	19.27	19.02	5.24	0.05	MWD	EXTREME TOOL
11/12/2...	3,763.00	0.62	115.30	3,762.79	18.98	18.65	6.48	0.25	MWD	EXTREME TOOL
11/12/2...	3,942.00	0.88	128.79	3,941.77	17.80	17.37	8.42	0.17	MWD	EXTREME TOOL
11/12/2...	4,120.00	1.49	138.70	4,119.74	15.40	14.83	11.08	0.35	MWD	EXTREME TOOL
11/12/2...	4,210.00	1.10	127.92	4,209.71	14.10	13.45	12.56	0.48	MWD	EXTREME TOOL
11/12/2...	4,284.00	0.88	135.83	4,283.70	13.31	12.60	13.52	0.35	MWD	EXTREME TOOL
11/12/2...	4,369.00	0.79	130.81	4,368.69	12.50	11.75	14.42	0.14	MWD	PATHFINDER
11/12/2...	4,458.00	0.82	134.38	4,457.69	11.81	11.01	15.22	0.20	MWD	PATHFINDER
11/12/2...	4,548.00	0.82	115.85	4,547.68	11.29	10.45	16.01	0.21	MWD	PATHFINDER
11/12/2...	4,637.00	0.88	92.75	4,636.67	11.10	10.20	17.12	0.45	MWD	PATHFINDER
11/12/2...	4,728.00	1.76	89.10	4,725.65	11.20	10.19	19.17	0.99	MWD	PATHFINDER
11/12/2...	4,815.00	1.93	90.82	4,814.60	11.35	10.19	22.03	0.20	MWD	PATHFINDER
11/12/2...	4,905.00	2.55	93.49	4,904.53	11.40	10.05	25.55	0.70	MWD	PATHFINDER
11/12/2...	4,994.00	2.99	81.04	4,993.43	11.46	9.89	29.84	0.51	MWD	PATHFINDER
11/12/2...	5,083.00	3.08	86.29	5,082.30	11.83	10.00	34.55	0.30	MWD	PATHFINDER
11/12/2...	5,173.00	3.17	90.28	5,172.17	12.23	10.14	39.45	0.26	MWD	PATHFINDER
11/12/2...	5,262.00	4.48	89.47	5,260.97	12.67	10.16	45.39	1.47	MWD	PATHFINDER
11/12/2...	5,352.00	5.45	84.67	5,350.63	13.41	10.59	53.18	1.17	MWD	PATHFINDER
11/12/2...	5,441.00	5.28	82.48	5,439.24	14.78	11.52	61.43	0.30	MWD	PATHFINDER
11/12/2...	5,530.00	4.62	83.28	5,527.89	16.18	12.50	69.28	0.41	MWD	PATHFINDER
11/12/2...	5,619.00	4.92	82.18	5,618.56	17.55	13.47	76.85	0.11	MWD	PATHFINDER
11/12/2...	5,708.00	4.92	81.36	5,705.23	19.05	14.56	84.40	0.08	MWD	PATHFINDER
11/12/2...	5,798.00	5.36	77.80	5,794.87	20.94	16.03	92.33	0.60	MWD	PATHFINDER
11/12/2...	5,887.00	5.01	84.50	5,883.51	22.61	17.28	100.26	0.79	MWD	PATHFINDER
11/12/2...	5,976.00	4.75	84.60	5,972.19	23.73	18.00	107.80	0.29	MWD	PATHFINDER
11/12/2...	6,065.00	4.66	84.30	6,060.89	24.82	18.71	115.06	0.10	MWD	PATHFINDER
11/12/2...	6,155.00	4.66	85.44	6,150.59	25.87	19.36	122.34	0.10	MWD	PATHFINDER
11/12/2...	6,244.00	4.57	88.01	6,239.30	26.66	19.77	129.49	0.25	MWD	PATHFINDER
11/12/2...	6,333.00	5.45	87.51	6,327.96	27.38	20.08	137.26	0.99	MWD	PATHFINDER
11/12/2...	6,423.00	5.45	88.63	6,417.55	28.12	20.37	145.80	0.12	MWD	PATHFINDER
11/12/2...	6,512.00	5.80	89.47	6,506.12	28.73	20.51	154.52	0.40	MWD	PATHFINDER
11/12/2...	6,601.00	5.38	83.10	6,594.70	29.73	21.05	163.15	0.85	MWD	PATHFINDER
11/12/2...	6,691.00	5.19	82.98	6,684.32	31.17	22.05	171.36	0.19	MWD	PATHFINDER
11/12/2...	6,780.00	4.84	88.05	6,772.98	32.20	22.67	179.11	0.63	MWD	PATHFINDER
11/12/2...	6,870.00	4.40	88.12	6,862.69	32.83	22.92	186.35	0.49	MWD	PATHFINDER
11/12/2...	6,959.00	4.92	79.05	6,951.39	34.05	23.75	193.51	1.01	MWD	PATHFINDER
11/12/2...	7,048.00	5.19	77.88	7,040.05	36.03	25.32	201.19	0.32	MWD	PATHFINDER
11/12/2...	7,138.00	4.75	78.26	7,129.71	38.04	26.94	208.82	0.49	MWD	PATHFINDER
11/12/2...	7,227.00	5.72	80.42	7,218.34	39.96	28.42	216.80	1.11	MWD	PATHFINDER
11/12/2...	7,316.00	5.45	82.40	7,306.92	41.71	29.72	225.37	0.37	MWD	PATHFINDER

Provide signature page for survey

NM OIL CONSERVATION
ARTESIA DISTRICT
JUL 25 2016

RECEIVED



Directional Survey

DELAWARE BASIN WEST UNRESTRICTED

Well Name: COTTON DRAW UNIT 242H

Sub-Division	Region	Field Name	County	State/Province						
DELAWARE BASIN WEST	BASIN WEST	PADUCA	EDDY	NM						
Surface Legal Location	APN/UM	Latitude (°)	Longitude (°)	Org KB Elevation (ft)						
SEC 12 T26S R31E	3001543274	32° 8' 39.434" N	103° 43' 51.033" W	3,449.20						
Ground Elev MSL (ft)				3,424.20						
KB - OL (ft)				25.00						
Survey Data										
Date	MD (RKB)	Incl (°)	Azim (°)	TVD (RKB)	VS (ft)	N/S (ft)	E/W (ft)	DLB (ft/100ft)	Survey Tool	Survey Company
11/12/2...	7,408.00	5.19	83.79	7,396.53	43.16	30.73	233.65	0.32	MWD	PATHFINDER
11/12/2...	7,485.00	4.75	87.88	7,485.19	44.14	31.30	241.33	0.63	MWD	PATHFINDER
11/12/2...	7,585.00	4.57	79.38	7,574.90	45.32	32.10	248.58	0.79	MWD	PATHFINDER
11/12/2...	7,674.00	4.66	79.71	7,663.61	47.00	33.40	255.62	0.11	MWD	PATHFINDER
11/12/2...	7,763.00	4.48	80.55	7,762.32	48.58	34.52	262.81	0.22	MWD	PATHFINDER
11/12/2...	7,853.00	4.66	77.48	7,842.04	50.33	35.98	269.65	0.34	MWD	PATHFINDER
11/12/2...	7,942.00	4.31	76.11	7,930.77	52.33	37.63	276.41	0.44	MWD	PATHFINDER
11/12/2...	8,032.00	4.75	77.04	8,020.48	54.40	39.33	283.31	0.52	MWD	PATHFINDER
11/12/2...	8,121.00	5.28	84.11	8,109.14	56.05	40.58	290.97	0.91	MWD	PATHFINDER
11/12/2...	8,211.00	4.92	85.32	8,198.79	57.22	41.32	298.94	0.42	MWD	PATHFINDER
11/12/2...	8,300.00	5.63	86.00	8,287.41	58.27	41.94	307.10	0.80	MWD	PATHFINDER
11/12/2...	8,389.00	5.54	83.71	8,375.99	59.50	42.71	315.72	0.27	MWD	PATHFINDER
11/12/2...	8,478.00	4.66	82.76	8,464.64	60.85	43.64	323.68	0.99	MWD	PATHFINDER
11/12/2...	8,568.00	4.75	80.53	8,554.33	62.31	44.71	330.88	0.23	MWD	PATHFINDER
11/12/2...	8,657.00	5.10	78.22	8,643.00	64.12	46.12	338.39	0.45	MWD	PATHFINDER
11/12/2...	8,746.00	6.24	95.49	8,731.57	64.93	46.47	347.08	2.29	MWD	PATHFINDER
11/12/2...	8,835.00	5.98	100.48	8,820.07	64.13	45.16	356.45	0.66	MWD	PATHFINDER
11/12/2...	8,925.00	5.10	95.32	8,909.65	63.36	43.94	365.04	1.12	MWD	PATHFINDER
11/12/2...	9,014.00	3.96	95.26	8,998.37	63.09	43.29	372.04	1.28	MWD	PATHFINDER
11/12/2...	9,103.00	2.81	89.07	9,087.21	63.12	43.04	377.28	1.35	MWD	PATHFINDER
11/12/2...	9,193.00	2.02	100.64	9,177.13	63.07	42.79	381.05	1.03	MWD	PATHFINDER
11/12/2...	9,282.00	1.58	75.07	9,268.09	63.24	42.81	383.78	1.02	MWD	PATHFINDER
11/12/2...	9,371.00	1.06	82.83	9,355.06	64.03	43.51	385.69	0.68	MWD	PATHFINDER
11/12/2...	9,460.00	0.88	79.89	9,444.05	64.60	44.00	387.10	0.38	MWD	PATHFINDER
11/12/2...	9,573.00	0.88	102.80	9,557.04	64.65	43.96	388.60	0.31	MWD	PATHFINDER
11/12/2...	9,663.00	1.58	349.95	9,647.03	66.75	45.03	389.28	2.32	MWD	PATHFINDER
11/12/2...	9,708.00	5.98	351.43	9,691.92	68.65	47.96	388.80	9.78	MWD	PATHFINDER
11/12/2...	9,752.00	10.20	357.34	9,735.47	74.77	54.12	388.28	9.76	MWD	PATHFINDER
11/12/2...	9,797.00	13.72	3.93	9,779.49	84.08	63.43	388.46	8.38	MWD	PATHFINDER
11/12/2...	9,842.00	17.67	7.58	9,822.80	96.22	75.53	389.73	9.05	MWD	PATHFINDER
11/12/2...	9,888.00	19.87	7.68	9,864.48	110.34	89.56	391.61	5.00	MWD	PATHFINDER
11/12/2...	9,931.00	21.10	4.10	9,906.62	128.06	106.22	393.21	3.90	MWD	PATHFINDER
11/12/2...	9,976.00	24.53	2.69	9,948.09	143.50	122.63	394.23	7.72	MWD	PATHFINDER
11/12/2...	10,020.00	28.14	3.36	9,987.52	163.02	142.12	395.26	8.23	MWD	PATHFINDER
11/12/2...	10,068.00	31.48	6.38	10,026.56	185.38	164.42	396.99	7.76	MWD	PATHFINDER
11/12/2...	10,110.00	35.00	5.02	10,064.19	210.02	188.98	399.22	7.83	MWD	PATHFINDER
11/12/2...	10,154.00	39.13	6.06	10,099.29	236.51	215.37	401.79	9.49	MWD	PATHFINDER
11/12/2...	10,199.00	43.09	5.65	10,133.19	266.06	244.80	404.80	8.82	MWD	PATHFINDER
11/12/2...	10,244.00	47.22	4.32	10,164.92	287.94	276.58	407.56	8.41	MWD	PATHFINDER
11/12/2...	10,288.00	50.91	2.67	10,193.74	331.17	308.75	409.58	8.85	MWD	PATHFINDER
11/12/2...	10,333.00	53.64	2.83	10,221.27	366.76	345.30	411.28	8.07	MWD	PATHFINDER
11/12/2...	10,377.00	57.16	2.57	10,246.28	402.97	381.47	412.98	8.01	MWD	PATHFINDER
11/12/2...	10,422.00	62.26	1.44	10,268.95	441.81	420.29	414.34	11.54	MWD	PATHFINDER
11/12/2...	10,467.00	66.46	0.12	10,288.41	482.34	460.85	414.88	9.74	MWD	PATHFINDER
11/12/2...	10,512.00	69.20	358.90	10,305.38	523.93	502.52	414.52	6.55	MWD	PATHFINDER
11/12/2...	10,556.00	71.14	358.24	10,320.31	565.19	543.89	413.49	4.63	MWD	PATHFINDER
11/12/2...	10,601.00	72.55	356.75	10,334.33	607.74	586.61	411.61	4.44	MWD	PATHFINDER
11/12/2...	10,645.00	74.39	356.02	10,346.85	649.84	628.70	408.95	4.47	MWD	PATHFINDER
11/12/2...	10,690.00	75.53	355.95	10,358.62	692.78	672.05	405.91	2.54	MWD	PATHFINDER
11/12/2...	10,735.00	77.65	356.68	10,368.96	736.23	715.73	403.10	4.97	MWD	PATHFINDER
11/12/2...	10,780.00	81.43	356.72	10,377.13	780.20	758.90	400.66	8.40	MWD	PATHFINDER
11/12/2...	10,824.00	84.50	357.01	10,382.51	823.61	803.50	398.16	7.01	MWD	PATHFINDER
11/12/2...	10,869.00	88.11	358.53	10,385.41	868.32	848.37	396.42	8.70	MWD	PATHFINDER
11/12/2...	10,914.00	91.45	0.11	10,385.59	913.21	893.36	395.89	8.21	MWD	PATHFINDER
11/12/2...	10,958.00	92.42	358.96	10,384.10	957.13	937.33	395.91	2.23	MWD	PATHFINDER
11/12/2...	11,048.00	91.01	359.78	10,381.41	1,048.96	1,027.29	395.72	1.88	MWD	PATHFINDER
11/12/2...	11,137.00	89.96	359.99	10,380.65	1,135.81	1,116.28	395.54	1.20	MWD	PATHFINDER
11/12/2...	11,226.00	89.60	359.03	10,381.00	1,224.63	1,205.28	394.78	1.15	MWD	PATHFINDER
11/12/2...	11,316.00	89.78	358.49	10,381.48	1,314.43	1,295.27	393.62	0.55	MWD	PATHFINDER
11/12/2...	11,406.00	89.43	0.72	10,382.10	1,404.31	1,385.28	393.78	1.42	MWD	PATHFINDER
11/12/2...	11,495.00	89.98	1.02	10,382.58	1,493.24	1,474.25	395.14	0.88	MWD	PATHFINDER
11/12/2...	11,584.00	90.22	1.58	10,382.44	1,582.20	1,563.23	397.16	0.69	MWD	PATHFINDER
11/12/2...	11,673.00	90.40	1.45	10,381.96	1,671.17	1,652.20	396.51	0.25	MWD	PATHFINDER
11/12/2...	11,763.00	91.80	1.47	10,380.23	1,761.11	1,742.15	401.80	1.56	MWD	PATHFINDER
11/12/2...	11,852.00	90.31	1.05	10,378.59	1,850.05	1,831.11	403.76	1.74	MWD	PATHFINDER
11/12/2...	11,942.00	90.68	1.35	10,377.83	1,940.00	1,921.09	405.64	0.51	MWD	PATHFINDER
11/12/2...	12,031.00	89.43	1.45	10,377.76	2,028.86	2,010.06	407.82	1.39	MWD	PATHFINDER
11/12/2...	12,121.00	89.52	1.09	10,378.58	2,118.81	2,100.03	409.81	0.41	MWD	PATHFINDER
11/12/2...	12,210.00	89.34	0.20	10,379.47	2,207.83	2,189.02	410.81	1.02	MWD	PATHFINDER
11/12/2...	12,299.00	89.34	0.59	10,380.49	2,296.73	2,278.01	411.43	0.44	MWD	PATHFINDER
11/12/2...	12,389.00	89.60	0.38	10,381.33	2,386.63	2,368.00	412.19	0.37	MWD	PATHFINDER
11/12/2...	12,478.00	89.98	0.83	10,381.87	2,475.55	2,457.00	413.13	0.65	MWD	PATHFINDER
11/12/2...	12,567.00	90.31	0.57	10,381.46	2,564.47	2,545.89	414.22	0.49	MWD	PATHFINDER

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Well Name: COTTON DRAW UNIT 242H

Sub-Division	Region	Field Name	County	State/Province
DELAWARE BASIN WEST	BASIN WEST	PADUCA	EDDY	NM
Surface Legal Location	APN/BLM	Latitude (°)	Longitude (°)	Orig RB Elevation (ft)
SEC 12 T25S R31E	3001543274	32° 8' 39.434" N	103° 43' 51.033" W	3,449.20
				Ground Elev MSL (ft)
				3,424.20
				RB - GL (ft)
				25.00

Date	MD (ft)	Incl (°)	Azml (°)	TVD (ft)	VS (ft)	NS (ft)	EW (ft)	DLS (ft)	Survey Tool	Survey Company
11/12/2...	12,857.00	91.98	0.39	10,379.66	2,654.36	2,635.97	414.97	1.87	MWD	PATHFINDER
11/12/2...	12,746.00	90.13	0.68	10,378.02	2,743.28	2,724.94	415.81	2.11	MWD	PATHFINDER
11/12/2...	12,835.00	89.34	0.47	10,378.43	2,832.17	2,813.94	416.71	0.92	MWD	PATHFINDER
11/12/2...	12,924.00	90.31	359.83	10,378.70	2,921.05	2,902.94	416.94	1.31	MWD	PATHFINDER
11/12/2...	13,013.00	89.60	358.64	10,378.77	3,009.85	2,991.93	415.76	1.56	MWD	PATHFINDER
11/12/2...	13,103.00	90.31	358.54	10,378.85	3,098.58	3,081.60	413.54	0.80	MWD	PATHFINDER
11/12/2...	13,192.00	88.81	358.32	10,379.53	3,188.28	3,170.88	411.10	1.70	MWD	PATHFINDER
11/12/2...	13,281.00	89.60	359.00	10,380.76	3,277.01	3,259.82	409.02	1.17	MWD	PATHFINDER
11/12/2...	13,370.00	90.84	359.57	10,380.42	3,365.82	3,348.82	407.91	1.53	MWD	PATHFINDER
11/27/2...	13,479.00	91.71	359.99	10,378.00	3,474.61	3,457.79	407.49	0.89	MWD	PATHFINDER
11/27/2...	13,568.00	90.66	359.31	10,378.16	3,563.43	3,546.76	406.96	1.41	MWD	PATHFINDER
11/27/2...	13,657.00	90.57	359.73	10,375.20	3,652.28	3,635.76	406.20	0.48	MWD	PATHFINDER
11/27/2...	13,746.00	90.75	359.78	10,374.18	3,741.10	3,724.75	405.82	0.21	MWD	PATHFINDER
11/27/2...	13,836.00	89.78	358.80	10,373.76	3,830.90	3,814.74	404.71	1.53	MWD	PATHFINDER
11/27/2...	13,925.00	89.52	357.61	10,374.30	3,919.58	3,903.69	401.82	1.37	MWD	PATHFINDER
11/27/2...	14,014.00	90.40	356.35	10,374.37	4,008.08	3,992.57	397.23	1.73	MWD	PATHFINDER
11/27/2...	14,103.00	91.10	355.44	10,373.20	4,096.37	4,081.33	390.86	1.29	MWD	PATHFINDER
11/27/2...	14,193.00	92.33	355.53	10,370.51	4,185.55	4,171.01	383.78	1.37	MWD	PATHFINDER
11/28/2...	14,282.00	93.12	355.10	10,368.28	4,273.63	4,259.61	376.52	1.01	MWD	PATHFINDER
11/28/2...	14,371.00	92.51	355.26	10,361.90	4,361.68	4,348.19	369.05	0.71	MWD	PATHFINDER
11/28/2...	14,461.00	90.66	355.85	10,359.42	4,450.88	4,437.88	362.08	2.16	MWD	PATHFINDER
11/28/2...	14,550.00	90.48	356.55	10,358.53	4,539.23	4,526.88	356.18	0.81	MWD	PATHFINDER
11/28/2...	14,639.00	90.31	356.32	10,357.92	4,627.80	4,615.58	352.20	2.00	MWD	PATHFINDER
11/28/2...	14,729.00	88.72	358.35	10,358.68	4,717.49	4,705.54	346.58	1.77	MWD	PATHFINDER
11/28/2...	14,818.00	89.10	357.47	10,360.37	4,806.11	4,794.48	346.34	1.08	MWD	PATHFINDER
11/29/2...	14,908.00	89.10	359.18	10,361.78	4,895.79	4,884.41	343.71	1.90	MWD	PATHFINDER
11/29/2...	14,997.00	89.61	0.28	10,362.79	4,984.83	4,973.40	343.29	1.36	MWD	PATHFINDER
11/29/2...	15,086.00	90.39	0.30	10,362.79	5,073.53	5,062.40	343.74	0.88	MWD	PATHFINDER
11/29/2...	15,176.00	88.83	359.72	10,363.32	5,163.40	5,152.39	343.75	1.75	MWD	PATHFINDER
11/29/2...	15,265.00	91.45	1.76	10,363.03	5,252.31	5,241.37	344.90	3.64	MWD	PATHFINDER
11/29/2...	15,354.00	91.55	2.57	10,360.70	5,341.27	5,330.28	348.26	0.92	MWD	PATHFINDER
11/29/2...	15,444.00	90.83	2.41	10,358.83	5,431.24	5,420.17	352.17	0.82	MWD	PATHFINDER
11/29/2...	15,533.00	90.04	1.67	10,358.15	5,520.23	5,509.11	355.34	1.22	MWD	PATHFINDER
11/29/2...	15,623.00	89.54	1.02	10,358.48	5,610.19	5,599.09	357.45	0.91	MWD	PATHFINDER
11/29/2...	15,712.00	89.16	1.08	10,359.49	5,699.12	5,688.07	359.08	0.43	MWD	PATHFINDER
11/29/2...	15,801.00	89.04	0.52	10,360.57	5,788.06	5,775.05	360.05	0.83	MWD	PATHFINDER
12/2/2015	15,891.00	88.90	0.64	10,361.26	5,876.02	5,865.04	360.43	0.49	MWD	PATHFINDER
12/2/2015	15,980.00	86.70	0.89	10,364.71	5,965.87	5,954.96	361.47	2.45	MWD	PATHFINDER
12/2/2015	15,998.00	87.58	0.53	10,369.15	6,054.88	6,043.85	362.42	1.00	MWD	PATHFINDER
12/2/2015	16,087.00	87.41	1.91	10,373.04	6,143.54	6,132.74	364.31	1.56	MWD	PATHFINDER
12/2/2015	16,177.00	87.65	2.13	10,378.76	6,232.45	6,221.61	367.48	0.55	MWD	PATHFINDER
12/2/2015	16,266.00	87.93	2.58	10,380.04	6,321.38	6,310.47	371.14	0.51	MWD	PATHFINDER
12/2/2015	16,356.00	88.29	2.84	10,383.01	6,410.33	6,399.32	375.39	0.49	MWD	PATHFINDER
12/2/2015	16,445.00	88.90	3.18	10,385.19	6,499.31	6,488.17	380.06	0.78	MWD	PATHFINDER
12/2/2015	16,534.00	88.11	2.55	10,387.51	6,588.27	6,577.03	384.51	1.14	MWD	PATHFINDER
12/2/2015	16,624.00	88.72	2.56	10,390.00	6,677.24	6,666.00	388.52	0.68	MWD	PATHFINDER
12/2/2015	16,713.00	88.98	3.18	10,391.78	6,766.22	6,755.00	392.96	0.74	MWD	PATHFINDER
12/2/2015	16,802.00	88.20	3.40	10,393.96	6,855.19	6,844.00	398.05	0.93	MWD	PATHFINDER
12/2/2015	16,891.00	88.90	3.75	10,396.22	6,944.15	6,933.00	403.61	0.88	MWD	PATHFINDER
12/2/2015	16,980.00	88.20	3.52	10,398.47	7,033.12	7,022.00	409.26	0.93	MWD	PATHFINDER
12/2/2015	17,070.00	88.81	4.17	10,400.82	7,122.08	7,111.00	415.29	0.99	MWD	PATHFINDER
12/2/2015	17,159.00	88.81	3.55	10,402.66	7,211.05	7,200.00	421.28	0.70	MWD	PATHFINDER
12/3/2015	17,248.00	88.46	2.18	10,404.78	7,300.03	7,289.00	427.73	1.59	MWD	PATHFINDER
12/3/2015	17,338.00	88.46	1.98	10,407.20	7,389.08	7,378.00	434.98	0.24	MWD	PATHFINDER
12/3/2015	17,427.00	88.46	2.25	10,409.60	7,478.13	7,467.00	442.24	0.33	MWD	PATHFINDER
12/3/2015	17,516.00	89.96	2.62	10,410.82	7,567.18	7,556.00	449.52	1.74	MWD	PATHFINDER
12/3/2015	17,605.00	90.04	1.29	10,410.82	7,656.23	7,645.00	456.77	1.50	MWD	PATHFINDER
12/3/2015	17,694.00	90.22	1.14	10,410.82	7,745.28	7,734.00	464.02	0.26	MWD	PATHFINDER
12/3/2015	17,784.00	90.57	1.11	10,410.00	7,834.33	7,823.00	471.27	0.39	MWD	PATHFINDER
12/3/2015	17,874.00	90.57	1.11	10,409.37	7,923.38	7,912.00	478.52	0.00	BIT	PATHFINDER