

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTNM OIL & GAS CONSERVATION DISTRICT
ARTESIAN
AUG 29 2017
RECEIVEDFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**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.***SUBMIT IN TRIPLICATE - Other instructions on page 2**

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other <i>chisholm</i>		5. Lease Serial No. NMNM113944
2. Name of Operator NEARBURG PRODUCING COMPANY		6. If Indian, Allottee or Tribe Name
Contact: BETTIE WATSON E-Mail: bettie@watsonreg.com		7. If Unit or CA/Agreement, Name and/or No.
3a. Address 3300 NORTH A STREET BLDG 2 STE 120 MIDLAND, TX 79705	3b. Phone No. (include area code) Ph: 972-979-0132	8. Well Name and No. COTTONWOOD 28 33 FEDERAL 3H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 21 T26S R26E SESE 150FSL 1030FEL		9. API Well No. 30-015-43687-00-X1
		10. Field and Pool or Exploratory Area WILDCAT <i>Purple Sage WCA</i>
		11. County or Parish, State EDDY COUNTY, 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	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original APD
	☐ 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.

A. Change of Well Name from: Cottonwood 28-33 Federal 3H
to: COTTONWOOD 28-33 FED WCA 3H

B. Change of SHL from: 150' FSL & 1030' FEL (Plat attached)
to: 200' FSL & 1030' FEL

C. Change of FIELD/POOL FROM: WILDCAT; BONE SPRINGS
TO: 98220 PURPLE SAGE WOLFCAMP

D. Change to the below listing is: (information sheet attached)
Proposed Depth
Formation Depths

*Eng Okay**CRW 8/21/17**ck Bel Ballard 8-22-2017
Surface Good IR*

14. I hereby certify that the foregoing is true and correct. Electronic Submission #384913 verified by the BLM Well Information System For NEARBURG PRODUCING COMPANY, sent to the Carlsbad Committed to AFMSS for processing by CHRISTOPHER WALLS on 08/17/2017 (17CRW0047SE)	
Name (Printed/Typed) BETTIE WATSON	Title AGENT
Signature (Electronic Submission)	Date 08/16/2017

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <i>Cody L. Layton</i>	Title <i>AFM - Lands & Minerals</i>	Date <i>8/22/17</i>
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 <i>CFO</i>

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.

(Instructions on page 2)

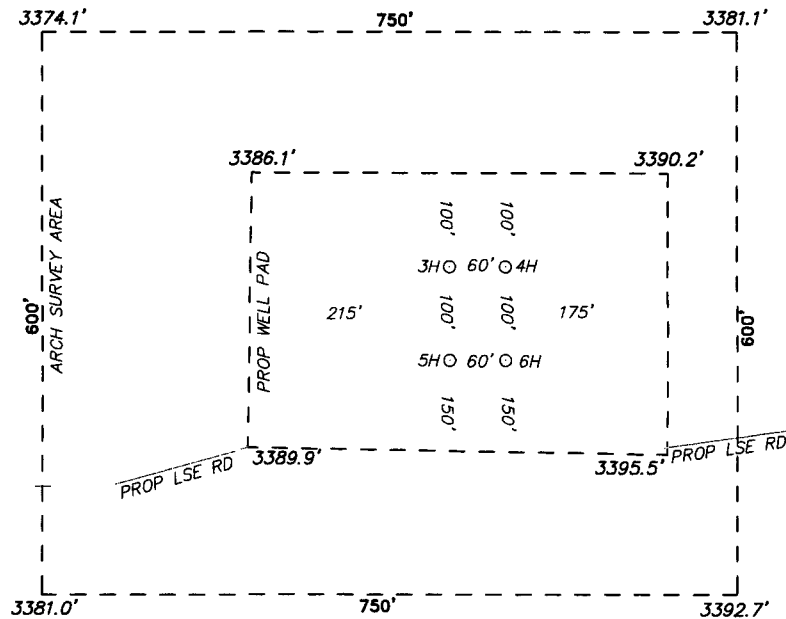
**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

Additional data for EC transaction #384913 that would not fit on the form

32. Additional remarks, continued

Intermediate & Production Casing Design
Update Intermediate Cement Design
Update Production Cement Design - REMOVE DV tool in production string
Mud Program

SECTION 21, TOWNSHIP 26 SOUTH, RANGE 26 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



CHISHOLM ENERGY OPERATING, LLC
COTTONWOOD 28-33 FED WCA 3H
ELEV. - 3384'

Lat - N 32.02102940°
Long - W 104.29259768°
NMSPCE- N 371391.7
E 553962.2
(NAD-83)

WHITES CITY, NM IS ±12 MILES TO THE NORTHWEST OF LOCATION.

200 0 200 400 FEET
SCALE: 1" = 200'

Directions to Location:

FROM THE JUNCTION OF CREOSOTE RD AND WHITES CITY RD, FOLLOW WHITES CITY RD 4 MILES AND TURN RIGHT (SOUTH) ONTO LEASE RD 3.75 MILES TO PROPOSED LEASE ROAD DUE WEST.

CHISHOLM ENERGY OPERATING, LLC

REF: COTTONWOOD 28-33 FED WCA 3H / WELL PAD TOPO

THE COTTONWOOD 28-33 FED COM WCA 3H LOCATED 200' FROM

THE SOUTH LINE AND 1030' FROM THE EAST LINE OF

SECTION 21, TOWNSHIP 26 SOUTH, RANGE 26 EAST,

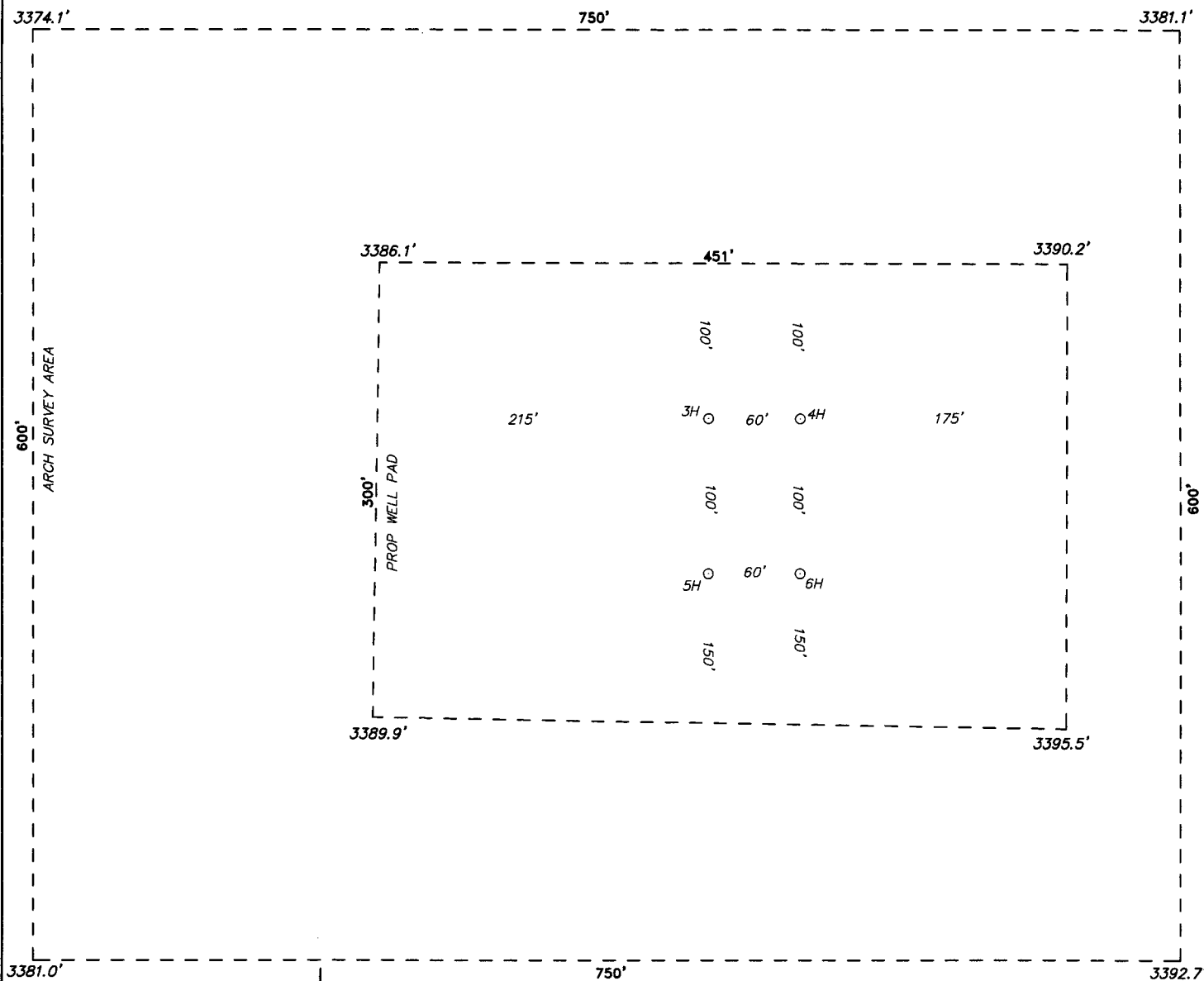
N.M.P.M., EDDY COUNTY, NEW MEXICO.

Basin
surveys

focused on creating accurate maps for the oilfield
112 West County, Hobbs, New Mexico 88241
392-2206
basinsurveys.com

W.O. Number: 33119 Drawn By: K. GOAD Date: 07-24-2017 Survey Date: 07-11-2017 Sheet 1 of 1 Sheets

SECTION 21, TOWNSHIP 26 SOUTH, RANGE 26 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO.



100 0 100 200 FEET
SCALE: 1" = 100'

CHISHOLM ENERGY OPERATING, LLC

REF: COTTONWOOD 28-33 FED WCA 3H / WELL PAD TOPO

THE COTTONWOOD 28-33 FED COM WCA 3H LOCATED 200' FROM

THE SOUTH LINE AND 1030' FROM THE EAST LINE OF

SECTION 21, TOWNSHIP 26 SOUTH, RANGE 26 EAST,

N.M.P.M., EDDY COUNTY, NEW MEXICO.

basin
surveys

Box 116, 5th Floor, Suite 100, 120 N. West, Omaha, NE 68102, 402.466.1206
Focused on excellence in the field, basinsurveys.com

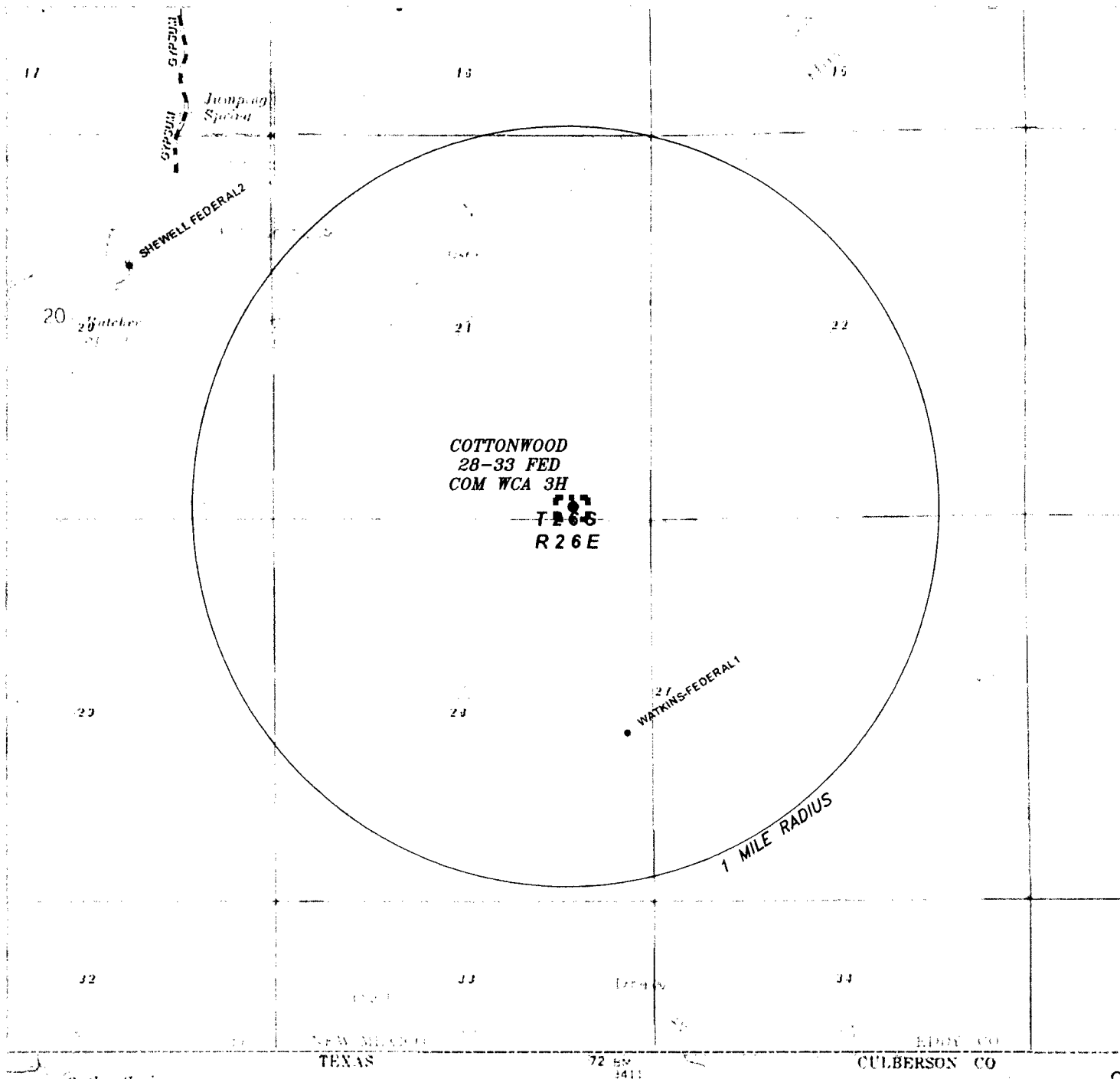
W.O. Number: 33119

Drawn By: K. GOAD

Date: 07-24-2017

Survey Date: 07-11-2017

Sheet 1 of 1 Sheets



COTTONWOOD 28-33 FED WCA 3H

Located 200' NMI and 1090' PBL
 Section 21, Township 23 South, Range 26 East
 N.M. Plat Eddy County New Mexico.

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surveys

focused on excellence
 in the field

P.O. Box 786
 1420 N. West Hwy Rd.
 Hobbs, New Mex 88241
 (505) 263-1111 Office
 (505) 262-2206 Fax
 basin-surveys.com

Scale: 1" = 2000'
 W.O. per KUG 3.1
 Surveyed 03/14/20
 YELLOW PIN - USA LAND
 BLUE PIN - STATE LAND
 NATURAL COLOR FIELD NO.

CHISHOLM
ENERGY
OPERATING, LLC

R-26-E

36 31

36 31

1 6

6

T-25-S
R-25-E

T-25-S
R-26-E

T-25-S
R-27-E

36 31

36 31

1 6

6

T-26-S
R-25-E

T-26-S
R-26-E

T-26-S
R-27-E



36 31

36 31

COTTONWOOD 28-33 FED WCA 3H

located 200' PSI and 1030' TSS
 6 1/2 mi 21 Township 26 North Range 28 East,
 SAGUARO, Yuma County, New Mexico.

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measured expeller
 in the office

1/2 N. 4' 1/2
 Hrspt. 100' 1/2
 107 38
 107 382 2 1/2
 107 382 2 1/2

2 MI 4 MI
 100' 1/2
 Survey Lot 107 4 20
 YELLOW PINT LA LAND
 SURVEY SITE LAND
 NATURAL GAS FIELD NO



CHISHOLM
ENERGY
OPERATING, LLC



COTTONWOOD 28-33 FED WCA 3H

Located 200' ESE and 1030' EBL
 Section 21 Township 26 South, Range 26 E. L.
 N.M.P.M., Gddy County, New Mexico.

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P.O. Box 1 36
 Hobbs, New Mexico 88441
 (505) 333-3311
 (505) 392-2216
 Fax: (505) 392-2216

Scale 1" = 2000'
 Survey Date 01/04/2000
 YFLD Inv US LAM
 BLK TINT A/E 400
 NATKA FEB 1 2000

CHISHOLM
ENERGY
OPERATING, LLC

26. Eddy NM

Well Name: Cottonwood 28-33 Federal

Well Number: 3H

28: a) Change Well Name

From: Cottonwood 28-33 Federal 3H

To: Cottonwood 28-33 Fed WCA 3H

b) Move SHL

From: 150' FSL and 1030' FEL

To: 200' FSL and 1030' FEL

c) Change Formation

From: Bone Spring

To: Wolfcamp

d) Proposed Depth

From: 6,800' TVD; 13,954' MD

To: 8,500' TVD; 15,660' MD

e) Formation Depths

FORMATION	TVD, ft	TVDSS, ft	LITHOLOGY	RES OBJ/CONTENTS
Castile	73	3340	Anhy & Salt	
Delaware Mtn Gr	1743	1670	SS, SLTST, & SH	
Bone Spring	5333	-1920	LS & SH	
1st Bone Spring SS	6208	-2795	SS, SLTST, & SH	
2nd Bone Spring SS	6713	-3300	SS, SLTST, & SH	
3rd Bone Spring LS	7153	-3740	LS, SS, & SH	
3rd Bone Spring SS	8028	-4615	SS, SLTST, & SH	
Wolfcamp	8363	-4950	SLTST, LS, & SH	
Wolfcamp "Y"	8478	-5065	SS & SH	WC "Y" SS, O & G
Wolfcamp "B"	8908	-5495	LS & SH	

f) Intermediate and Production Casing Design

Hole Size	Casing Interval		Csg. Size	Wt. (lbs)	Grade	Conn	SF Collapse	SF Burst	SF Tension
	From	To							
12.25"	0	5350	9.625"	40	J-55	LTC	1.36	1.39	2.50
8.75"	0	15660	5.5"	17	P-110	BTC	1.61	2.29	4.68
<u>Intermediate</u>									
Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:							10.2	ppg
Collapse	A 1.125 design factor with 1/3 TVD internal evacuation and collapse force equal to a mud gradient of:							10.2	ppg
Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:							10.2	ppg
<u>Production</u>									
Tension	A 1.8 design factor with effects of buoyancy with a fluid equal to a mud weight of:							10.5	ppg
Collapse	A 1.125 design factor with full internal evacuation and collapse force equal to a mud gradient of:							10.5	ppg
Burst	A 1.125 design factor with full external evacuation and burst force equal to a mud gradient of:							10.5	ppg

g) Update Intermediate Cement Design

Intermediate	Sacks	Yield (cuft/sk)	Weight (ppg)	Cubic Feet	Cement Blend
Lead	1312	2.31	12.0	568	High-Yield Class H Blend + LCM + Defoamer + Sodium Metasilicate
Tail	162	1.21	14.4	134	Class H 50:50 Poz + Fluid Loss Additive + Dispersant

h) Update Production Cement Design- REMOVE DV tool in production string

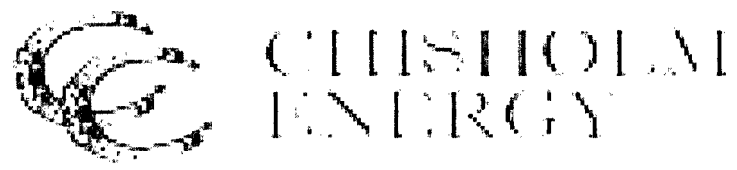
Production	Sacks	Yield (cuft/sk)	Weight (ppg)	Cubic Feet	Cement Blend
Tail	2845	1.15	15.8	3271	Premium Class H + Retarder + Defoamer + Dispersant + Fluid Loss Agent + Suspension Agent

*25% Excess

**Top of cement = 4350' MD (1000' Inside Intermediate Casing)

i) Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	420	FW Gel	8.4-8.8	34-36	N/C
420	5300	Brine	10.0-10.2	28-30	N/C
5300	15660	Oil Base	10.0-10.5	35-40	N/C



NM OIL CONSERVATION

ARTESIA DISTRICT

AUG 29 2017

RECEIVED

Chisholm Energy Holdings, LLC

Eddy County, NM (NAD83)

Sec 21, T 26 S, R 26 E

Cottonwood 28-33 Fed WCA 3H

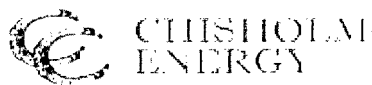
Wellbore #1

Plan: Plan #1

Standard Survey Report

18 August, 2017





Integrity Directional Services, LLC

Survey Report



Company: Chisholm Energy Holdings, LLC
Project: Eddy County, NM (NAD83)
Site: Sec 21, T 26 S, R 26 E
Well: Cottonwood 28-33 Fed WCA 3H
Wellbore: Wellbore #1
Design: Plan #1

Local Co-ordinate Reference: Well Cottonwood 28-33 Fed WCA 3H
TVD Reference: KB=22' @ 3406.00ft (Nabors M55)
MD Reference: KB=22' @ 3406.00ft (Nabors M55)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Project	Eddy County, NM (NAD83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site Sec 21, T 26 S, R 26 E

Site Position:		Northing:	371,391.7000 usft	Latitude:	32.021029
From:	Map	Easting:	553,962.2000 usft	Longitude:	-104.292598
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence:	0.02 °

Well Cottonwood 28-33 Fed WCA 3H

Well Position	+N/-S	0.00 ft	Northing:	371,391.7000 usft	Latitude:	32.021029
	+E/-W	0.00 ft	Easting:	553,962.2000 usft	Longitude:	-104.292598
Position Uncertainty		0.00 ft	Wellhead Elevation:	0.00 ft	Ground Level:	3,384.00 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	8/18/2017	7.47	59.65	47,905

Design Plan #1

Audit Notes:

Version: **Phase:** PLAN **Tie On Depth:** 0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	179.59

Survey Tool Program **Date** 8/18/2017

From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
0.00	15,814.64	Plan #1 (Wellbore #1)	MWD	MWD - Standard

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00



Integrity Directional Services, LLC

Survey Report



Company: Chisholm Energy Holdings, LLC
Project: Eddy County, NM (NAD83)
Site: Sec 21, T 26 S, R 26 E
Well: Cottonwood 28-33 Fed WCA 3H
Wellbore: Wellbore #1
Design: Plan #1

Local Co-ordinate Reference: Well Cottonwood 28-33 Fed WCA 3H
TVD Reference: KB=22' @ 3406.00ft (Nabors M55)
MD Reference: KB=22' @ 3406.00ft (Nabors M55)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00



Integrity Directional Services, LLC

Survey Report

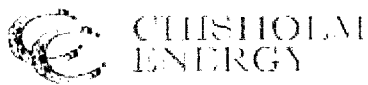


Company: Chisholm Energy Holdings, LLC
Project: Eddy County, NM (NAD83)
Site: Sec 21, T 26 S, R 26 E
Well: Cottonwood 28-33 Fed WCA 3H
Wellbore: Wellbore #1
Design: Plan #1

Local Co-ordinate Reference: Well Cottonwood 28-33 Fed WCA 3H
TVD Reference: KB=22' @ 3406.00ft (Nabors M55)
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Database: EDM 5000.1 Multi User Db

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00
7,825.38	0.00	0.00	7,825.38	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 12.00									
7,900.00	8.95	270.00	7,899.70	0.00	-5.82	-0.04	12.00	12.00	0.00
8,000.00	20.95	270.00	7,996.13	0.00	-31.58	-0.23	12.00	12.00	0.00
8,100.00	32.95	270.00	8,085.11	0.00	-76.82	-0.55	12.00	12.00	0.00
8,200.00	44.95	270.00	8,162.73	0.00	-139.58	-1.00	12.00	12.00	0.00
8,254.13	51.45	270.00	8,198.79	0.00	-179.91	-1.29	12.00	12.00	0.00
Start DLS 12.00 TFO -90.25									
8,300.00	51.64	262.97	8,227.34	-2.20	-215.72	0.66	12.00	0.41	-15.32
8,400.00	53.46	248.02	8,288.36	-22.11	-292.16	20.02	12.00	1.82	-14.96
8,500.00	57.04	234.06	8,345.55	-61.92	-363.64	59.31	12.00	3.58	-13.96
8,600.00	62.03	221.38	8,396.39	-119.89	-427.03	116.83	12.00	4.99	-12.68
8,700.00	68.07	209.94	8,438.66	-193.48	-479.56	190.05	12.00	6.04	-11.45
8,800.00	74.84	199.47	8,470.53	-279.49	-518.94	275.77	12.00	6.77	-10.46
8,900.00	82.06	189.68	8,490.59	-374.15	-543.45	370.25	12.00	7.22	-9.79
9,000.00	89.49	180.23	8,497.97	-473.33	-552.00	469.37	12.00	7.44	-9.45
9,006.78	90.00	179.59	8,498.00	-480.10	-551.99	476.14	12.00	7.48	-9.38
Start 6807.87 hold at 9006.78 MD									
9,100.00	90.00	179.59	8,498.00	-573.33	-551.33	569.37	0.00	0.00	0.00



Integrity Directional Services, LLC

Survey Report



Company: Chisholm Energy Holdings, LLC
Project: Eddy County, NM (NAD83)
Site: Sec 21, T 26 S, R 26 E
Well: Cottonwood 28-33 Fed WCA 3H
Wellbore: Wellbore #1
Design: Plan #1

Local Co-ordinate Reference: Well Cottonwood 28-33 Fed WCA 3H
TVD Reference: KB=22' @ 3406.00ft (Nabors M55)
MD Reference: KB=22' @ 3406.00ft (Nabors M55)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
9,200.00	90.00	179.59	8,498.00	-673.32	-550.63	669.37	0.00	0.00	0.00
9,300.00	90.00	179.59	8,498.00	-773.32	-549.92	769.37	0.00	0.00	0.00
9,400.00	90.00	179.59	8,498.00	-873.32	-549.21	869.37	0.00	0.00	0.00
9,500.00	90.00	179.59	8,498.00	-973.32	-548.50	969.37	0.00	0.00	0.00
9,600.00	90.00	179.59	8,498.00	-1,073.31	-547.79	1,069.37	0.00	0.00	0.00
9,700.00	90.00	179.59	8,498.00	-1,173.31	-547.09	1,169.37	0.00	0.00	0.00
9,800.00	90.00	179.59	8,498.00	-1,273.31	-546.38	1,269.37	0.00	0.00	0.00
9,900.00	90.00	179.59	8,498.00	-1,373.31	-545.67	1,369.37	0.00	0.00	0.00
10,000.00	90.00	179.59	8,498.00	-1,473.30	-544.96	1,469.37	0.00	0.00	0.00
10,100.00	90.00	179.59	8,498.00	-1,573.30	-544.25	1,569.37	0.00	0.00	0.00
10,200.00	90.00	179.59	8,498.00	-1,673.30	-543.55	1,669.37	0.00	0.00	0.00
10,300.00	90.00	179.59	8,498.00	-1,773.30	-542.84	1,769.37	0.00	0.00	0.00
10,400.00	90.00	179.59	8,498.00	-1,873.29	-542.13	1,869.37	0.00	0.00	0.00
10,500.00	90.00	179.59	8,498.00	-1,973.29	-541.42	1,969.37	0.00	0.00	0.00
10,600.00	90.00	179.59	8,498.00	-2,073.29	-540.72	2,069.37	0.00	0.00	0.00
10,700.00	90.00	179.59	8,498.00	-2,173.29	-540.01	2,169.37	0.00	0.00	0.00
10,800.00	90.00	179.59	8,498.00	-2,273.28	-539.30	2,269.37	0.00	0.00	0.00
10,900.00	90.00	179.59	8,498.00	-2,373.28	-538.59	2,369.37	0.00	0.00	0.00
11,000.00	90.00	179.59	8,498.00	-2,473.28	-537.88	2,469.37	0.00	0.00	0.00
11,100.00	90.00	179.59	8,498.00	-2,573.28	-537.18	2,569.37	0.00	0.00	0.00
11,200.00	90.00	179.59	8,498.00	-2,673.27	-536.47	2,669.37	0.00	0.00	0.00
11,300.00	90.00	179.59	8,498.00	-2,773.27	-535.76	2,769.37	0.00	0.00	0.00
11,400.00	90.00	179.59	8,498.00	-2,873.27	-535.05	2,869.37	0.00	0.00	0.00
11,500.00	90.00	179.59	8,498.00	-2,973.27	-534.34	2,969.37	0.00	0.00	0.00
11,600.00	90.00	179.59	8,498.00	-3,073.26	-533.64	3,069.37	0.00	0.00	0.00
11,700.00	90.00	179.59	8,498.00	-3,173.26	-532.93	3,169.37	0.00	0.00	0.00
11,800.00	90.00	179.59	8,498.00	-3,273.26	-532.22	3,269.37	0.00	0.00	0.00
11,900.00	90.00	179.59	8,498.00	-3,373.26	-531.51	3,369.37	0.00	0.00	0.00
12,000.00	90.00	179.59	8,498.00	-3,473.25	-530.80	3,469.37	0.00	0.00	0.00
12,100.00	90.00	179.59	8,498.00	-3,573.25	-530.10	3,569.37	0.00	0.00	0.00
12,200.00	90.00	179.59	8,498.00	-3,673.25	-529.39	3,669.37	0.00	0.00	0.00
12,300.00	90.00	179.59	8,498.00	-3,773.25	-528.68	3,769.37	0.00	0.00	0.00
12,400.00	90.00	179.59	8,498.00	-3,873.24	-527.97	3,869.37	0.00	0.00	0.00
12,500.00	90.00	179.59	8,498.00	-3,973.24	-527.26	3,969.37	0.00	0.00	0.00
12,600.00	90.00	179.59	8,498.00	-4,073.24	-526.56	4,069.37	0.00	0.00	0.00
12,700.00	90.00	179.59	8,498.00	-4,173.24	-525.85	4,169.37	0.00	0.00	0.00
12,800.00	90.00	179.59	8,498.00	-4,273.23	-525.14	4,269.37	0.00	0.00	0.00
12,900.00	90.00	179.59	8,498.00	-4,373.23	-524.43	4,369.37	0.00	0.00	0.00
13,000.00	90.00	179.59	8,498.00	-4,473.23	-523.73	4,469.37	0.00	0.00	0.00
13,100.00	90.00	179.59	8,498.00	-4,573.23	-523.02	4,569.37	0.00	0.00	0.00
13,200.00	90.00	179.59	8,498.00	-4,673.22	-522.31	4,669.37	0.00	0.00	0.00
13,300.00	90.00	179.59	8,498.00	-4,773.22	-521.60	4,769.37	0.00	0.00	0.00
13,400.00	90.00	179.59	8,498.00	-4,873.22	-520.89	4,869.37	0.00	0.00	0.00



Integrity Directional Services, LLC

Survey Report



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Project: Eddy County, NM (NAD83)
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Wellbore: Wellbore #1
Design: Plan #1

Local Co-ordinate Reference: Well Cottonwood 28-33 Fed WCA 3H
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MD Reference: KB=22' @ 3406.00ft (Nabors M55)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Planned Survey

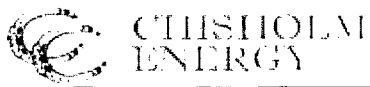
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
13,500.00	90.00	179.59	8,498.00	-4,973.22	-520.19	4,969.37	0.00	0.00	0.00
13,600.00	90.00	179.59	8,498.00	-5,073.21	-519.48	5,069.37	0.00	0.00	0.00
13,700.00	90.00	179.59	8,498.00	-5,173.21	-518.77	5,169.37	0.00	0.00	0.00
13,800.00	90.00	179.59	8,498.00	-5,273.21	-518.06	5,269.37	0.00	0.00	0.00
13,900.00	90.00	179.59	8,498.00	-5,373.21	-517.35	5,369.37	0.00	0.00	0.00
14,000.00	90.00	179.59	8,498.00	-5,473.20	-516.65	5,469.37	0.00	0.00	0.00
14,100.00	90.00	179.59	8,498.00	-5,573.20	-515.94	5,569.37	0.00	0.00	0.00
14,200.00	90.00	179.59	8,498.00	-5,673.20	-515.23	5,669.37	0.00	0.00	0.00
14,300.00	90.00	179.59	8,498.00	-5,773.20	-514.52	5,769.37	0.00	0.00	0.00
14,400.00	90.00	179.59	8,498.00	-5,873.19	-513.81	5,869.37	0.00	0.00	0.00
14,500.00	90.00	179.59	8,498.00	-5,973.19	-513.11	5,969.37	0.00	0.00	0.00
14,600.00	90.00	179.59	8,498.00	-6,073.19	-512.40	6,069.37	0.00	0.00	0.00
14,700.00	90.00	179.59	8,498.00	-6,173.19	-511.69	6,169.37	0.00	0.00	0.00
14,800.00	90.00	179.59	8,498.00	-6,273.18	-510.98	6,269.37	0.00	0.00	0.00
14,900.00	90.00	179.59	8,498.00	-6,373.18	-510.27	6,369.37	0.00	0.00	0.00
15,000.00	90.00	179.59	8,498.00	-6,473.18	-509.57	6,469.37	0.00	0.00	0.00
15,100.00	90.00	179.59	8,498.00	-6,573.18	-508.86	6,569.37	0.00	0.00	0.00
15,200.00	90.00	179.59	8,498.00	-6,673.17	-508.15	6,669.37	0.00	0.00	0.00
15,300.00	90.00	179.59	8,498.00	-6,773.17	-507.44	6,769.37	0.00	0.00	0.00
15,400.00	90.00	179.59	8,498.00	-6,873.17	-506.74	6,869.37	0.00	0.00	0.00
15,500.00	90.00	179.59	8,498.00	-6,973.17	-506.03	6,969.37	0.00	0.00	0.00
15,600.00	90.00	179.59	8,498.00	-7,073.16	-505.32	7,069.37	0.00	0.00	0.00
15,700.00	90.00	179.59	8,498.00	-7,173.16	-504.61	7,169.37	0.00	0.00	0.00
15,800.00	90.00	179.59	8,498.00	-7,273.16	-503.90	7,269.37	0.00	0.00	0.00
15,814.64	90.00	179.59	8,498.00	-7,287.80	-503.80	7,284.01	0.00	0.00	0.00
TD at 15814.64									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
28-33 Fed WCA 3H B	0.00	0.00	8,498.00	-7,287.80	-503.80	364,103.9146	553,458.4010	32.000996	-104.294232
- plan hits target center									
- Point									

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Comment
7825	7825	0	0	Start Build 12.00
8254	8199	0	-180	Start DLS 12.00 TFO -90.25
9007	8498	-480	-552	Start 6807.87 hold at 9006.78 MD
15,815	8498	-7288	-504	TD at 15814.64



Integrity Directional Services, LLC

Survey Report



Company: Chisholm Energy Holdings, LLC
Project: Eddy County, NM (NAD83)
Site: Sec 21, T 26 S, R 26 E
Well: Cottonwood 28-33 Fed WCA 3H
Wellbore: Wellbore #1
Design: Plan #1

Local Co-ordinate Reference: Well Cottonwood 28-33 Fed WCA 3H
TVD Reference: KB=22' @ 3406.00ft (Nabors M55)
MD Reference: KB=22' @ 3406.00ft (Nabors M55)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Multi User Db

Checked By: _____	Approved By: _____	Date: _____
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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) 748-1253 Fax: (575) 748-9720

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-8178 Fax: (505) 334-8170

DISTRICT IV

1226 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources Department

OIL CONSERVATION DIVISION

1226 South St. Francis Dr.
Santa Fe, New Mexico 87505

NM OIL CONSERVATION
ARTESIA DISTRICT

Form C-102

Revised August 1, 2011

AUG 29 2017

Submit one copy to appropriate
District Office

RECEIVED

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number 30-015-43687	Pool Code 98220	Pool Name Purple Sage Wolfcamp
Property Code 319570	Property Name COTTONWOOD 28-33 FED WCA	Well Number 3H
OGRID No. 372137	Operator Name CHISHOLM ENERGY OPERATING, LLC	Elevation 3384'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	FEET from the	North/South line	FEET from the	East/West Line	County
P	21	26 S	26 E		200	SOUTH	1030	EAST	EDDY

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
LOT 2	33	26 S	26 E		330	SOUTH	1980	EAST	EDDY
Dedicated Acres 225.71	Joint or Infill 225.21	Consolidation Code	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

SURFACE LOCATION
Lat - N 32.02102940°
Long - W 104.29259768°
NMSPCE- N 371391.7
E 553962.2
(NAD-83)

BOTTOM HOLE LOCATION
Lat - N 32.000994637°
Long - W 104.295505986°
NMSPCE- N 364103.4
E 553063.4
(NAD-83)

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.

8/16/17

Signature _____ Date _____

Bettie Watson
Printed Name
bettie@watsonreg.com
Email Address

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.

Date Surveyed _____

Signature & Seal of Professional Surveyor _____

Certificate No. 7977

Scale: 1" = 2000'

WO Num.: 33119