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ATS-08-307

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MAY 14 2008

OCD-ARTESIA

OCD-ARTESIA

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Form 3160-3
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HIGH CAVEKARST

FORM APPROVED
OMB No 1004-0137
Expires March 31, 2007

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: ☑ DRILL ☐ REENTER	5 Lease Serial No. **SL: NM54856 BHL: NM103873**
	6 If Indian, Allotee or Tribe Name
	7 If Unit or CA Agreement, Name and No
1b. Type of Well ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone	8 Lease Name and Well No. **Shakespeare 20 Federal Com 1H**
2 Name of Operator **Devon Energy Production Company, LP** 6137	9 API Well No 30-015-36376 17970
3a. Address **20 North Broadway, Oklahoma City, Oklahoma City 73102-8260** / 3b. Phone No. *(include area code)* **405-552-8198**	10 Field and Pool, or Exploratory **Wolfcamp** Dog Canyon
4. Location of Well *(Report location clearly and in accordance with any State requirements *)* At surface **400 FSL & ~~330~~ 380 FEL, SE/SE** BH. At proposed prod zone **400 FSL & 330 FWL, SW/SW**	11 Sec, T R M or Blk and Survey or Area **Sec 20, T16S R28E**
14 Distance in miles and direction from nearest town or post office* **Approximately 13 miles east of Artesia, NM**	12 County or Parish **Eddy County** / 13 State **NM**

15 Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig unit line, if any) **Surf: 100' BHL: 330'**	16 No of acres in lease **SL: 320 BHL: 160**	17 Spacing Unit dedicated to this well **160 acres, S/2 S/2**
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. **Surf: 2640' BHL: 1320'**	19 Proposed Depth **TVD ~~6325'~~ 6511 TMD ~~10,870'~~ 10827**	20 BLM/BIA Bond No. on file **CO-1104**
21 Elevations (Show whether DF, KDB, RT, GL, etc.) **3525' GL**	22 Approximate date work will start* **03/01/2008**	23 Estimated duration **55 days**

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, shall be attached to this form

1 Well plat certified by a registered surveyor
2 A Drilling Plan
3 A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office)
4 Bond to cover the operations unless covered by an existing bond on file (see Item 20 above)
5 Operator certification
6 Such other site specific information and/or plans as may be required by the authorized officer

25 Signature	Name *(Printed/Typed)* **Norvella Adams**	Date **01/24/2008**
Title **Sr. Staff Eng. Tech**		
Approved by *(Signature)* **/s/ James Stovall**	Name *(Printed/Typed)* **/s/ James Stovall**	Date **MAY 13 2008**
Title **FIELD MANAGER**	Office **CARLSBAD FIELD OFFICE**	

Application approval 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.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

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)

SEE ATTACHED FOR CONDITIONS OF APPROVAL

ROSWELL CONTROLLED WATER BASIN

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

NOTE: New Pit Rule
NMAC 19-15-17

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
DISTRICT II
1301 W. Grand Avenue, 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 and Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised October 12, 2005

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	17970	Dog Canyon Wolfcamp

Property Code	Property Name	Well Number
37207	SHAKESPEARE "20" FEDERAL COMM	1H
OGRID No.	**Operator Name**	**Elevation**
6137	DEVON ENERGY PRODUCTION COMPANY LP	3526'

Surface Location

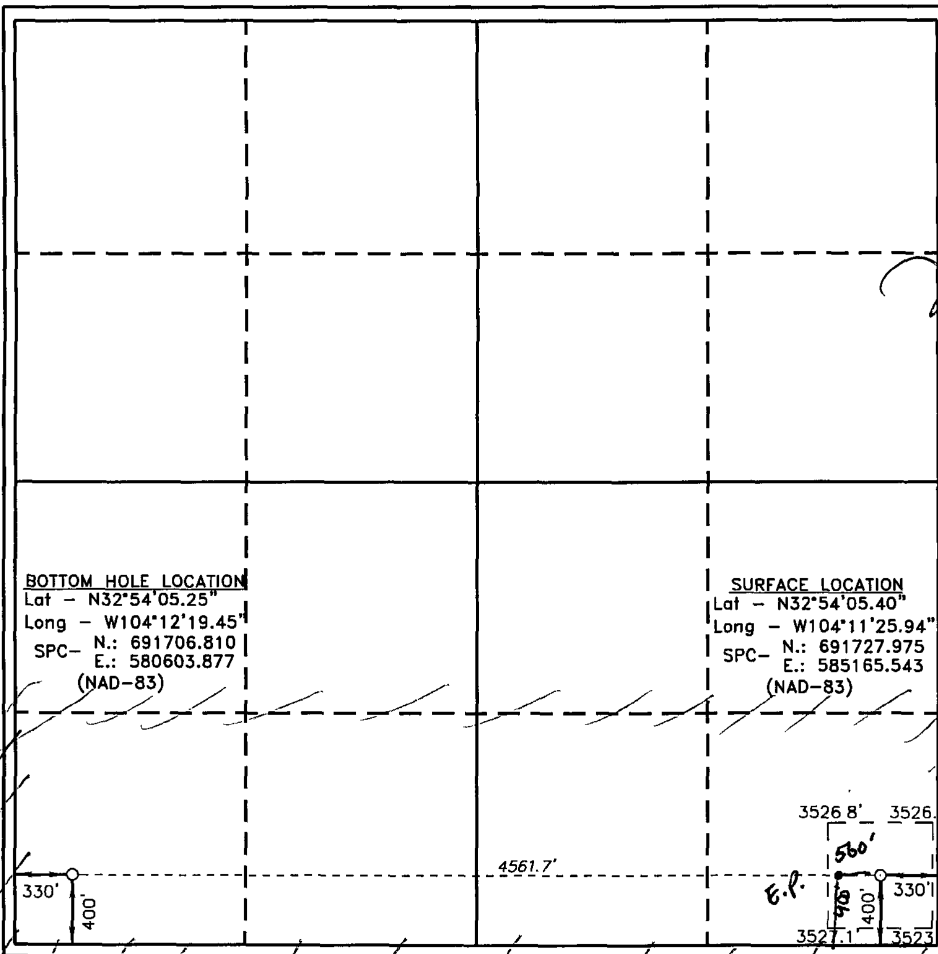
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	20	16 S	28 E		400	SOUTH	330	EAST	EDDY

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
M	20	16 S	28 E		400	SOUTH	330	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

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



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 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] 3/4/08
Signature Date

Norvella Adams
Printed Name

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 supervison, and that the same is true and correct to the best of my belief

FEBRUARY 19, 2008
Date Surveyed
Signature & Seal of Professional Surveyor

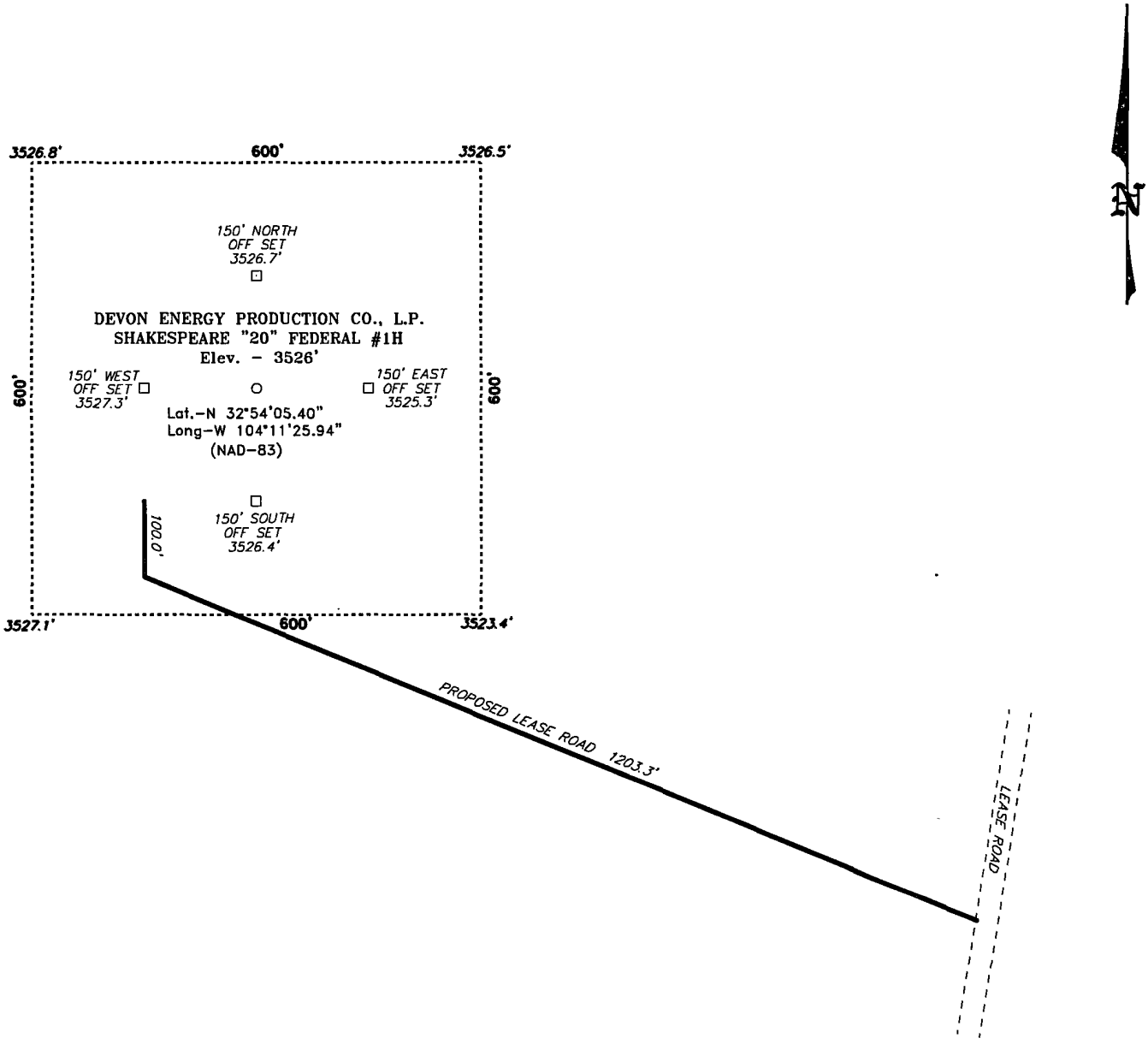
W.O. 193

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

E.P. 400' FSL
560' FEL

SECTION 20, TOWNSHIP 16 SOUTH, RANGE 28 EAST, N.M.P.M.,
EDDY COUNTY, **NEW MEXICO.**



Directions to Location:

FROM THE JUNCTION OF US HWY 82 AND SOUTHERN UNION, GO NORTH ON SOUTHERN UNION FOR 3.5 MILES TO LEASE ROAD, ON LEASE ROAD GO NORTH 2.0 MILES TO LEASE ROAD, GO WEST ON LEASE ROAD THENCE IMMEDIATELY NORTH FOR APPROX. 4 MILES TO LEASE ROAD, ON LEASE ROAD GO EAST 1.7 MILES TO LEASE ROAD, ON LEASE ROAD GO SOUTH TO PROPOSED LEASE ROAD.

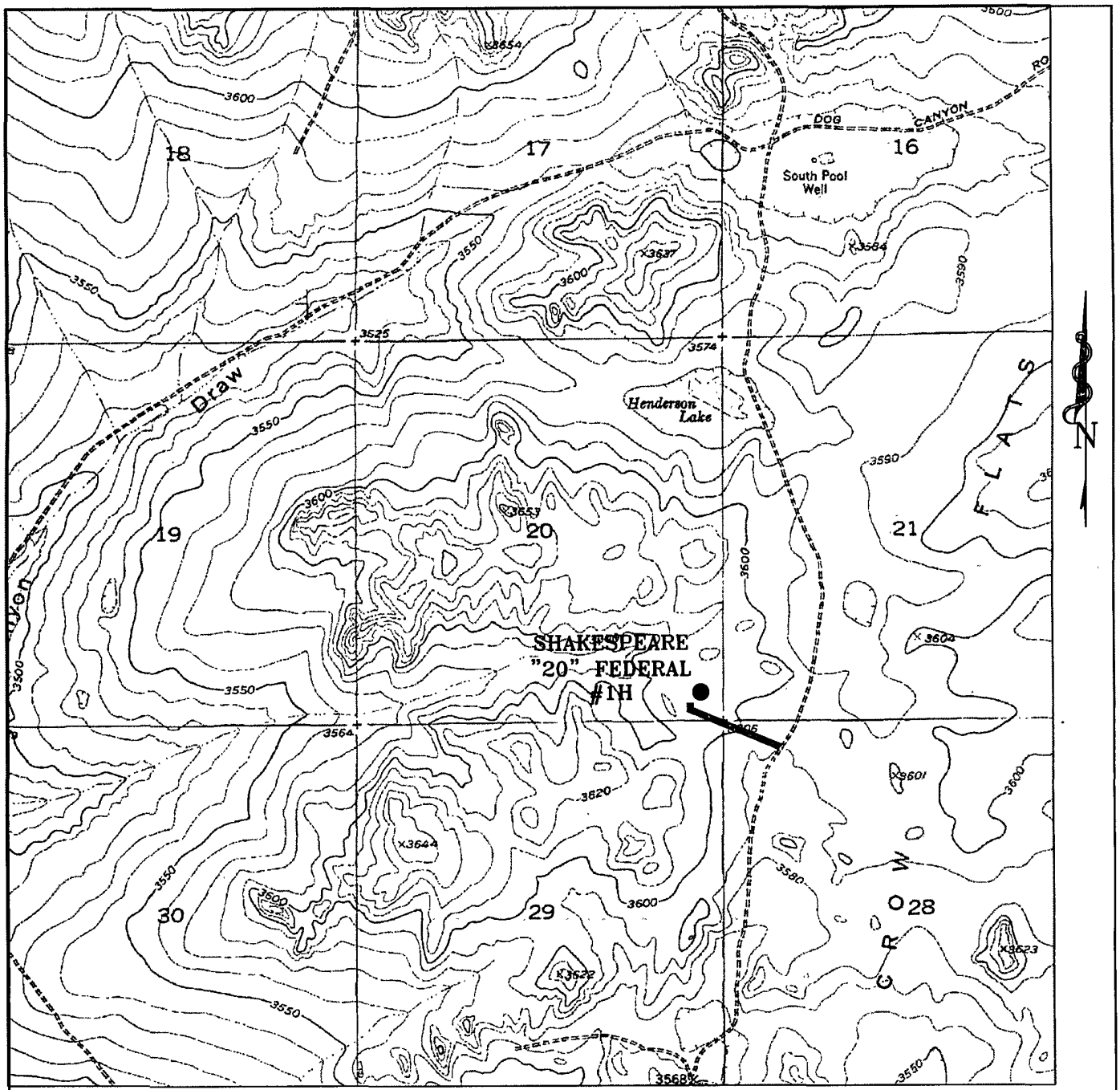
DEVON ENERGY PROD. CO., L.P.

REF: SHAKESPEARE "20" FEDERAL #1H / WELL PAD TOPO

THE SHAKESPEARE "20" FEDERAL #1H LOCATED 400' FROM THE SOUTH LINE AND 330' FROM THE EAST LINE OF SECTION 20, TOWNSHIP 16 SOUTH, RANGE 28 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 19414	Drawn By: J. M. SMALL		
Date: 04-01-2008	Disk: 19414W JMS	Survey Date: 03-23-2008	Sheet 1 of 1 Sheets



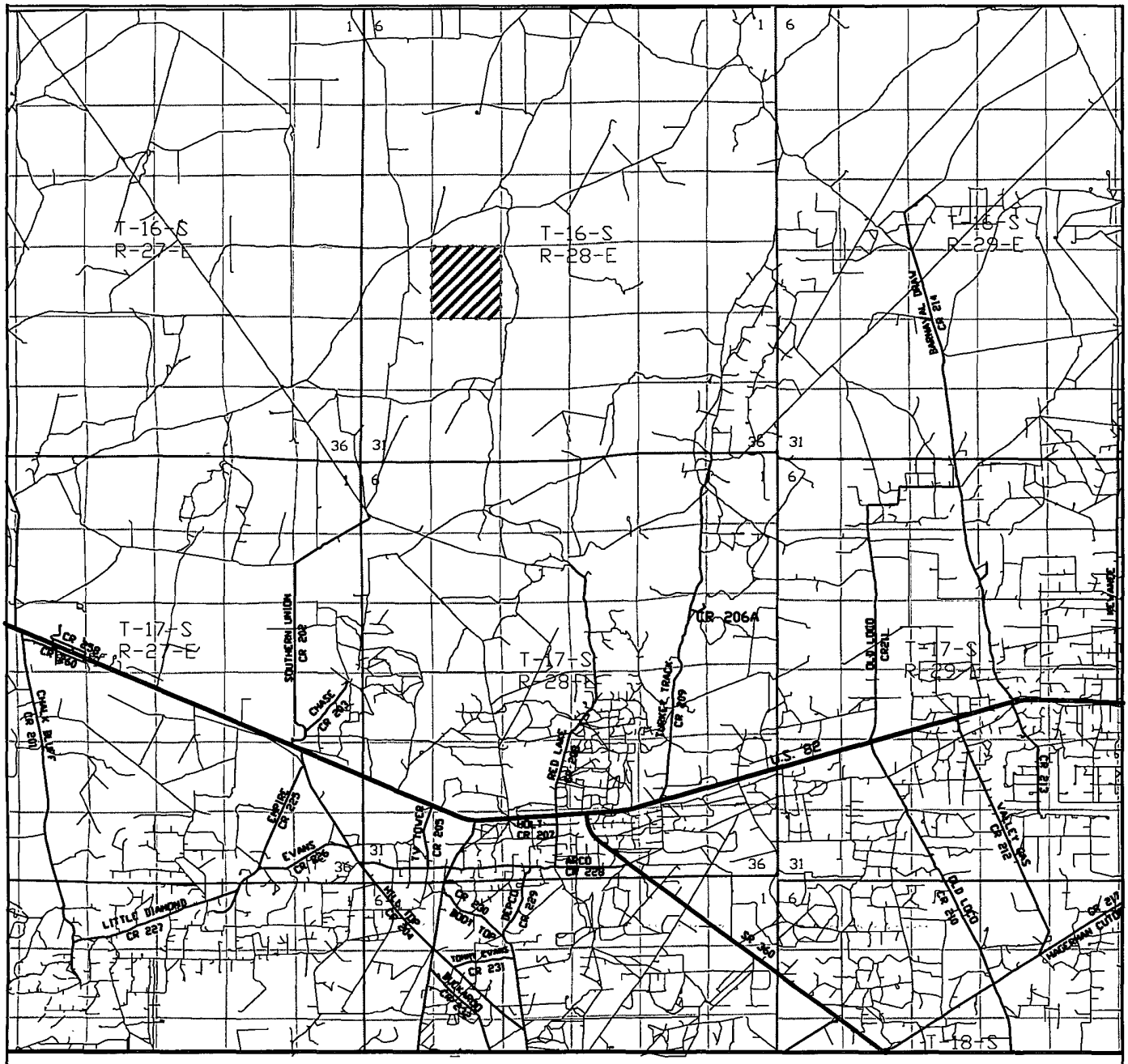
SHAKESPEARE "20" FEDERAL #1H
Located at 400' FSL AND 330' FEL
Section 20, Township 16 South, Range 28 East,
N.M.P.M., Eddy County, New Mexico.

basin surveys
focused on excellence in the oilfield

P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(505) 393-7316 - Office
(505) 392-3074 - Fax
basinsurveys.com

W.O. Number:	JMS 19414T
Survey Date:	03-23-2008
Scale:	1" = 2000'
Date:	04-01-2008

DEVON ENERGY PROD. CO., L.P.



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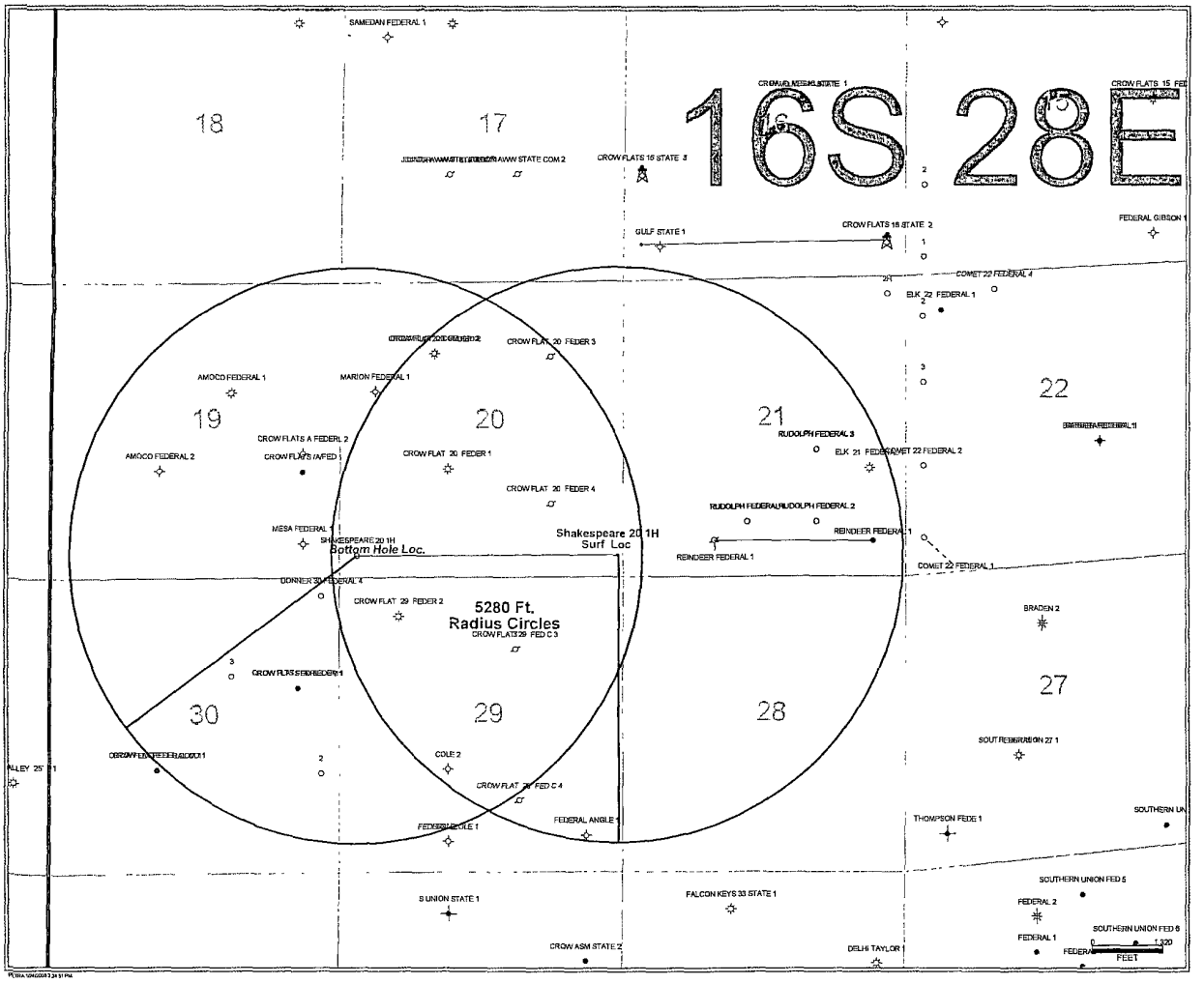
1120 N. West County Rd.
Hobbs, New Mexico 88241
(505) 393-7316 - Office
(505) 392-3074 - Fax
basinsurveys.com

W.O. Number:	JMS 19302TR
Survey Date:	02-19-2008
Scale:	1" = 2 MILES
Date:	02-26-2008

DEVON ENERGY PROD. CO., L.P.


16S 28E
18
17
16
15
19
20
21
22
30
29
28
27
SAMEDAN FEDERAL 1
CROW FLATS 16 STATE 3
GULF STATE 1
CROW FLATS 15 STATE 2
FEDERAL GIBSON 1
COMET 22 FEDERAL 4
ELK 22 FEDERAL 1
CROW FLAT 20 FEDER 3
AMOCO FEDERAL 1
MARION FEDERAL 1
CROW FLATS A FEDERL 2
AMOCO FEDERAL 2
CROW FLAT 20 FEDER 1
CROW FLAT 20 FEDER 4
RUDOLPH FEDERAL 3
ELK 21 FEDERAL 2
COMET 22 FEDERAL 2
MESA FEDERAL 1
SHAKESPEARE 20 1H
Bottom Hole Loc.
Shakespeare 20 1H
Surf Loc
RUDOLPH FEDERAL
RUDOLPH FEDERAL 2
REINDEER FEDERAL 1
REINDEER FEDERAL 1
COMET 22 FEDERAL 1
DONNER 30 FEDERAL 4
CROW FLAT 29 FEDER 2
5280 Ft.
Radius Circles
CROW FLAT 29 FED C 3
BRADEN 2
COLE 2
CROW FLAT 29 FED C 4
FEDERAL ANGLE 1
THOMPSON FEDE 1
SOUTHERN UNION FED 5
FEDERAL 2
SOUTHERN UNION FED 6
FEDERAL 1
S UNION STATE 1
FALCON KEYS 33 STATE 1
CROW ASM STATE 2
DELHI TAYLOR
0
1,320
FEET

DRILLING PROGRAM

Devon Energy Production Company, LP
Shakespeare 20 Federal Com 1H
Surface Location: 400' FSL & ~~100'~~ 330' FEL, Unit P, Sec 20 T16S R28E, Eddy, NM
Bottom Hole Location: 400' FSL & 330' FWL, Unit M, Sec 20 T16S R28E, Eddy, NM

1. **Geologic Name of Surface Formation**

   a. Quaternary

2. **Estimated Tops of Geological Markers & Depths of Anticipated Fresh Water, Oil or Gas:**

a.	Queen	1,061'	
b.	San Andres	1,866'	
c.	Glorieta	3,316'	
d.	Abo	5,331'	
e.	Wolfcamp	6,326'	Oil

No other formations are expected to yield oil, gas or fresh water in measurable volumes. The surface fresh water sands will be protected by setting 9 5/8" casing at 1900' and circulating cement back to surface. Potash / fresh water sands will be protected by setting 7" casing at 6450' and circulating cement to surface. The Wolfcamp intervals will be isolated by setting 4 1/2" liner to total measured depth.

Casing Program:

Hole Size	Hole Interval	OD Csg	Casing Interval	Weight	Collar	Grade
12 1/4"	0'–1900'	9 5/8"	0-1900'	36#	BT&C	K-55
~~8 1/5"~~ 8 1/2" per operator	1900'- 6,450'	7"	0'- 6450'	26#	P-110	BT&C

Pilot Hole:

8 ½" from 0' - +/- 5600' (at least 5600' but if PDC/PDM allows we will continue as far as we can with one run to no deeper than 7000). If we change bits after 5600' but before 7000', we will pick up a 7 7/8" bit to continue with the pilot hole.

Kick Off Point:

A 500' open hole cement kick off plug will be set from +/- 5600' to +/- 6100'. (Plug KOP is 5938' – log results pending).

The well will be directionally drilled in 8 1/2" hole to 7" casing point at +/- 6,550' (55 degrees at +/- 10/100) (expected to be in the Wolfcamp marker). The 7", 26#, P-110, BT&C casing will be set with

cement to circulate. The curve and lateral will be finished in a 6 1/8" open hole to a TD at 10,870' (6511' TVD).

See COA

The liner will be comprised of 4 ½" P-110, 11.6#, LT&C casing to be hung off +/- 225' inside the 7" at +/- 6,225'. The liner will consist of a 5 stage open hole isolation tool (Peak) and will not be cemented. It will be TD'd at ~~10,870'~~ (6511' TVD). The length of the liner will be +/- 4,645'. This liner will be run in a 6 1/8" hole. 10877' per plan

Design Parameter Factors:

Casing Size	Collapse Design Factor	Burst Design Factor	Tension Design Factor
9 5/8"	2.42	3.06	12.4
7"	2.11	4.05	6.06

3. Cement Program:

a. 9 5/8" Surface — Cement Lead with 445 sx 35:65 Poz: Premium Plus C Cement + 5% NaCl + .0125 lbs/sx Cello Flake + 3 #/sx LCM-1 + 4% Bentonite + 5% MPA-5 + 0.8% Sodium Metasilicate + 98.2% Fresh Water. Yield: 1.97 cf/sx. Tail with 250 sacks Premium Plus C Cement + 2% $CaCl_2$ + 56.4% Fresh Water. Yield: 1.34 cf/sx Displacement: 143.8 bbls Mud @ 10 ppg.

b. 7" Intermediate — Cement to surface with Lead: 625 sx 35:65 Poz: Premium Plus C Cement + 3% NaCl + 0.125 lbs/sx Celloflake + 6% Bentonite + 0.4% FL-52A + 105.4% Fresh Water. Yield: 1.34 cf/sx. Tail with 200 sx 60:40 Premium Plus C Cement + 4% MPA-5 + 1% NaCl + + 0.2% FL-52A + 0.75% BA-10A + 0.125 #/sx Cello Flake + 63.1% Fresh Water. Yield: 1.34 cf/sx Displacement: 247.6 bbls Mud @ 8.34 ppg.

c. KOP Plug — Plug 1: 310 sacks Class H Cement. Yield 1.18 cf/sx Spacer: 10.0 bbls Mud Clean II at 8.34 ppg. Plug 2: 225 sacks Class H Cement + 1.2% CD-31 + 0.2% R-3 + 26.3 Fresh Water. Yield 0.89 cf/sx.

The above cement volumes could be revised pending the caliper measurement from the open hole logs. The top of cement is designed to reach surface. All casing is new and API approved.

4. **Pressure Control Equipment:**

Prior to the intermediate, the blowout preventor equipment (BOP) will consist of a 5M system. A 5000 working pressure double and a 5000 annular preventor. **The equipment will be tested to 1000 psi with a rig pump.** The 9 5/8" casing will have a 5M double and a 5M annular preventor. The 9 5/8" casing and the 7" casing will have a 5M double, single and a 5M annular preventor. Full opening stabbing valve and upper Kelly cock will be utilized. Prior to drilling out the 7" casing shoe, the BOP's and Hydril will be tested as per BLM Drilling Operations Order #2.

See COA

Pipe rams will be operated and checked each 24-hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily driller's log. A 2" kill line and 3" choke line will be incorporated in the drilling spool below the ram-type BOP. Other accessory BOP equipment will include a Kelly cock, floor safety valve, choke lines and choke manifold.

5. **Proposed Mud Circulation System**

Depth	Mud Wt.	Visc	Fluid Loss	Type System
0' – 500'	8.5-8.9	32-34	N/C	Fresh Water
500'-1900'	10.0	28	N/C	Brine Water
1900'- 7000'	8.5-8.8	28	N/C	Cut Brine
5938' (KOP) – 6550'	8.5-8.7	29-30	N/C	Cut Brine
6550'- 10,780' MD (6,511' TVD)	8.7-8.9	29-34	N/C – 12cc	Cut Brine

The necessary mud products for weight addition and fluid loss control will be on location at all times.

6. **Auxiliary Well Control and Monitoring Equipment:**
   a. A Kelly cock will be in the drill string at all times.
   b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor at all times.
   c. Hydrogen Sulfide detection equipment will be in operation after drilling out the 9 5/8" casing shoe until the 7" casing is cemented. Breathing equipment will be on location upon drilling the 9 5/8" shoe until total depth is reached.

7. **Logging, Coring, and Testing Program:**
   a. Drill stem tests will be based on geological sample shows.
   b. If a drill stem test is anticipated; a procedure, equipment to be used and safety measures will be provided via sundry notice to the BLM.
   c. The open hole electrical logging program will be:
      i. Total Depth to Intermediate Casing — Dual Laterolog-Micro Laterolog with SP and Gamma Ray. Compensated Neutron – Z Density log with Gamma Ray and Caliper.
      ii. Total Depth to Surface — Compensated Neutron with Gamma Ray
      iii. No coring program is planned
      iv. Additional testing will be initiated subsequent to setting the 4 ½" liner. Specific intervals will be targeted based on log evaluation, geological sample shows and drill stem tests.

v.

8. Potential Hazards:

a. No abnormal pressures or temperatures are expected. There is no known presence of H2S in this area. If H2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6 No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 2800 psi and Estimated BHT 111°. No H2S is anticipated to be encountered.

9. Anticipated Starting Date and Duration of Operations:

a. Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operations and drilling is expected to take 30 days. If production casing is run then an additional 45 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

devon
ENERGY CORPORATION

DEVON ENERGY CORPORATION

Field: Eddy Co, NM
Site: Shakespeare 20 Federal COM 1H
Well: Shakespeare 20 Federal COM 1H
Wellpath: #20 Fed COM 1H
Plan: Plan #3

G
T M

Azimuths to Grid North
True North -0 08°
Magnetic North 8 24°

Magnetic Field
Strength 49343nT
Dip Angle 60 80°
Date 1/23/2008
Model igrf2005

SITE DETAILS

Shakespeare 20 Federal COM 1H
Eddy Co, NM

Site Centre Northing 691727.97
Easting 585165 54

Ground Level 3525 00
Positional Uncertainty 0.00
Convergence 0.08

FIELD DETAILS

Eddy Co, NM
USA

Geodetic System US State Plane Coordinate System 1983
Ellipsoid GRS 1980
Zone New Mexico, Eastern Zone
Magnetic Model igrf2005

System Datum Mean Sea Level
Local North Grid North

WELLPATH DETAILS

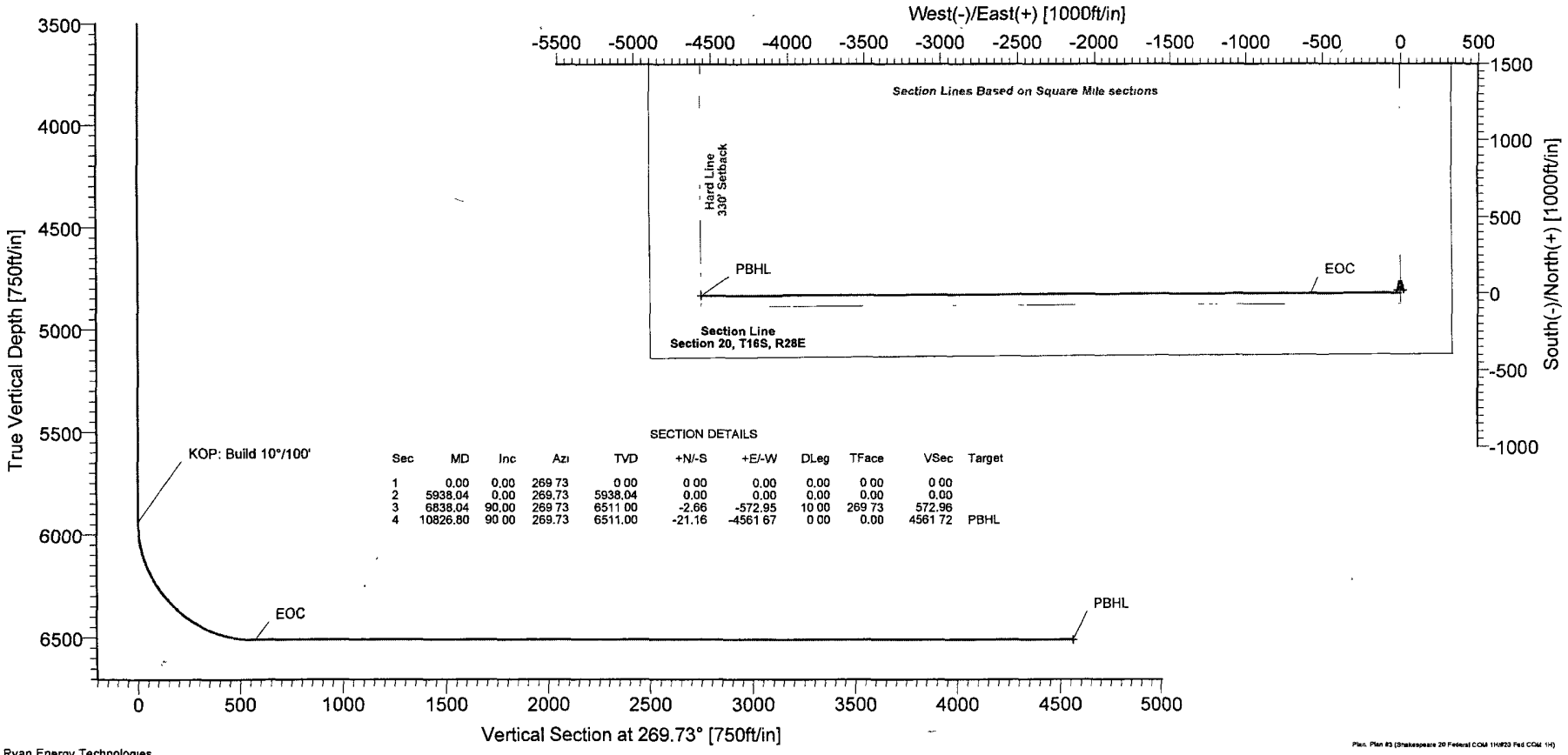
#20 Fed COM 1H

Rig
Ref. Datum SITE 0.00ft

V Section Angle	Origin +N/-S	Origin +E/-W	Starting From TVD
269.73°	0 00	0.00	0.00

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL	6511 00	-21.16	-4561 67	691706 81	580603 88	32°54'05 219N	104°12'19.437W	Point



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	269 73	0 00	0 00	0.00	0.00	0 00	0 00	
2	5938.04	0.00	269.73	5938.04	0.00	0.00	0.00	0.00	0.00	
3	6838.04	90.00	269 73	6511 00	-2.66	-572.95	10 00	269 73	572.96	
4	10826.80	90 00	269.73	6511.00	-21.16	-4561 67	0 00	0.00	4561 72	PBHL

Ryan Energy Technologies
19510 Oil Center Blvd
Houston, TX 77073
Ph 281-443-1414
Fx 281-443-1676

Ryan

Plan: Plan #3 (Shakespeare 20 Federal COM 1H/#20 Fed COM 1H)
Created By: Kevin Carr Date 4/7/2008
Checked ____ Date ____
Reviewed ____ Date ____
Approved ____ Date ____

Ryan Energy Technologies
Planning Report

Company:	DEVON ENERGY CORPORATION	**Date:**	4/7/2008	**Time:**	14:03:08	**Page:**	1
Field:	Eddy Co, NM	**Co-ordinate(NE) Reference:**	Site: Shakespeare 20 Federal COM 1H				
Site:	Shakespeare 20 Federal COM 1H	**Vertical (TVD) Reference:**	SITE 0.0				
Well:	Shakespeare 20 Federal COM 1H	**Section (VS) Reference:**	Well (0.00N,0.00E,269.73Azi)				
Wellpath:	#20 Fed COM 1H	**Plan:**	Plan #3				

Field:	Eddy Co, NM		
	USA		
Map System:	US State Plane Coordinate System 1983	**Map Zone:**	New Mexico, Eastern Zone
Geo Datum:	GRS 1980	**Coordinate System:**	Site Centre
Sys Datum:	Mean Sea Level	**Geomagnetic Model:**	igrf2005

Site:	Shakespeare 20 Federal COM 1H Eddy Co, NM								
Site Position:		**Northing:**	691727.97 ft	**Latitude:**	32	54	5.371	N	
From:	Map	**Easting:**	585165.54 ft	**Longitude:**	104	11	25.930	W	
Position Uncertainty:	0.00 ft			**North Reference:**			Grid		
Ground Level:	3525.00 ft			**Grid Convergence:**			0.08	deg	

Well:	Shakespeare 20 Federal COM 1H			**Slot Name:**					
Well Position:	+N/-S 0.00 ft	**Northing:**	691727.97 ft	**Latitude:**	32	54	5.371	N	
	+E/-W 0.00 ft	**Easting:**	585165.54 ft	**Longitude:**	104	11	25.930	W	
Position Uncertainty:	0.00 ft								

Wellpath:	#20 Fed COM 1H			**Drilled From:**	Surface
				Tie-on Depth:	0.00 ft
Current Datum:	SITE	**Height**	0.00 ft	**Above System Datum:**	Mean Sea Level
Magnetic Data:	1/23/2008			**Declination:**	8.32 deg
Field Strength:	49343 nT			**Mag Dip Angle:**	60.80 deg

Vertical Section:	**Depth From (TVD)** ft	**+N/-S** ft	**+E/-W** ft	**Direction** deg
	0.00	0.00	0.00	269.73

Plan:	Plan #3	**Date Composed:**	1/23/2008
		Version:	1
Principal:	Yes	**Tied-to:**	From Surface

Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	269.73	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5938.04	0.00	269 73	5938.04	0.00	0.00	0.00	0.00	0.00	0.00	
6838.04	90.00	269.73	6511.00	-2.66	-572.95	10.00	10.00	0.00	269.73	
10826.80	90.00	269.73	6511.00	-21.16	-4561 67	0.00	0.00	0.00	0.00	PBHL

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
5938.04	0.00	269.73	5938.04	0.00	0.00	0.00	0.00	0.00	0.00	KOP: Build 10°/100'
5950.00	1 20	269.73	5950.00	0.00	-0.12	0.12	10.00	10.00	0.00	
6000.00	6.20	269.73	5999 88	-0.02	-3.35	3.35	10.00	10.00	0.00	
6050.00	11.20	269.73	6049.29	-0.05	-10.90	10.90	10.00	10.00	0.00	
6100.00	16.20	269.73	6097.85	-0.11	-22.74	22.74	10.00	10.00	0.00	
6150.00	21.20	269.73	6145.20	-0.18	-38.76	38.76	10.00	10.00	0.00	
6200.00	26 20	269.73	6190.97	-0.27	-58.85	58.85	10.00	10.00	0.00	
6250.00	31.20	269.73	6234.81	-0.38	-82 85	82.85	10.00	10.00	0.00	
6300.00	36.20	269.73	6276.40	-0.51	-110.58	110.58	10.00	10.00	0.00	
6350.00	41.20	269.73	6315.41	-0.66	-141.83	141.83	10.00	10 00	0.00	
6400.00	46.20	269.73	6351.55	-0.82	-176.36	176.36	10.00	10.00	0.00	
6450.00	51.20	269.73	6384 54	-0.99	-213.91	213.91	10.00	10.00	0.00	
6500.00	56 20	269.73	6414.14	-1.18	-254.19	254.19	10.00	10.00	0.00	
6550 00	61.20	269.73	6440.11	-1.38	-296.89	296 90	10.00	10.00	0 00	
6600.00	66.20	269.73	6462.26	-1.59	-341.70	341.70	10.00	10.00	0.00	
6650.00	71.20	269.73	6480.42	-1.80	-388.27	388.27	10 00	10.00	0.00	
6700.00	76.20	269.73	6494.45	-2.02	-436.24	436.25	10.00	10.00	0.00	

Company:	DEVON ENERGY CORPORATION	**Date:**	4/7/2008	**Time:** 14:03:08	**Page:** 2
Field:	Eddy Co, NM	**Co-ordinate(NE) Reference:**	Site: Shakespeare 20 Federal COM 1H		
Site:	Shakespeare 20 Federal COM 1H	**Vertical (TVD) Reference:**	SITE 0.0		
Well:	Shakespeare 20 Federal COM 1H	**Section (VS) Reference:**	Well (0.00N,0.00E,269.73Azi)		
Wellpath:	#20 Fed COM 1H	**Plan:**	Plan #3		

Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
6750.00	81.20	269.73	6504.25	-2.25	-485.26	485.26	10.00	10.00	0.00	
6800.00	86.20	269.73	6509.74	-2.48	-534.94	534.94	10.00	10.00	0.00	
6838.04	90.00	269.73	6511.00	-2.66	-572.95	572.96	10.00	10.00	0.00	EOC
6900.00	90.00	269.73	6511.00	-2.95	-634.91	634.92	0.00	0.00	0.00	
7000.00	90.00	269.73	6511.00	-3.41	-734.91	734.92	0.00	0.00	0.00	
7100.00	90.00	269.73	6511.00	-3.87	-834.91	834.92	0.00	0.00	0.00	
7200.00	90.00	269.73	6511.00	-4.34	-934.91	934.92	0.00	0.00	0.00	
7300.00	90.00	269.73	6511.00	-4.80	-1034.90	1034.92	0.00	0.00	0.00	
7400.00	90.00	269.73	6511.00	-5.27	-1134.90	1134.92	0.00	0.00	0.00	
7500.00	90.00	269.73	6511.00	-5.73	-1234.90	1234.92	0.00	0.00	0.00	
7600.00	90.00	269.73	6511.00	-6.19	-1334.90	1334.92	0.00	0.00	0.00	
7700.00	90.00	269.73	6511 00	-6.66	-1434.90	1434.92	0.00	0.00	0.00	
7800.00	90.00	269.73	6511.00	-7.12	-1534.90	1534.92	0.00	0.00	0.00	
7900.00	90.00	269.73	6511.00	-7.59	-1634.90	1634.92	0.00	0.00	0.00	
8000.00	90.00	269.73	6511.00	-8.05	-1734.90	1734.92	0.00	0.00	0.00	
8100.00	90.00	269.73	6511.00	-8.51	-1834.90	1834.92	0.00	0.00	0.00	
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8300.00	90.00	269.73	6511.00	-9.44	-2034.89	2034.92	0.00	0.00	0.00	
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8600.00	90.00	269.73	6511.00	-10.83	-2334 89	2334.92	0.00	0.00	0 00	
8700.00	90.00	269.73	6511.00	-11.30	-2434.89	2434.92	0.00	0.00	0.00	
8800.00	90.00	269.73	6511.00	-11.76	-2534.89	2534.92	0.00	0.00	0.00	
8900.00	90.00	269.73	6511.00	-12 23	-2634.89	2634.92	0.00	0.00	0.00	
9000.00	90.00	269.73	6511.00	-12.69	-2734.89	2734.92	0.00	0.00	0.00	
9100.00	90 00	269.73	6511.00	-13.15	-2834.89	2834 92	0.00	0.00	0.00	
9200.00	90.00	269.73	6511.00	-13.62	-2934.88	2934.92	0.00	0.00	0.00	
9300.00	90.00	269.73	6511.00	-14.08	-3034.88	3034.92	0.00	0.00	0.00	
9400.00	90.00	269.73	6511.00	-14.55	-3134.88	3134.92	0.00	0.00	0.00	
9500.00	90.00	269.73	6511.00	-15.01	-3234.88	3234.92	0.00	0.00	0.00	
9600.00	90.00	269.73	6511.00	-15.47	-3334.88	3334.92	0.00	0.00	0.00	
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9800.00	90.00	269.73	6511.00	-16.40	-3534.88	3534.92	0.00	0.00	0.00	
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10000.00	90.00	269.73	6511.00	-17.33	-3734.88	3734.92	0.00	0.00	0.00	
10100.00	90.00	269.73	6511.00	-17.79	-3834.87	3834.92	0.00	0.00	0.00	
10200.00	90.00	269.73	6511.00	-18.26	-3934.87	3934.92	0.00	0.00	0.00	
10300.00	90.00	269.73	6511.00	-18.72	-4034.87	4034.92	0.00	0.00	0.00	
10400 00	90.00	269.73	6511.00	-19.18	-4134.87	4134.92	0.00	0 00	0.00	
10500 00	90.00	269.73	6511.00	-19.65	-4234.87	4234.92	0.00	0.00	0.00	
10600.00	90.00	269.73	6511.00	-20.11	-4334.87	4334.92	0.00	0.00	0.00	
10700.00	90 00	269.73	6511.00	-20.58	-4434.87	4434.92	0.00	0.00	0.00	
10800.00	90.00	269.73	6511.00	-21.04	-4534.87	4534.92	0.00	0.00	0.00	
10826.80	90.00	269.73	6511.00	-21.16	-4561.67	4561.72	0.00	0.00	0.00	PBHL

Targets

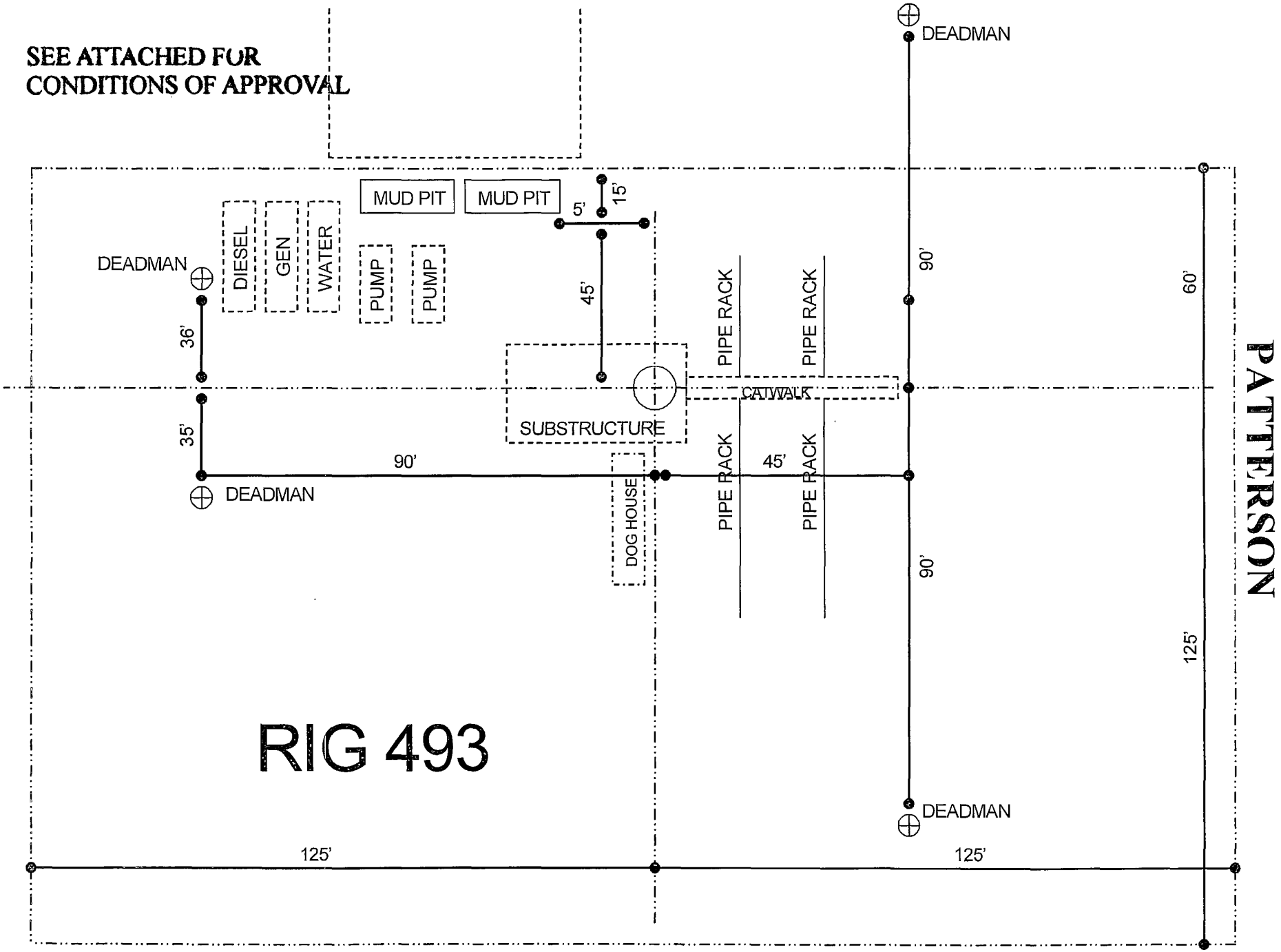
Name	Description Dip.	Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<---- Latitude ----> Deg	Min	Sec	<--- Longitude ---> Deg	Min	Sec
PBHL			6511.00	-21.16	-4561 67	691706.81	580603.88	32	54	5.219 N	104	12	19.437 W

Company:	DEVON ENERGY CORPORATION	**Date:**	4/7/2008	**Time:** 14:03:08	**Page:** 3
Field:	Eddy Co, NM	**Co-ordinate(NE) Reference:**	Site: Shakespeare 20 Federal COM 1H		
Site:	Shakespeare 20 Federal COM 1H	**Vertical (TVD) Reference:**	SITE 0.0		
Well:	Shakespeare 20 Federal COM 1H	**Section (VS) Reference:**	Well (0.00N,0.00E,269.73Azi)		
Wellpath:	#20 Fed COM 1H	**Plan:**	Plan #3		

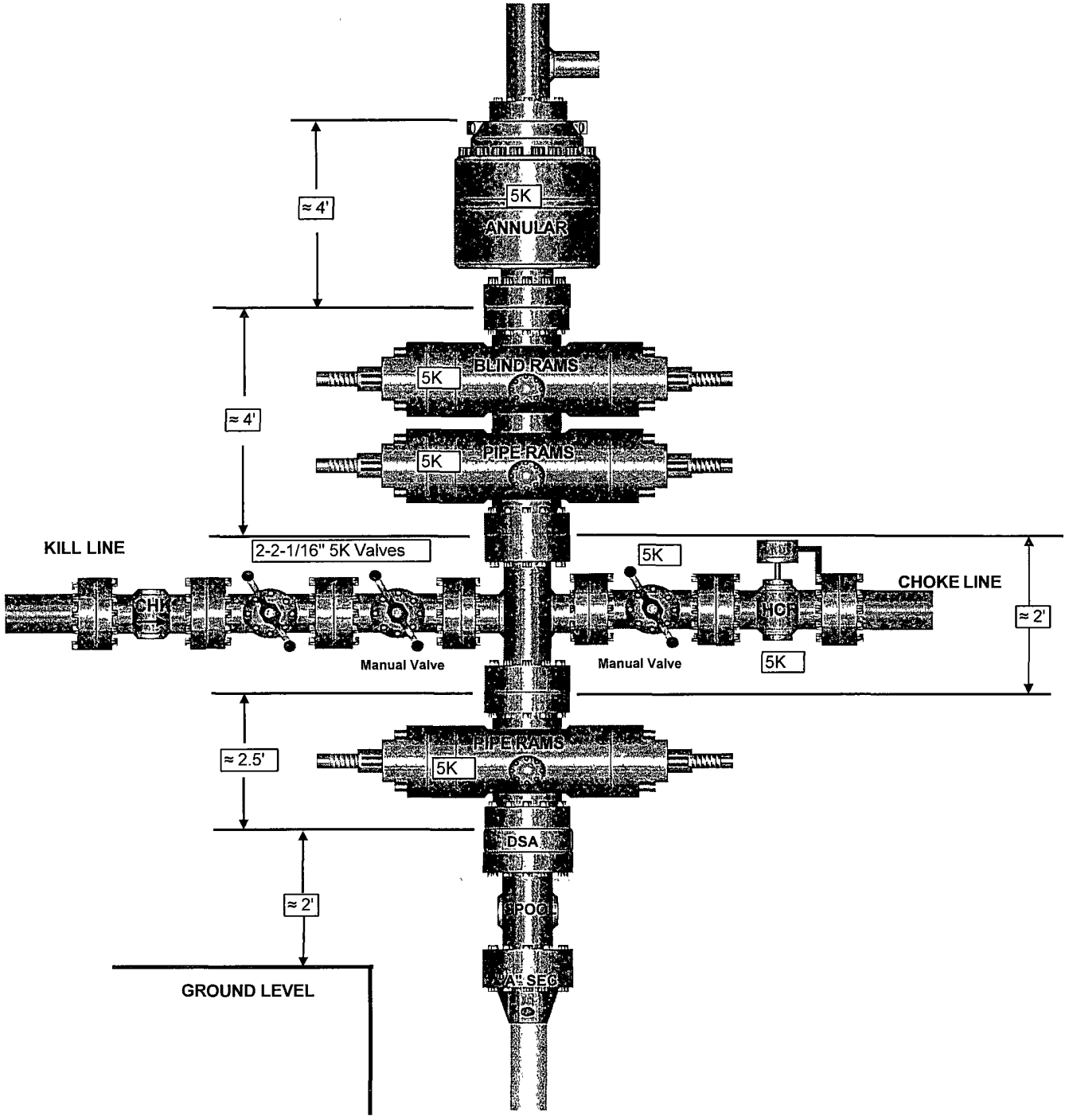
Annotation

MD ft	TVD ft	
5938.04	5938.04	KOP: Build 10°/100'
6838.04	6511.00	EOC

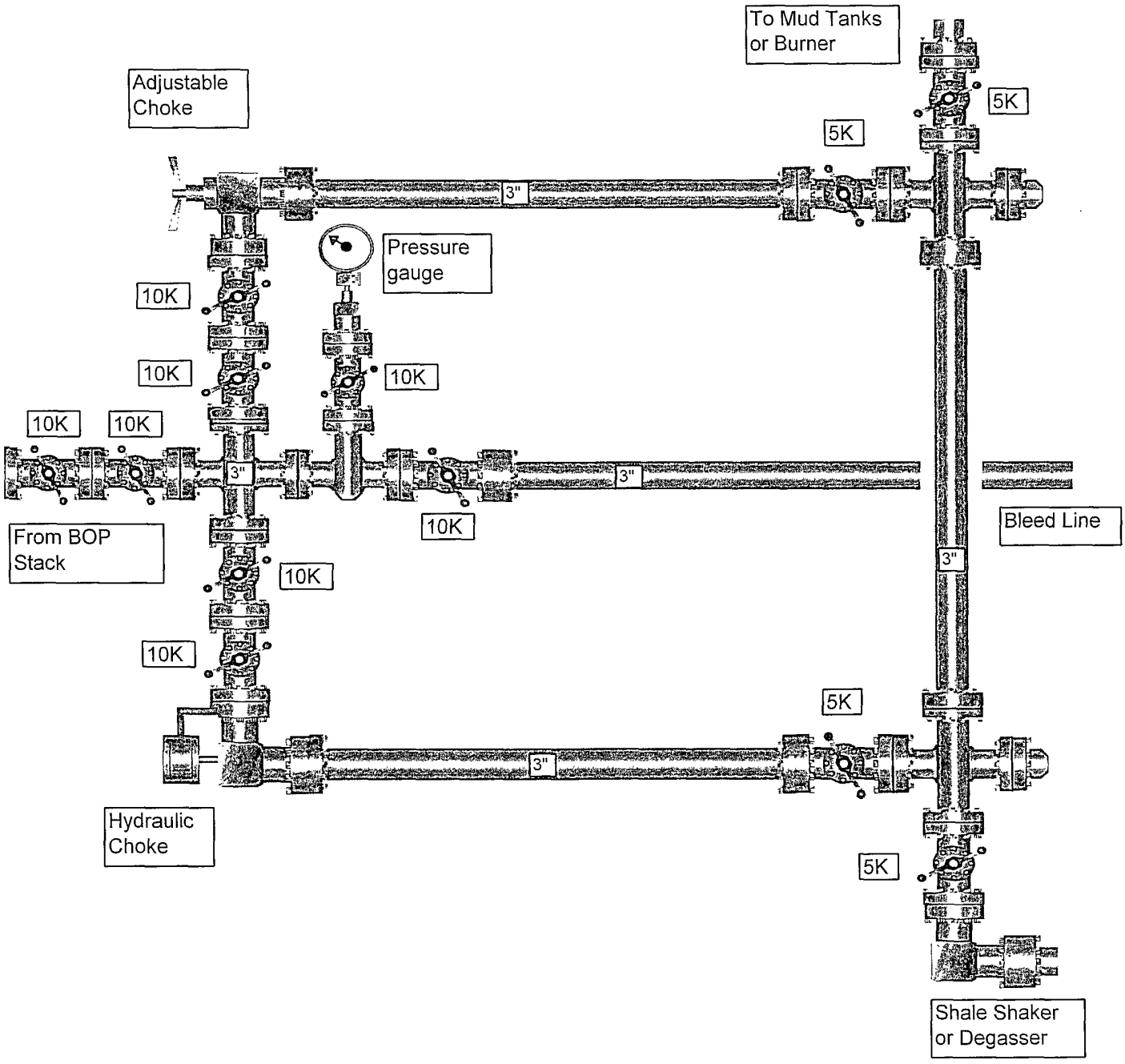
SEE ATTACHED FOR CONDITIONS OF APPROVAL



BOP STACK
SIZE: 13-5/8" x 5,000#



10,000 PSI CHOKE MANIFOLD



devon

bad copy

Devon Energy Corporation
20 North Broadway
Oklahoma City, Oklahoma 73102-8260

Hydrogen Sulfide (H_2S) Contingency Plan

For

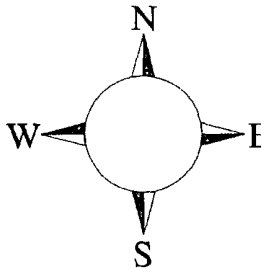
Shakespeare "20" Federal Com #1H

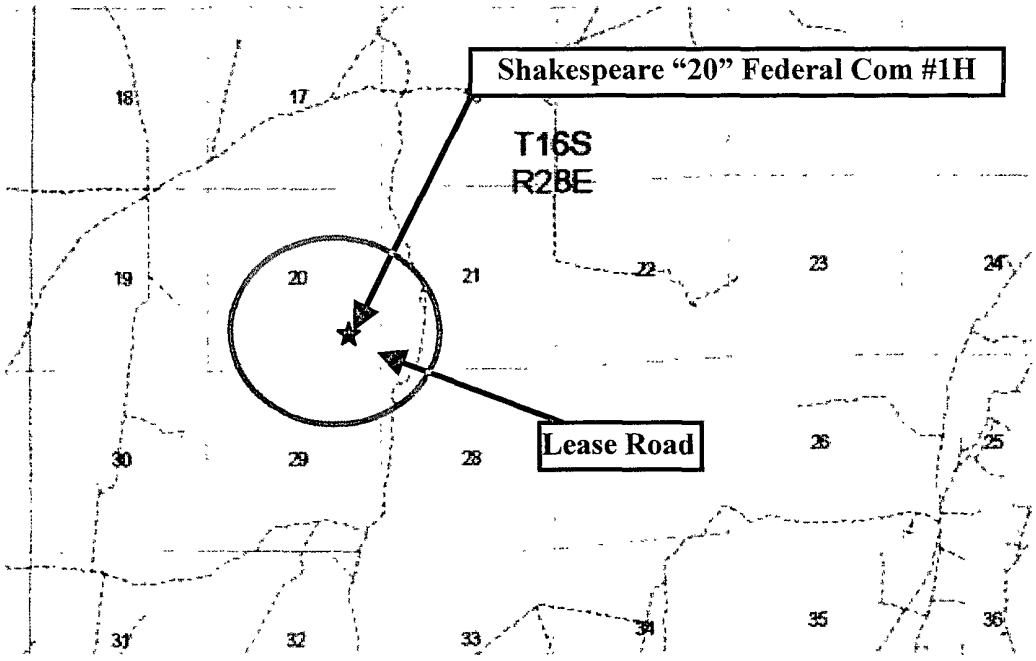
400' FSL & 330' FEL,
Sec-20, T-16S R-28E

Eddy County NM

Shakespeare "20" Federal Com #1H

This is an open drilling site. H_2S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H_2S, including warning signs, wind indicators and H_2S monitor.





Assumed 100 ppm ROE = 3000' (Radius of Exposure)
100 ppm H2S concentration shall trigger activation of this plan.

Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated East on the lease road. Crews should then block entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE There are no homes or buildings in or near the ROE.

Emergency Procedures

In the case of a release of gas containing H_2S, the first responder(s) must isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder(s) must evacuate any public places encompassed by the 100 ppm ROE. First responder(s) must take care not to injure themselves during this operation. Company and/or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE.

All responders must have training in the detection of H_2S, measures for protection against the gas, equipment used for protection and emergency response. Additionally, responders must be equipped with H_2S monitors and air packs in order to control the release. Use the "buddy system' to ensure no injuries during the response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO_2). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H_2S and SO_2

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentr-ation
Hydrogen Sulfide	H_2S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO_2	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

Devon Energy Corp. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Devon Energy Corp. Company response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

Devon Energy Corp. Company Call List

Artesia (505)	Cellular	Office	Home
Foreman – Robert Bell	748-7448	748-0178	746-2991
Asst. Foreman –Tommy Polly	748-5290	748-0165	748-2846
Joe Johnston	513-0630	748-0171	627-6917
Linda Berryman	513-0534	748-0177	628-1864
Engineer – Marcos Ortiz	(405) 317-0666	(405) 552-8152	(405) 381-4350

Agency Call List

Eddy County (505)

Artesia

State Police	746-2703
City Police	746-2703
Sheriff's Office	746-9888
Ambulance	911
Fire Department	746-2701
LEPC (Local Emergency Planning Committee)	746-2122
NMOCD	748-1283

Carlsbad

State Police	885-3137
City Police	885-2111
Sheriff's Office	887-7551
Ambulance	911
Fire Department	885-2111
LEPC (Local Emergency Planning Committee)	887-3798
US Bureau of Land Management	887-6544
New Mexico Emergency Response Commission (Santa Fe)	(505)476-9600
24 HR	(505) 827-9126
National Emergency Response Center (Washington, DC)	(800) 424-8802

Emergency Services

Boots & Coots IWC	1-800-256-9688 or (281) 931-8884
Cudd Pressure Control	(915) 699-0139 or (915) 563-3356
Halliburton	(505) 746-2757
B. J. Services	(505) 746-3569

Give GPS position:

Flight For Life - Lubbock, TX	(806) 743-9911
Aerocare - Lubbock, TX	(806) 747-8923
Med Flight Air Amb - Albuquerque, NM	(505) 842-4433
Lifeguard Air Med Svc. Albuquerque, NM	(505) 272-3115

Prepared in conjunction with
Wade Rohloff of;

Compliance Services
PO Box 2734 Hobbs NM 88240 (505) 631-9561

SURFACE USE PLAN
Devon Energy Production Company, LP
Shakespeare 20 Federal Com 1H
Surface Location: 400' FSL & 100' FEL, Unit P, Sec 20 T16S R28E, Eddy, NM
Bottom Hole Location: 400' FSL & 330' FWL, Unit M, Sec 20 T16S R28E, Eddy, NM

1. Existing Roads:

a. The well site and elevation plat for the proposed well are reflected on the well site layout; Form C-102. The well was staked by Basin Surveys.
b. All roads into the location are depicted on Exhibit 3.
c. Directions to Location: From the junction of US Hwy 82 and Brnaval Draw, go north 6.5 miles to "Y", go left for 2.1 miles to "Y", go left 5.8 miles then 1.2 miles south on lease road to proposed lease road.

2. New or Reconstructed Access Roads:

a. The well site layout, Form C-102 shows the existing County Road. The proposed access road comes in from the west to the south 1613.1 feet to proposed well pad. Attached is a plat of the proposed lease.
b. The maximum width of the road will be 15'. It will be crowned and made of 6" of rolled and compacted caliche. Water will be deflected, as necessary, to avoid accumulation and prevent surface erosion.
c. Surface material will be native caliche. This material will be obtained from a BLM approved pit nearest in proximity to the location. The average grade will be approximately 1%.
d. No cattle guards, grates or fence cuts will be required. No turnouts are planned.

3. Location of Existing Wells:

One Mile Radius Plat shows all existing and proposed wells within a one-mile radius of the proposed location. See attached plat.

4. Location of Existing and/or Proposed Production Facilities:

a. In the event the well is found productive, a new battery will be constructed on location and the necessary production equipment will be installed at the well site. See Production Facilities Layout diagram.
b. If necessary, the well will be operated by means of an electric prime mover. Electric power poles will be set along side of the access road.
c. All flow lines will adhere to API standards.
d. If the well is productive, rehabilitation plans are as follows:
    i. The reserve pit will be back-filled after the contents of the pit are dry (within 120 days after completion, weather permitting).
    ii. The original topsoil from the well site will be returned to the location. The drill site will then be contoured as close as possible to the original state.

5. Location and Types of Water Supply:

This location will be drilled using a combination of water mud systems (outlined in the Drilling Program). The water will be obtained from commercial water stations in the area and hauled to location by transport truck using the existing and proposed roads shown in the C-102. On occasion,

water will be obtained from a pre-existing water well, running a pump directly to the drill rig. In these cases where a poly pipeline is used to transport water for drilling purposes, proper authorizations will be secured. If a poly pipeline is used, the size, distance, and map showing route will be provided to the BLM via sundry notice.

6. **Construction Materials:**
All caliche utilized for the drilling pad and proposed access road will be obtained from an existing BLM approved pit or from prevailing deposits found under the location. All roads will be constructed of 6" rolled and compacted caliche. Will use BLM recommended use of extra caliche from other locations close by for roads, if available.

7. **Methods of Handling Waste Material:**
   a. Drill cuttings will be disposed of in the reserve pits.
   b. All trash, junk and other waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed all contents will be removed and disposed of in an approved sanitary landfill.
   c. The supplier, including broken sacks, will pick up salts remaining after completion of well.
   d. A Porto-john will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
   e. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken out for further drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a state approved disposal site. Later pits will be broken out to speed dry. Water produced during completion will be put in reserve pits. Oil and condensate produced will be put in a storage tank and sold.
   f. Disposal of fluids to be transported by the following companies:
      i. American Production Service Inc, Odessa TX
      ii. Gandy Corporation, Lovington NM
      iii. I & W Inc, Loco Hill NM
      iv. Jims Water Service of Co Inc, Denver CO

8. **Ancillary Facilities:** No campsite or other facilities will be constructed as a result of this well.

9. **Well Site Layout**
   a. Exhibit D shows the proposed well site layout with dimensions of the pad layout.
   b. This exhibit indicated proposed location of reserve and sump pits and living facilities.
   c. Mud pits in the active circulating system will be steel pits & the reserve pit will be lined.
   d. If needed, the reserve pit is to be lined with polyethylene. The pit liner will be 6 mils thick. Pit liner will extend a minimum 2'00" over the reserve pits dikes where the liner will be anchored down.
   e. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased to preclude endangering wildlife.

10. Plans for Surface Reclamation:

a. After concluding the drilling and/or completion operations, if the well is found non-commercial; the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations. The road will be reclaimed as directed by the BLM. The reserve pit area will be broken out and leveled after drying to a condition where these efforts are feasible. The original top soil will again be returned to the pad and contoured, as close as possible, to the original topography. We will close the pits per OCD compliance regulations. We will use a closed loop system.

b. The pit lining will be buried or hauled away in order to return the location and road to their Pristine nature. All pits will be filled and location leveled, weather permitting, within 120 days after abandonment. We will use a closed loop system.

c. The location and road will be rehabilitated as recommended by the BLM.

d. If the well is a producer, the reserve pit fence will be torn down after the pit contents have dried. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements. We will use a closed loop system.

e. If the well is deemed commercially productive, the reserve pit will be restored as described in 10(A) within 120 days subsequent to the completion date. Caliche from areas of the pad site not required for operations will be reclaimed. The original top soil will be returned to the area of the drill pad not necessary to operate the well. These unused areas of the drill pad will be contoured, as close as possible, to match the original topography.

11. Surface Ownership (Use the appropriate A-C option; delete other two)

a. The surface is owned by the US Government and is administered by the Bureau of Land Management. The surface is multiple use with the primary uses of the region for the grazing of livestock and the production of oil and gas.

b. The proposed road routes and the surface location will be restored as directed by the BLM.

12. Other Information:

a. The area surrounding the well site is grassland. The topsoil is very sandy in nature. The vegetation is moderately sparse with native prairie grass, sagebrush, yucca and miscellaneous weeds. No wildlife was observed but it is likely that deer, rabbits, coyotes, and rodents traverse the area.

b. There is no permanent or live water in the general proximity of the location.

c. There are no dwellings within 2 miles of location.

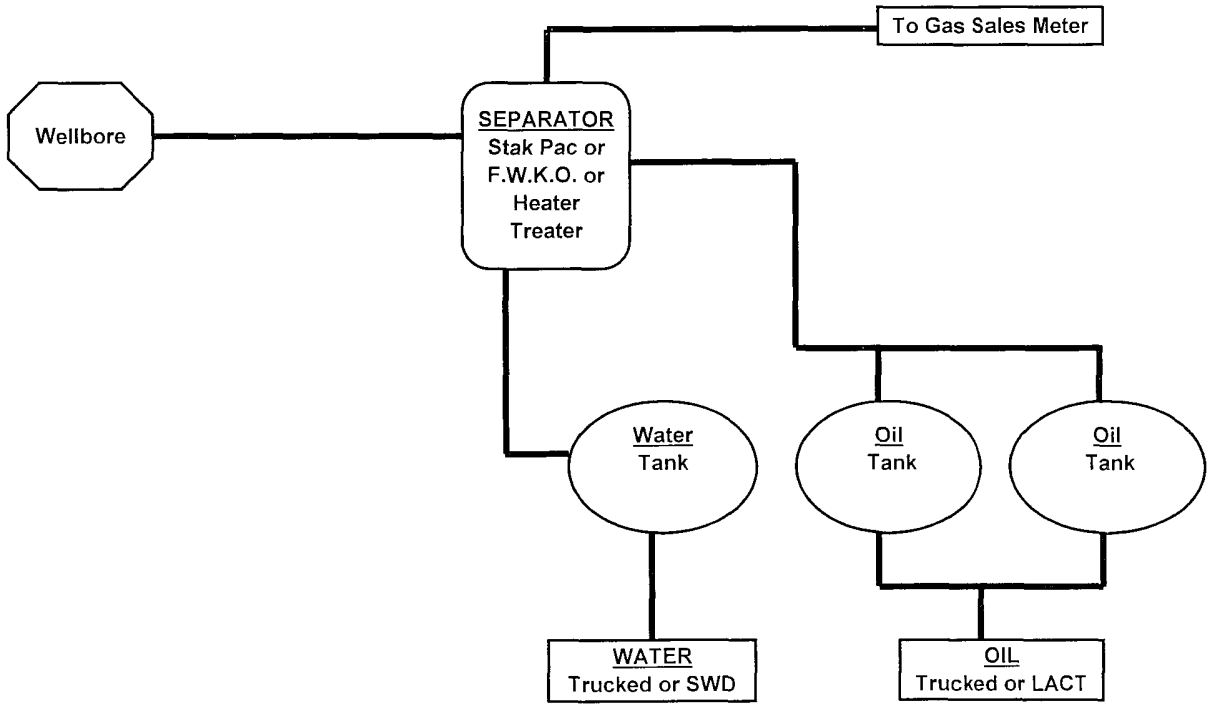
d. A Cultural Resources Examination will be completed by Southern New Mexico Archaeological Services, Inc. and forwarded to the BLM office in Carlsbad, New Mexico.

13. Bond Coverage:

Bond Coverage is Nationwide; Bond # is CO-1104

DEVON ENERGY PRODUCTION COMPANY LP

General Production Facilities Diagram



Operators Representative:

The Devon Energy Production Company, L.P. representatives responsible for ensuring compliance of the surface use plan are listed below.

Marcos Ortiz
Operations Engineer

Devon Energy Production Company, L.P.
20 North Broadway, Suite 1500
Oklahoma City, OK 73102-8260

(405) 552-8152 (office)
(405) 317-0666 (cellular)

Joe Johnston
Superintendent

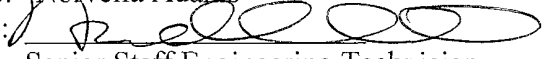
Devon Energy Production Company, L.P.
Post Office Box 250
Artesia, NM 88211-0250

(505) 748-0171 (office)
(505) 513-0630 (cellular)

Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access road proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or Devon Energy Production Company, L.P. am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

I hereby also certify that I, or Devon Energy Production Company, L.P. have made a good faith effort to provide the surface owner with a copy of the Surface Use Plan of Operations and any Conditions of Approval that are attached to the APD.

Executed this _24th___ day of __January__, 2008.
Printed Name: Norvella Adams
Signed Name: 
Position Title: Senior Staff Engineering Technician
Address: 20 North Broadway, OKC OK 73102
Telephone: (405)-552-8198
Field Representative (if not above signatory): Robert Bell
Address (if different from above): Artesia, NM
Telephone (if different from above): 505-748-0178
E-mail: norvella.adams@dvn.com

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Devon Energy Production
LEASE NO.:	NM-103873
WELL NAME & NO.:	1H-Shakespeare 20 Federal Com
SURFACE HOLE FOOTAGE:	400' FSL & 330' FEL
BOTTOM HOLE FOOTAGE	400' FSL & 330' FWL
LOCATION:	Section 20, T. 16 S., R 28 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

EXHIBIT NO. 1

Date of Issue: 4/9/2008

Bureau of Land Management, Carlsbad Field Office
620 E. Greene Street Carlsbad, NM 88220

Cultural and Archaeological Resources

NOTICE OF STIPULATIONS

BLM Report No. 08-NM-523-520

Historic properties in the vicinity of this project are protected by federal law. In order to ensure that they are not damaged or destroyed by construction activities, the project proponent and construction supervisors shall ensure that the following stipulations are implemented.

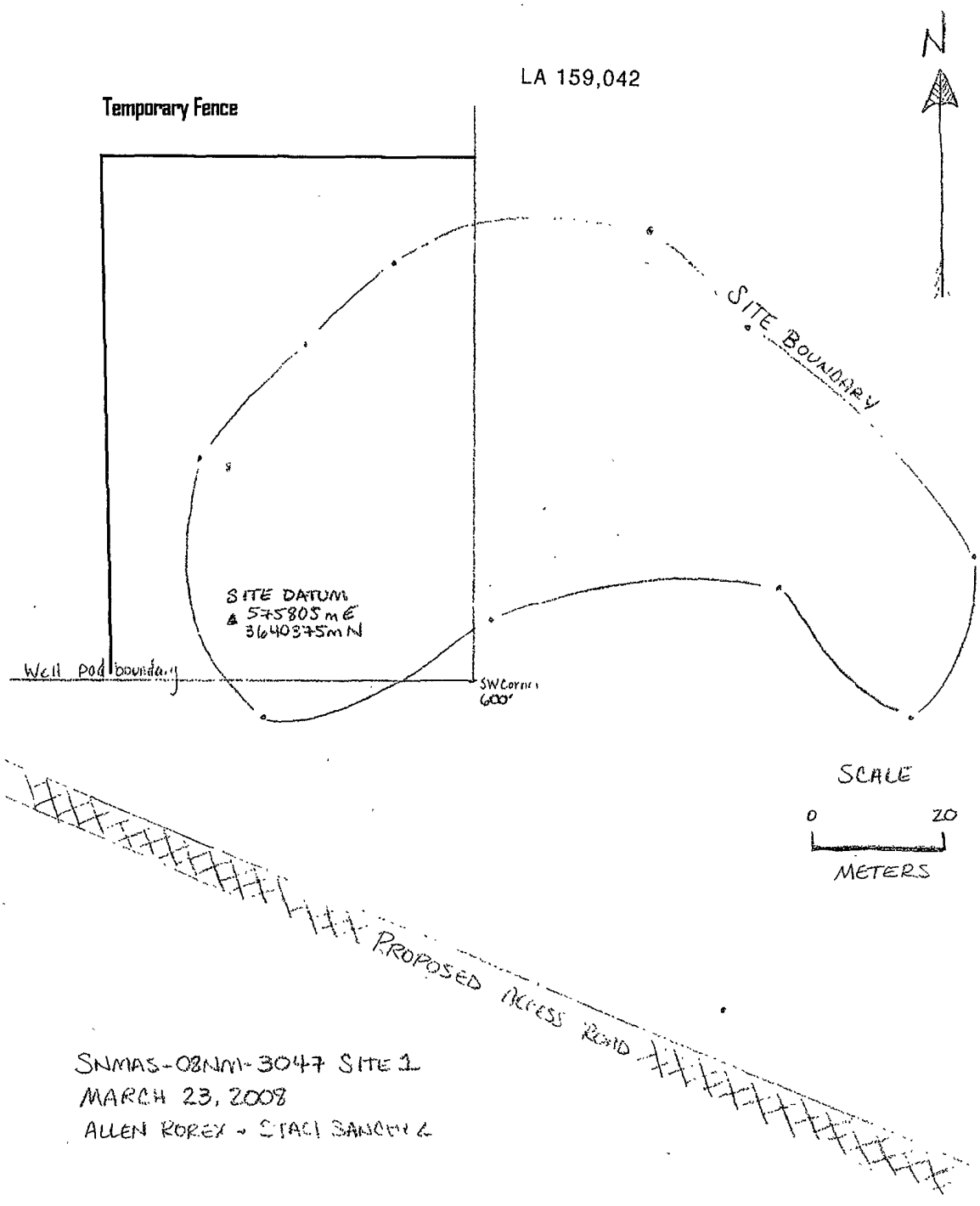
Project Name:	Shakespeare "20" Fed Com #1H Well and Access Road
REQUIRED	***1). A 3-day preconstruction call-in notification.*** Contact BLM Inspection and Enforcement at (505) 234-5977, 5909, or 5995, to establish a construction start date.
REQUIRED	***2. Professional archaeological monitoring***. Contact your project archaeologist, or BLM's Cultural Resources Section at (505) 234-5980, 5917, or 5986, for assistance.
A. ☒	These stipulations must be given to your monitor at least **5 days** prior to the start of construction.
B. ☐	No construction, including vegetation removal or other site prep may begin prior to the arrival of the monitor.
REQUIRED	***3. Cultural site barrier fencing.*** (Your monitor will assist you).
A. ☒	A temporary site protection barrier(s) shall be erected prior to all ground-disturbing activities. The minimum barrier(s) shall consist of upright wooden survey lath spaced no more than ten (10) feet apart and marked with blue ribbon flagging or blue paint. There shall be no construction activities or vehicular traffic past the barrier(s) at any time.
B. ☐	A permanent, 4-strand barbed wire fence strung on standard "T-posts" shall be erected prior to all ground-disturbing activities. No construction activities or vehicle traffic are allowed past the fence.
	4. The archaeological monitor shall:
A. ☒	Ensure that all site protection barriers are located as indicated on the attached map(s).
B. ☒	Observe all ground-disturbing activities within 100 feet of cultural site no. (s) LA159042 , as shown on the attached map(s).
C. ☐	Ensure that all reroutes are adhered to avoid cultural site no.(s) LA
D. ☐	Ensure the proposed is/are located as shown on the attached map(s).
E. ☒	Submit a brief monitoring report within 30 days of completion of monitoring.
	Monitor construction of the southeast quarter of the well pad.
Other:	

Site Protection and Employee Education: It is the responsibility of the project proponent and his construction supervisor to inform all employees and subcontractors that cultural and archaeological sites

are to be avoided by all personnel, vehicles, and equipment; and that it is illegal to collect, damage, or disturb cultural resources on Public Lands.

For assistance, contact BLM Cultural Resources:	Martin Stein (575) 234-5980 George MacDonell (575) 234-2228	Bruce Boeke (575) 234-5917	James Smith (575) 234-5986

Exhibit 2 – Map of Temporary Fence



SNMAS-08NM-3047 SITE 1
MARCH 23, 2008
ALLEN ROREX - STACI SANCHEZ

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (505) 234-5972 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall stockpile the topsoil of the well pad. The topsoil to be stripped is approximately 6 inches in depth. The topsoil shall not be used to backfill the reserve pit and will be used for interim and final reclamation.

C. RESERVE PITS

The reserve pit shall be constructed and closed in accordance with the NMOCD rules.

The reserve pit shall be constructed 150' X 150' on the North side of the well pad.

The reserve pit shall be constructed, so that upon completion of drilling operations, the dried pit contents shall be buried a minimum depth of three feet below ground level. Should the pit content level not meet the three foot minimum depth requirement, the excess contents shall be removed until the required minimum depth of three feet below ground level has been met. The operator shall properly dispose of the excess contents at an authorized disposal site.

The reserve pit shall be constructed and maintained so that runoff water from outside the location is not allowed to enter the pit. The berms surrounding the entire perimeter of the pit shall extend a minimum of two (2) feet above ground level. At no time will standing fluids in the pit be allowed to rise above ground level.

The reserve pit shall be fenced on three (3) sides during drilling operations. The fourth side shall be fenced immediately upon rig release.

D. FEDERAL MINERAL MATERIALS PIT

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. Call the Carlsbad Field Office at (505) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. ON LEASE ACCESS ROADS

Road Width
The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing
Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

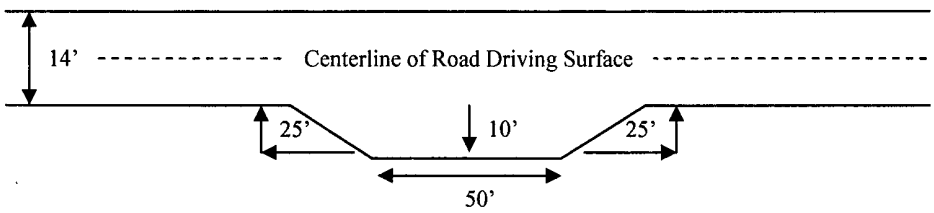
Ditching

Ditching shall be required on both sides of the road.

Turnouts

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

Standard Turnout – Plan View

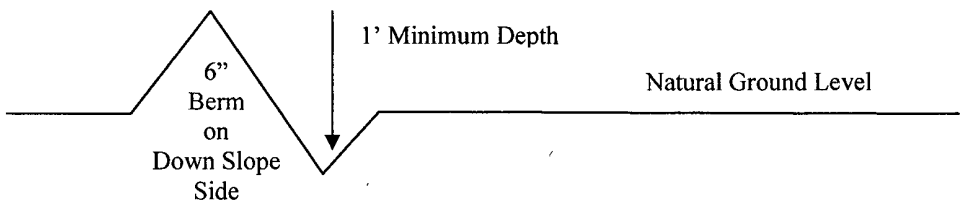


Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$\text{400 foot road with 4\% road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Culvert Installations
Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards
An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

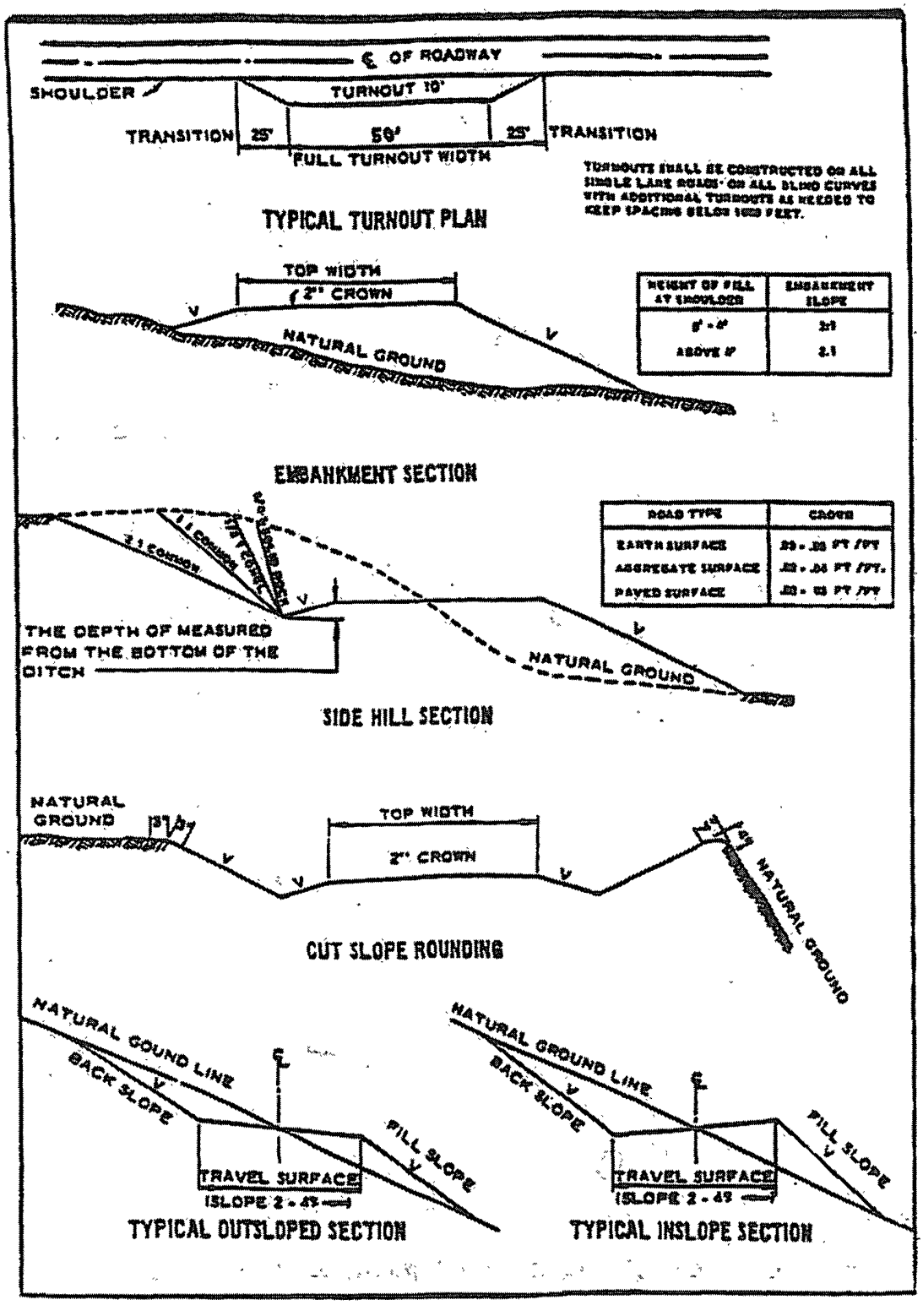
A gate shall be constructed and fastened securely to H-braces.

Fence Requirement
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access
Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

a. Spudding well
b. Setting and/or Cementing of all casing strings
c. BOPE tests

☒ **Chaves and Roosevelt Counties, T16S Eddy County**
Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.
(575) 627-0205 and (575) 361-2822.

1. **Although there are no measured amounts of Hydrogen Sulfide reported, it is always a potential hazard. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.**

2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

High cave/karst.
Possible lost circulation in the Grayburg and San Andres formations.
Possible high pressure gas bursts in the Wolfcamp.

1. The **9-5/8** inch surface casing shall be set at **approximately 1900** feet and cemented to the surface.

Onshore Order II requires casing to be set across a competent bed, which may be difficult to find in the Seven Rivers.

Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing.

a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.

b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement).

c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **7** inch intermediate casing is:

☒ Cement to surface. If cement does not circulate see B.1.a-d above.

Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing.

3. The minimum required fill of cement behind the **4-1/2** inch production casing is:

☒ Cement not required – operator using Peak System Iso-pack liner.

Seal on Peak Systems Iso-Pack liner is to be tested per Onshore Oil and Gas Order 2.III.B.1.b. Report test results for liner on subsequent report.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. The tests shall be done by an independent service company.

    b. The results of the test shall be reported to the appropriate BLM office.

    c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

    d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

    e. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation **if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days**. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

    f. **No variance granted on BOP/BOPE test.**

D. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

E. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

WWI 050708

VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities
Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures
The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement
All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color
Shale Green, Munsell Soil Color Chart # 5Y 4/2

IX. INTERIM RECLAMATION & RESERVE PIT CLOSURE

A. INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting interim reclamation.

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

At the time reserve pits are to be reclaimed, operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

B. RESERVE PIT CLOSURE

The reserve pit, when dried and closed, shall be recontoured, all trash removed, and reseeded as follows:

Seed Mixture 4, for Gypsum Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

Species	lb/acre
Alkali Sacaton (Sporobolus airoides)	1.0
DWS⊆ Four-wing saltbush (Atriplex canescens)	5.0

⊆DWS: DeWinged Seed

*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed

(Insert Seed Mixture Here)

X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.

On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the private surface land owner agreement.