

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Hobbs

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014

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.
NMNM68820

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE – Other instructions on page 2

HOBBS OCD

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other

2. Name of Operator
Endurance Resources LLC

3a. Address
203 West Wall Suite 1000 Midland TX 79701

3b. Phone No. (include area code)
432-242-4680

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
330' FSL & 1980' FEL UL O Sec. 19 T23S R34E

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

8. Well Name and No.
Nocaster 19 Federal 3H

9. API Well No.
30-025-41448

10. Field and Pool or Exploratory Area
Antelope Ridge; Bone Spring, West

11. County or Parish, State
Lea New Mexico

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 <u>Change BHL</u>
	☐ 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 recompleat 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 recompleat 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.)

Endurance Resources respectfully requests to amend the bottom hole location from the previously submitted 330' FNL & 1980' FEL to 330' FNL & 2310' FEL.

Amended C-102 attached.

The projected MD will change from 14,873' to 14,886'. A revised directional plan for this new MD and amended bottom hole location is attached. In addition amended casing and cement programs are attached for amended MD.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

M. A. Sirgo, III

Title Engineer

Signature

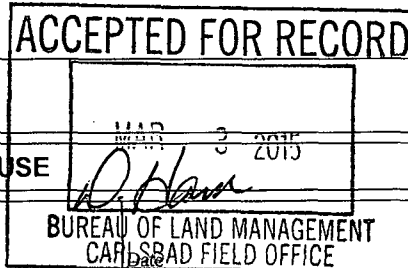
Date 08/18/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Office



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.

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)

AR 1 2 2015

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) 718-1285 Fax: (575) 718-0720
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 30-025-41448		² Pool Code 2209	³ Pool Name Antelope Ridge; Bone Spring, West
⁴ Property Code 40168	⁵ Property Name NOCASTER 19 FEDERAL		⁶ Well Number 3H
⁷ OGRID No. 270329	⁸ Operator Name ENDURANCE RESOURCES, LLC		⁹ Elevation 3602.9

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
O	19	23 S	34 E		330	SOUTH	1980	EAST	LEA

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
B	19	23 S	34 E		330	NORTH	2310	EAST	LEA

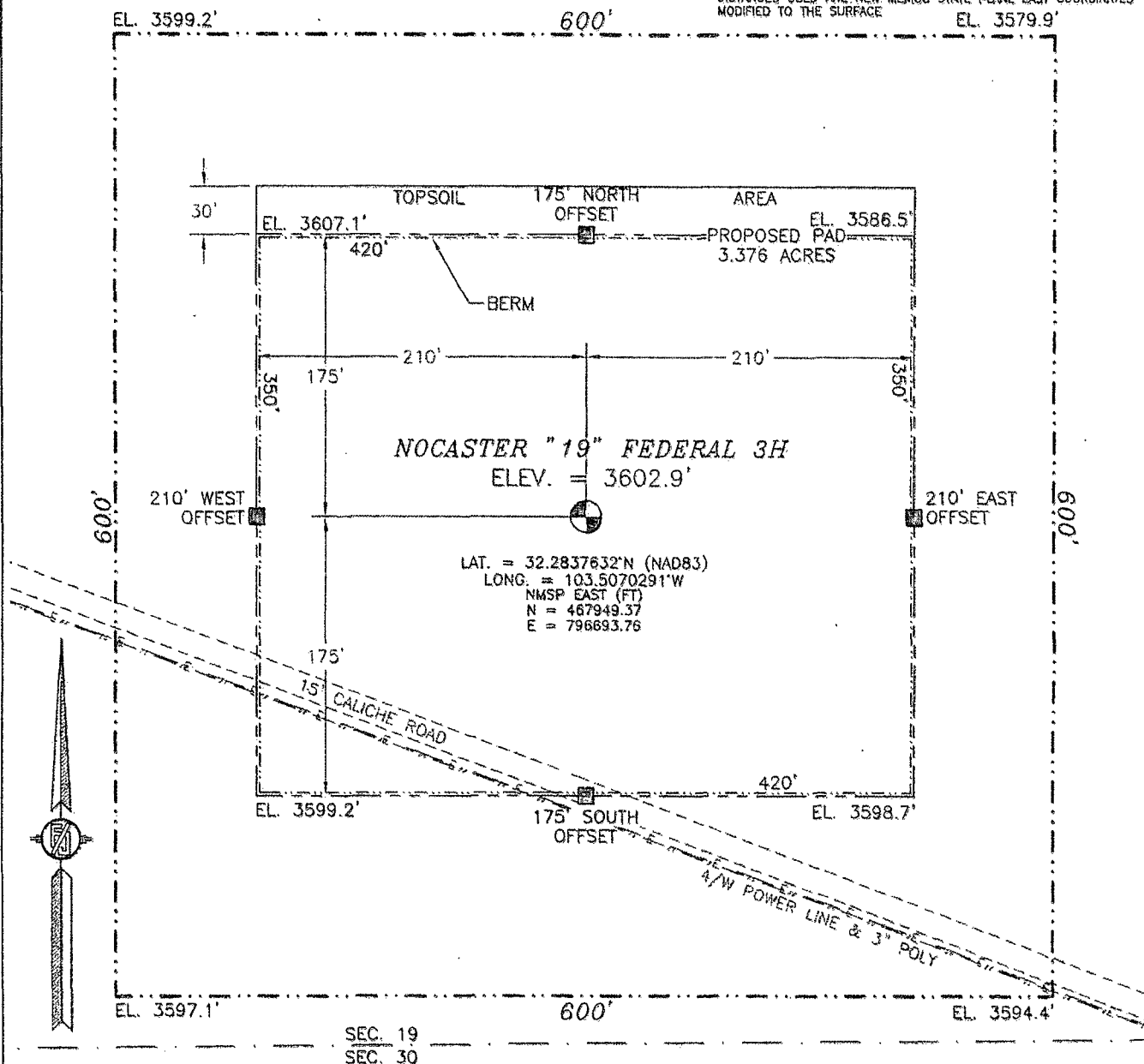
¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

N89°36'17"E 2606.08 FT NW CORNER SEC. 19 LAT. = 32.2973745°N LONG. = 103.5175145°W NMSP EAST (FT) N = 472876.37 E = 793415.66 LOT 1 NOTE: LATITUDE AND LONGITUDE COORDINATES ARE GIVEN 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. W O CORNER SEC. 19 LAT. = 32.2901228°N LONG. = 103.5175157°W NMSP EAST (FT) N = 470238.19 E = 793435.35 LOT 2 LOT 3 SW CORNER SEC. 19 LAT. = 32.2828605°N LONG. = 103.5175169°W NMSP EAST (FT) N = 467536.14 E = 793455.08 S O CORNER SEC. 19 LAT. = 32.2828576°N LONG. = 103.5091647°W NMSP EAST (FT) N = 467614.81 E = 796036.31 SE CORNER SEC. 19 LAT. = 32.2828520°N LONG. = 103.5006216°W NMSP EAST (FT) N = 467833.18 E = 798676.53 1800' 330' 2310' 330' 2639.99 FT 2640.37 FT 2642.82 FT 2581.77 FT 2640.78 FT 589°36'05"W 589°36'07"W		¹⁷ 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 undivided 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 issued by the division. <i>L. A. Sigo</i> 8-15-2014 Signature Date <i>M. A. Bizaro</i> Printed Name <i>uanny @ endurance</i> E-mail Address <i>resourcesllc.com</i> 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. JUNE 27, 2014 Date of Survey <i>[Signature]</i> Signature and Seal of Professional Surveyor Certificate Number: 12797 SURVEY NO. 1919A
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SECTION 19, TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA 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



010 50 100 200

SCALE 1" = 100'

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF STATE HIGHWAY 128 AND CR 21 (DELAWARE BASIN) GO NORTH ON CR 21 FOR APPROX. 5.1 MILES. TURN SOUTHEAST ON CALICHE LEASE ROAD (SOUTH OF TOWER) AND GO APPROX. 0.25 OF A MILE. LOCATION IS APPROX. 170' NORTH.

ENDURANCE RESOURCES, LLC
NOCASTER "19" FEDERAL 3H
LOCATED 330 FT. FROM THE SOUTH LINE
AND 1980 FT. FROM THE EAST LINE OF
SECTION 19, TOWNSHIP 23 SOUTH,
RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

JUNE 27, 2014

SURVEY NO. 1919A

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

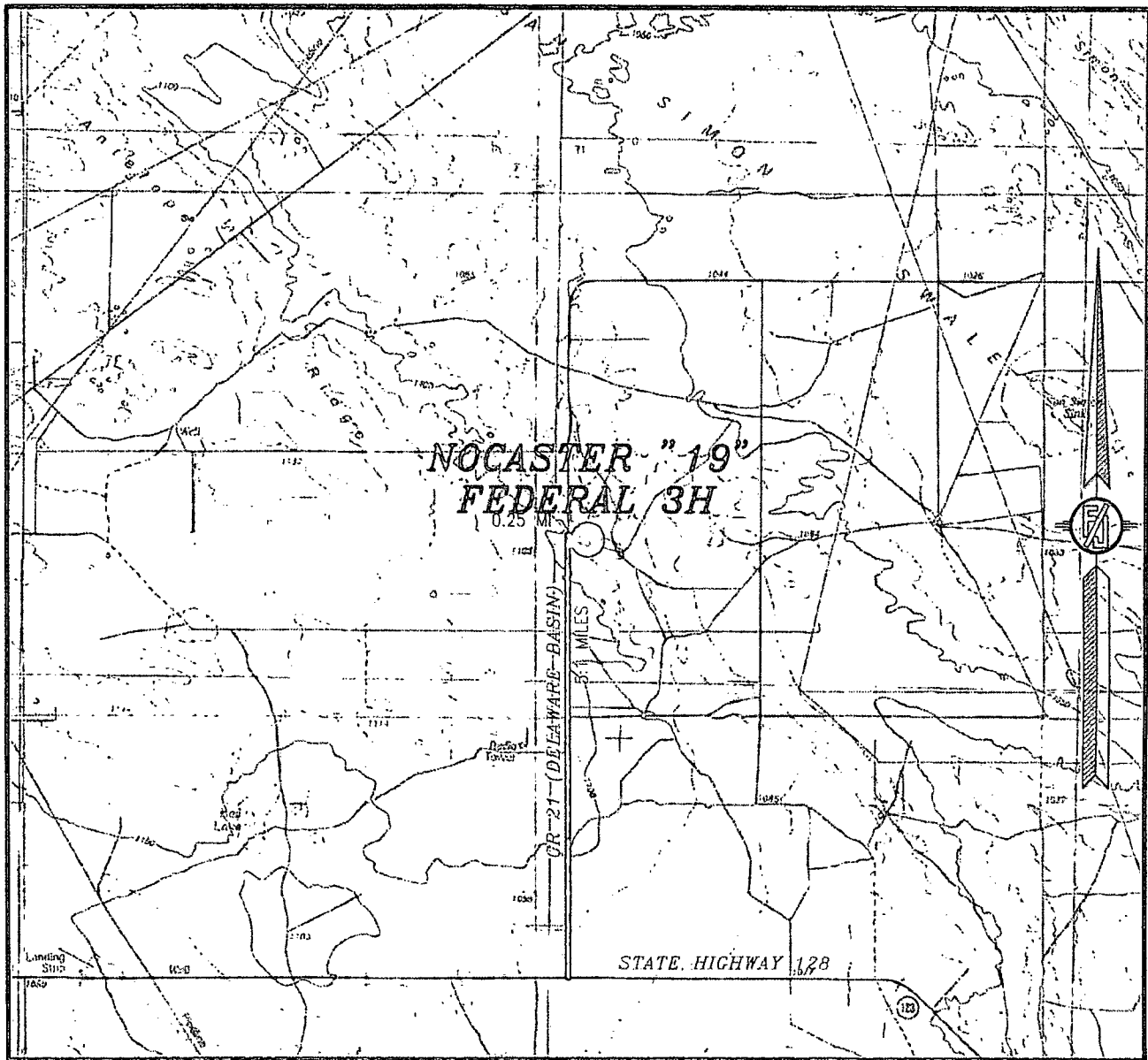
This is a topographic map of the NOCASTER FEDERAL 3H area. The map features a grid with section numbers 19, 20, 24, 25, 29, and 30. Contour lines are drawn at 10-foot intervals, with spot elevations marked at various points. Key features include a 'Drill Hole' in the upper left, an 'Oil Well' in the center, and a 'Gravel Pit' in the lower left. A north arrow is located on the right side of the map. The map also shows a road or path running through the center, and a small rectangular area marked with a square symbol.

NOT TO SCALE

JUNE 27, 2014

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
(375) 234-3341

SECTION 19, TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF STATE HIGHWAY 128 AND CR 21
(DELAWARE BASIN) GO NORTH ON CR 21 FOR APPROX. 5.1 MILES.
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GO APPROX. 0.25 OF A MILE. LOCATION IS APPROX. 170' NORTH.

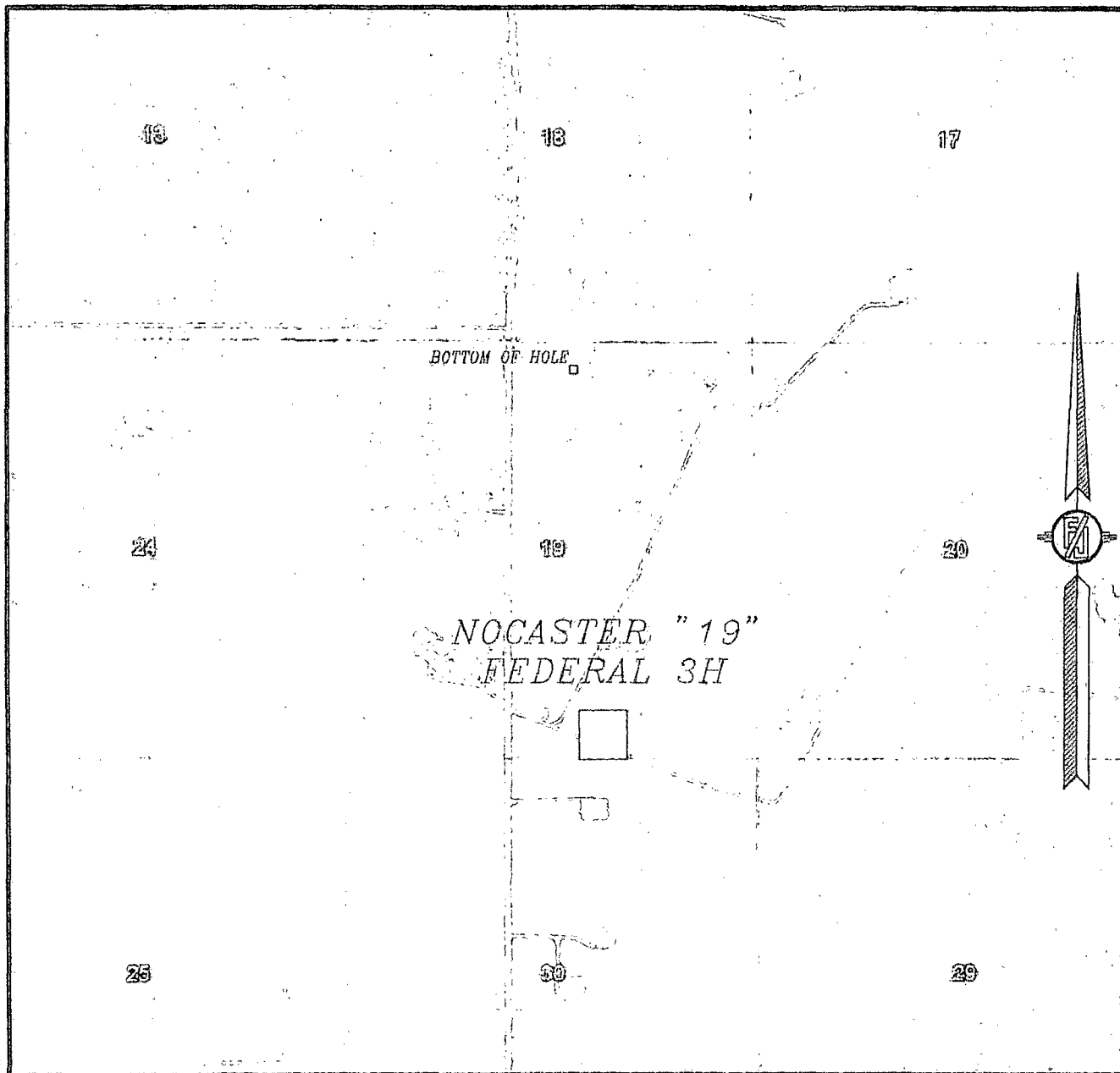
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LEA COUNTY, STATE OF NEW MEXICO

JUNE 27, 2014

SURVEY NO. 1919A

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

SECTION 19, TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
MARCH 2012

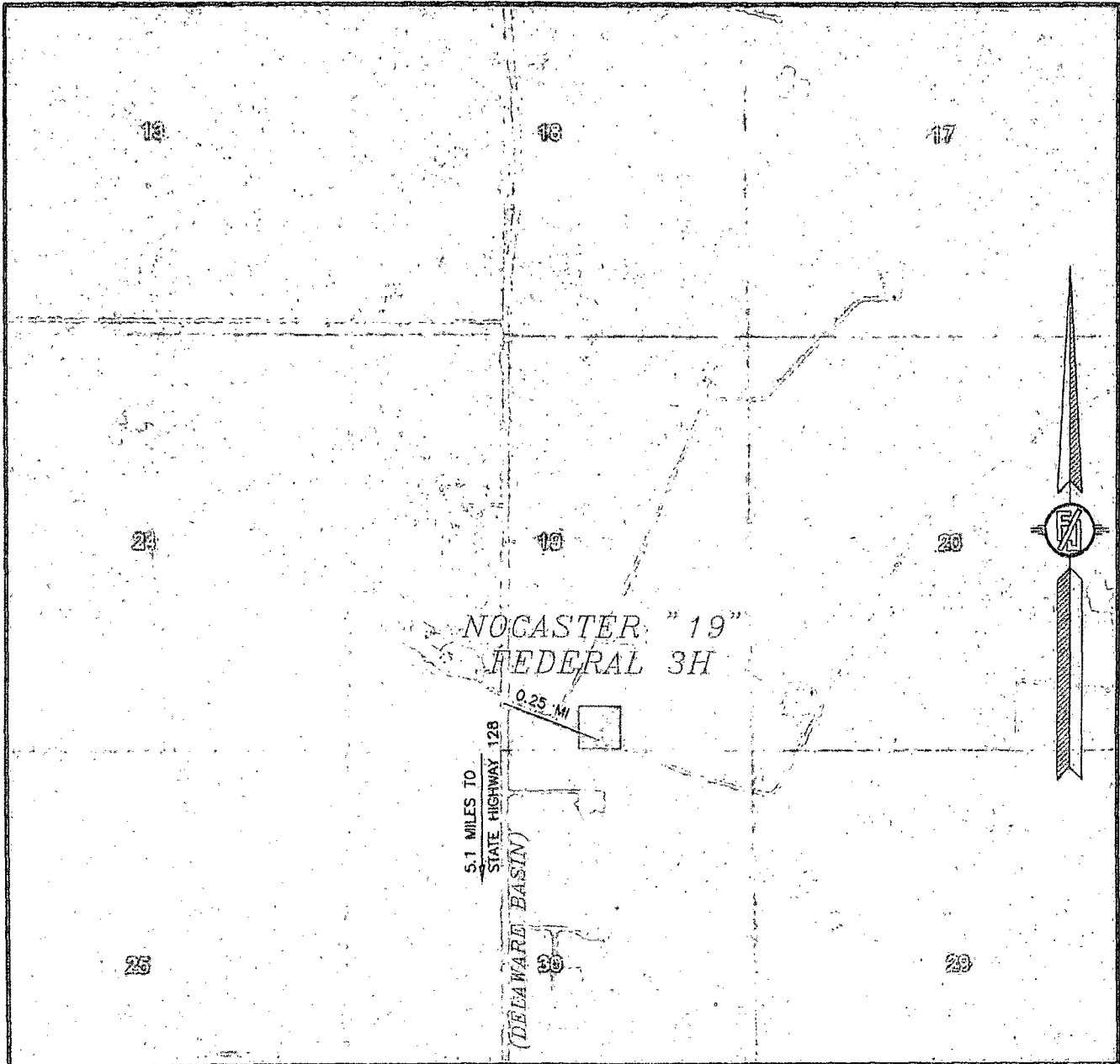
ENDURANCE RESOURCES, LLC
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LEA COUNTY, STATE OF NEW MEXICO

JUNE 27, 2014

SURVEY NO. 1919A

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

SECTION 19, TOWNSHIP 23 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
ACCESS AERIAL ROUTE MAP



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
MARCH 2012

ENDURANCE RESOURCES, LLC
NOCASTER "19" FEDERAL 3H
LOCATED 330 FT. FROM THE SOUTH LINE
AND 1980 FT. FROM THE EAST LINE OF
SECTION 19, TOWNSHIP 23 SOUTH,
RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

JUNE 27, 2014

SURVEY NO. 1919A

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

NOCASTER 19 FED 3H – Amended Casing and Cement Programs -8/15/2014

1. Proposed Casing Program – As Amended 07/14/2014:

Hole Size	Interval	CSG OD	CSG Interval	Weight	Collar	Grade
17.5"	0' – 1250'	13.375"	0 - 1250'	48#	BTC	J-55
12.25"	1250' – 5100'	9.625"	0 - 4350'	40#	STC	J-55
12.25"	1250-5100	9.625"	4350'-5100'	40#	LTC	HCL-80
8.75"	5100' - TD	5.5"	0 – 14886'	20#	BTC	HCP-110

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
13.375"	1.93	4.67	7.61
9.625"	1.14	1.75	2.60
9.625"	1.60	2.17	5.11
5.5"	1.75	2.17	1.91

NOTE: ALL CASING IS NEW & API APPROVED. WHILE RUNNING CASING, PIPE WILL BE KEPT A MINIMUM OF 1/3 FULL AT ALL TIMES TO AVOID APPROACHING COLLAPSE PRESSURE OF THE CASING. SURFACE CASING WILL BE WATCHED & NECESSARY ADJUSTMENTS MADE TO ENSURE PIPE IF FULL DUE TO LOST CIRCULATION ZONES THAT MAY OCCUR. CENTRALIZERS WILL BE USED ON SURFACE CASING

2. Proposed Cement Program – As Amended 07/14/2014:

Casing / Wellbore Description: Surface - 13 3/8" x 17 1/2" (54# / J-55 / BTC)					
Stage	Slurry Description	Weight (ppg)	Yield (ft. ³ /sk)	Sacks	% Excess
Lead	Class C, 4% Bentonite, 2% Calcium Chloride	13.7	1.68	620	100 (OH)
Tail	Class C	14.8	1.33	555	100
Casing / Wellbore Description: Intermediate 9 5/8" x 12 1/4" (40# / J-55,L-80 / STC,LTC)					
Stage	Slurry Description	Weight	Yield	Sacks	% Excess
Lead	65% Class C, 35% Poz, 6% Bentonite, .125 lb/sk Poly-E-Flake, .4% HR-800	12.9	1.77	1120	75 (OH)
Tail	Class C Cement	14.8	1.33	230	75
Casing / Wellbore Description: Production 5 1/2" x 8 3/4" (20# / HCP-110 / BTC)					
Stage	Slurry Description	Weight	Yield	Sacks	% Excess
Lead	50% Class H, 50% Poz, 10% Bentonite, .1% Fe-2, 5% Cal-Seal 60, .25 lb D-Air 5000	11.5	2.63	885	15 (OH)
Tail	50% Class H, 50% Poz, 2% Bentonite, .5% Halad-9, .2% Econolite, 3% KCL, .2% HR-601	14.2	1.31	910	15

NOTE: THE ABOVE CEMENT VOLUMES COULD BE REVISED PENDING FLUID CALIPER & CALIPER LOG DATA. ALL VOLUMES ARE DESIGNED TO CIRCULATE TO SURFACE. PRODUCTION CEMENT WILL BE CIRCULATED TO AT LEAST 200' ABOVE INTERMEDIATE CASING SHOE.

Endurance Resources LLC

HALLIBURTON
Sperry Drilling Services

Project: Lea County, NM (NAD 83)
Site: Nocaster 19 Federal
Well: Nocaster 19 Federal 3H
Wellbore: Wellbore #1
Plan: Plan #1 (Nocaster 19 Federal 3H)
Rig: Patriot 4

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9927.04	0.00	0.00	9927.04	0.00	0.00	0.00	0.00	0.00	Start Build @ 9927.04' MD
10827.04	90.00	355.37	10500.00	571.09	-46.25	10.00	355.37	571.50	End Build @ 10827.04' MD
14886.24	90.00	355.37	10500.00	4617.04	-373.90	0.00	0.00	4620.36	TD @ 14886' MD

WELLBORE TARGET DETAILS (MAP CO-ORDINATES AND LAT/LONG)

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Nocaster 19 Federal 3H PBHL	10500.00	4617.04	-373.90	472566.41	796319.86	32° 17' 47.261 N	103° 30' 29.246 W

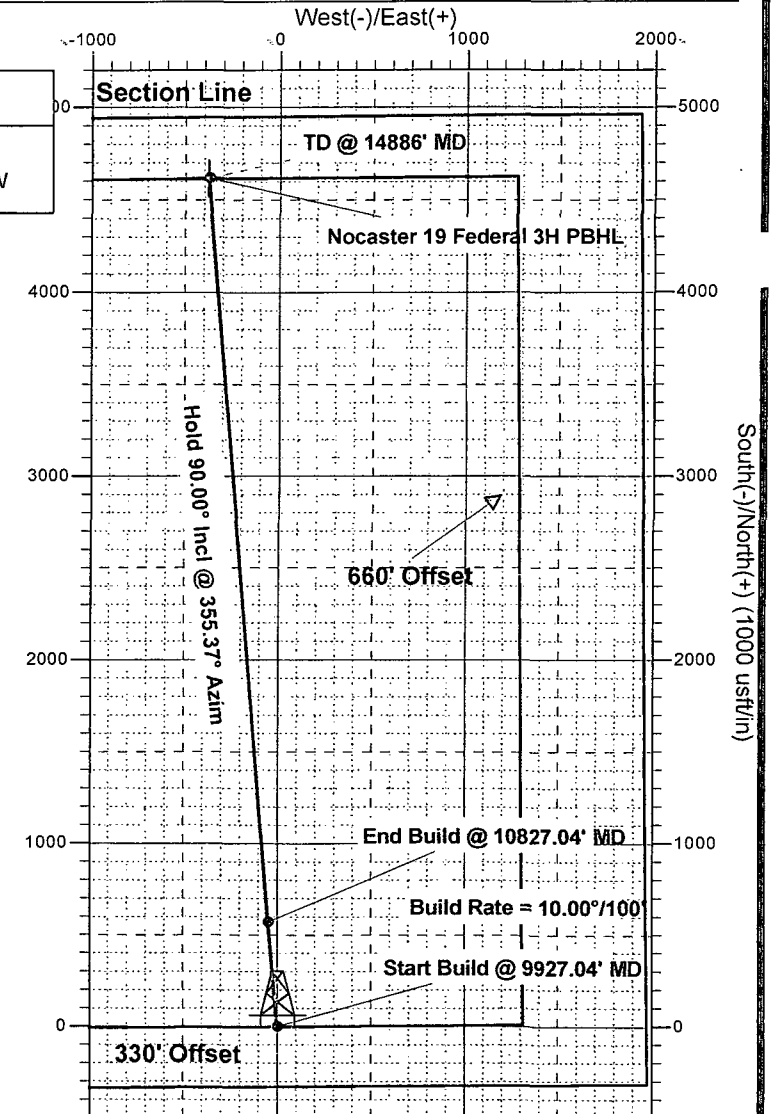
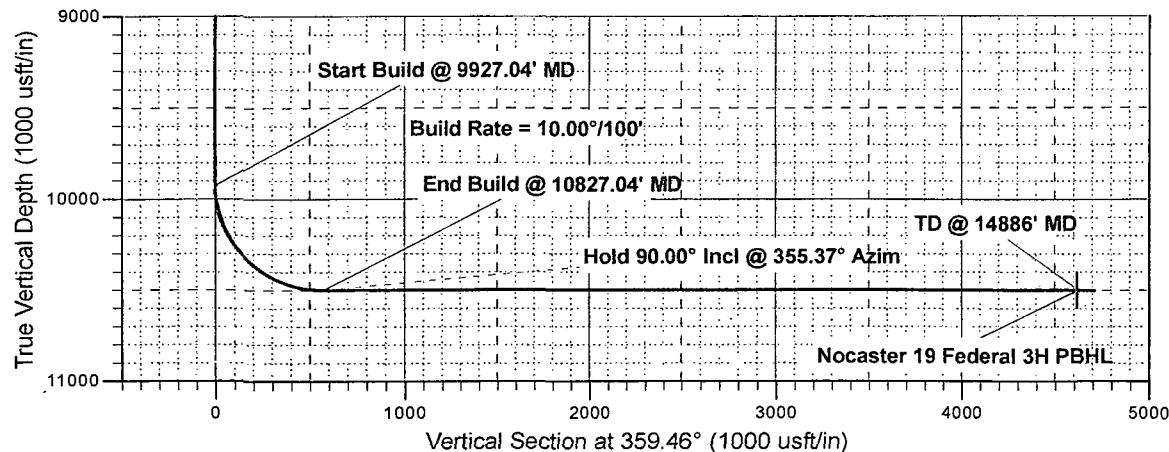
Surface Location:

US State Plane 1983
New Mexico Eastern Zone
Elevation: GE 3602.9' + KB 17' @ 3619.90usft (Patriot 4)

Northing	Easting	Latitude	Longitude
467949.37	796693.76	32° 17' 1.548 N	103° 30' 25.305 W

To convert a Magnetic Direction to a Grid Direction, Add 6.89°

Magnetic Model: BGGM2014 Date: 04-Aug-14
Azimuths to Grid North



Created By: Charlotte Sims

Endurance Resources LLC

Lea County, NM (NAD 83)

Nocaster 19 Federal

Nocaster 19 Federal 3H

Wellbore #1

Plan: Plan #1

Sperry Drilling Services Proposal Report

04 August, 2014

Well Coordinates: 467,949.37 N, 796,693.76 E (32° 17' 01.55" N, 103° 30' 25.30" W)

Ground Level: 3,602.90 usft

Local Coordinate Origin:

Centered on Well Nocaster 19 Federal 3H

Viewing Datum:

GE 3602.9' + KB 17' @ 3619.90usft (Patriot 4)

TVDs to System:

N

North Reference:

Grid

Unit System:

API - US Survey Feet

Version: 5000.1 Build: 72

HALLIBURTON

Plan Report for Nocaster 19 Federal 3H - Plan #1

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	Toolface Azimuth (°)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9,927.04	0.00	0.00	9,927.04	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build @ 9927.04' MD - Build Rate = 10.00°/100'										
10,000.00	7.30	355.37	9,999.80	4.62	-0.37	4.63	10.00	10.00	0.00	355.37
10,100.00	17.30	355.37	10,097.39	25.82	-2.09	25.84	10.00	10.00	0.00	0.00
10,200.00	27.30	355.37	10,189.79	63.59	-5.15	63.64	10.00	10.00	0.00	0.00
10,300.00	37.30	355.37	10,274.21	116.78	-9.46	116.86	10.00	10.00	0.00	0.00
10,400.00	47.30	355.37	10,348.09	183.77	-14.88	183.90	10.00	10.00	0.00	0.00
10,500.00	57.30	355.37	10,409.17	262.53	-21.26	262.72	10.00	10.00	0.00	0.00
10,600.00	67.30	355.37	10,455.60	350.67	-28.40	350.92	10.00	10.00	0.00	0.00
10,700.00	77.30	355.37	10,485.97	445.50	-36.08	445.82	10.00	10.00	0.00	0.00
10,800.00	87.30	355.37	10,499.36	544.15	-44.07	544.54	10.00	10.00	0.00	0.00
10,827.04	90.00	355.37	10,500.00	571.09	-46.25	571.50	10.00	10.00	0.00	0.00
End Build @ 10827.04' MD - Hold 90.00° Incl @ 355.37° Azim										
10,900.00	90.00	355.37	10,500.00	643.81	-52.14	644.27	0.00	0.00	0.00	0.00
11,000.00	90.00	355.37	10,500.00	743.48	-60.21	744.02	0.00	0.00	0.00	0.00
11,100.00	90.00	355.37	10,500.00	843.16	-68.28	843.76	0.00	0.00	0.00	0.00
11,200.00	90.00	355.37	10,500.00	942.83	-76.35	943.51	0.00	0.00	0.00	0.00
11,300.00	90.00	355.37	10,500.00	1,042.50	-84.42	1,043.25	0.00	0.00	0.00	0.00
11,400.00	90.00	355.37	10,500.00	1,142.18	-92.50	1,143.00	0.00	0.00	0.00	0.00
11,500.00	90.00	355.37	10,500.00	1,241.85	-100.57	1,242.75	0.00	0.00	0.00	0.00
11,600.00	90.00	355.37	10,500.00	1,341.53	-108.64	1,342.49	0.00	0.00	0.00	0.00
11,700.00	90.00	355.37	10,500.00	1,441.20	-116.71	1,442.24	0.00	0.00	0.00	0.00
11,800.00	90.00	355.37	10,500.00	1,540.87	-124.78	1,541.98	0.00	0.00	0.00	0.00
11,900.00	90.00	355.37	10,500.00	1,640.55	-132.86	1,641.73	0.00	0.00	0.00	0.00
12,000.00	90.00	355.37	10,500.00	1,740.22	-140.93	1,741.47	0.00	0.00	0.00	0.00
12,100.00	90.00	355.37	10,500.00	1,839.89	-149.00	1,841.22	0.00	0.00	0.00	0.00
12,200.00	90.00	355.37	10,500.00	1,939.57	-157.07	1,940.96	0.00	0.00	0.00	0.00
12,300.00	90.00	355.37	10,500.00	2,039.24	-165.14	2,040.71	0.00	0.00	0.00	0.00
12,400.00	90.00	355.37	10,500.00	2,138.92	-173.21	2,140.45	0.00	0.00	0.00	0.00
12,500.00	90.00	355.37	10,500.00	2,238.59	-181.29	2,240.20	0.00	0.00	0.00	0.00
12,600.00	90.00	355.37	10,500.00	2,338.26	-189.36	2,339.94	0.00	0.00	0.00	0.00
12,700.00	90.00	355.37	10,500.00	2,437.94	-197.43	2,439.69	0.00	0.00	0.00	0.00
12,800.00	90.00	355.37	10,500.00	2,537.61	-205.50	2,539.43	0.00	0.00	0.00	0.00
12,900.00	90.00	355.37	10,500.00	2,637.28	-213.57	2,639.18	0.00	0.00	0.00	0.00
13,000.00	90.00	355.37	10,500.00	2,736.96	-221.65	2,738.93	0.00	0.00	0.00	0.00
13,100.00	90.00	355.37	10,500.00	2,836.63	-229.72	2,838.67	0.00	0.00	0.00	0.00
13,200.00	90.00	355.37	10,500.00	2,936.31	-237.79	2,938.42	0.00	0.00	0.00	0.00
13,300.00	90.00	355.37	10,500.00	3,035.98	-245.86	3,038.16	0.00	0.00	0.00	0.00
13,400.00	90.00	355.37	10,500.00	3,135.65	-253.93	3,137.91	0.00	0.00	0.00	0.00
13,500.00	90.00	355.37	10,500.00	3,235.33	-262.01	3,237.65	0.00	0.00	0.00	0.00
13,600.00	90.00	355.37	10,500.00	3,335.00	-270.08	3,337.40	0.00	0.00	0.00	0.00
13,700.00	90.00	355.37	10,500.00	3,434.67	-278.15	3,437.14	0.00	0.00	0.00	0.00
13,800.00	90.00	355.37	10,500.00	3,534.35	-286.22	3,538.89	0.00	0.00	0.00	0.00
13,900.00	90.00	355.37	10,500.00	3,634.02	-294.29	3,636.63	0.00	0.00	0.00	0.00
14,000.00	90.00	355.37	10,500.00	3,733.69	-302.36	3,736.38	0.00	0.00	0.00	0.00
14,100.00	90.00	355.37	10,500.00	3,833.37	-310.44	3,836.12	0.00	0.00	0.00	0.00
14,200.00	90.00	355.37	10,500.00	3,933.04	-318.51	3,935.87	0.00	0.00	0.00	0.00
14,300.00	90.00	355.37	10,500.00	4,032.72	-326.58	4,035.62	0.00	0.00	0.00	0.00
14,400.00	90.00	355.37	10,500.00	4,132.39	-334.65	4,135.36	0.00	0.00	0.00	0.00
14,500.00	90.00	355.37	10,500.00	4,232.06	-342.72	4,235.11	0.00	0.00	0.00	0.00
14,600.00	90.00	355.37	10,500.00	4,331.74	-350.80	4,334.85	0.00	0.00	0.00	0.00
14,700.00	90.00	355.37	10,500.00	4,431.41	-358.87	4,434.60	0.00	0.00	0.00	0.00
14,800.00	90.00	355.37	10,500.00	4,531.08	-366.94	4,534.34	0.00	0.00	0.00	0.00
14,886.24	90.00	355.37	10,500.00	4,617.04	-373.90	4,620.36	0.00	0.00	0.00	0.00
TD @ 14886' MD - Nocaster 19 Federal 3H PBHL										

Plan Report for Nocaster 19 Federal 3H - Plan #1

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,927.04	9,927.04	0.00	0.00	Start Build @ 9927.04' MD
9,927.04	9,927.04	0.00	0.00	Build Rate = 10.00°/100'
10,827.04	10,500.00	571.09	-46.25	End Build @ 10827.04' MD
10,827.04	10,500.00	571.09	-46.25	Hold 90.00° Incl @ 355.37° Azim
14,886.24	10,500.00	4,617.04	-373.90	TD @ 14886' MD

Vertical Section Information

Angle Type	Target	Azimuth (°)	Origin Type	Origin		Start TVD (usft)
				+N/-S (usft)	+E/-W (usft)	
User	No Target (Freehand)	359.46	Slot	0.00	0.00	0.00

Survey tool program

From (usft)	To (usft)	Survey/Plan	Survey Tool
0.00	14,886.24	Plan #1	MWD+SC

Targets associated with this wellbore

Target Name	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Shape
Nocaster 19 Federal 3H PBHL	10,500.00	4,617.04	-373.90	Point

HALLIBURTON**North Reference Sheet for Nocaster 19 Federal - Nocaster 19 Federal 3H - Wellbore #1**

All data is in US Feet unless otherwise stated. Directions and Coordinates are relative to Grid North Reference.

Vertical Depths are relative to GE 3602.9' + KB 17' @ 3619.90usft (Patriot 4). Northing and Easting are relative to Nocaster 19 Federal 3H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone using datum North American Datum 1983, ellipsoid GRS 1980

Projection method is Transverse Mercator (Gauss-Kruger)

Central Meridian is -104.33°, Longitude Origin: 0° 0' 0.000 E°, Latitude Origin: 0° 0' 0.000 N°

False Easting: 541,337.50usft, False Northing: 0.00usft, Scale Reduction: 0.99998377

Grid Coordinates of Well: 467,949.37 usft N, 796,693.76 usft E

Geographical Coordinates of Well: 32° 17' 01.55" N, 103° 30' 25.30" W

Grid Convergence at Surface is: 0.44°

Based upon Minimum Curvature type calculations, at a Measured Depth of 14,886.24usft the Bottom Hole Displacement is 4,632.15usft in the Direction of 355.37° (Grid).

Magnetic Convergence at surface is: -6.89° (4 August 2014, , BGGM2014)

