

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

JAN 6 2009

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

APPLICATION FOR PERMIT TO DRILL OR REENTER

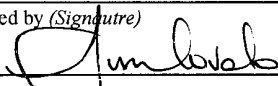
1a. Type of Work ☒ DRILL ☐ REENTER Farmington Field Office		5. Lease Serial No. Jicarilla Contract 97
1b. Type of Well ☐ Oil Well ☒ Gas Well ☐ Other ☐ Single Zone ☐ Multiple Zone		6. If Indian, Allottee or Tribe Name Jicarilla Apache
2. Name of Operator Energizer Resources Corporation		7. Unit or CA Agreement Name and No.
3a. Address 2010 Afton Place Farmington, New Mexico 87401		8. Lease Name and Well No. Jicarilla 97 #6N
3b. Phone No. (include area code) (505) 325-6800		9. API Well No. 30-039-30655
4. Location of Well (Report location clearly and in accordance with any State requirements)* At surface 1907' FSL and 1850' FWL At proposed prod. zone F 2400' ENL and 1730' FWL		10. Field and Pool, or Exploratory Blanco Mesa Verde / Dakota Basin
14. Distance in miles and direction from nearest town or post office* 3 miles NE		11. Sec., T., R., M., or Blk. and Survey or Area K Sec 7 T 26N R 3W
15. Distance from proposed* location to nearest property or lease line, ft. 1850' (Also to nearest drg. unit line, if any)	16. No. of Acres in lease 2560.00 305.3	17. Spacing Unit dedicated to this well 320.00 w/2
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 950'	19. Proposed Depth 8232' 8704' TVD	20. BLM/BIA Bond No. on file RCVD MAR 29 '11 OIL CONS. DIV. DIST. 3
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 6890' GL	22. Approximate date work will start* 3/15/09	23. Estimated duration 21 Days

24. Attachments

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

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

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

25. Signature 	Name (Printed/Typed) Devin Mills	Date 1/15/09
Title Drilling Engineer		
Approved by (Signature) 	Name (Printed/Typed)	Date 3/23/11
Title Acting AFM Minerals		

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.

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

(Continued on page 2)

Hold C104

*(Instructions on page 2)

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

for Directional Survey
and "As Drilled" plat

NMOCD

APR 06 2011

DRILLING OPERATIONS AUTHORIZED ARE
SUBJECT TO COMPLIANCE WITH ATTACHED
"GENERAL REQUIREMENTS".BLM'S APPROVAL OR ACCEPTANCE OF THIS
ACTION DOES NOT RELIEVE THE LESSEE AND
OPERATOR FROM OBTAINING ANY OTHER
AUTHORIZATION REQUIRED FOR OPERATIONS
ON FEDERAL AND INDIAN LANDS

onsite OK
12/3/08

DISTRICT I
1625 W. French Dr., Hobbs, N.M. 88240

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000

DISTRICT II
911 South First, Artesia, N.M. 88210

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

DISTRICT III
1060 Rio Brazos Rd., Aztec, N.M. 87410

OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-039-30055		*Pool Code 71599/72319	*Pool Name BASIN BLANCO MESA VERDE/GALLUP-DAKOTA
*Property Code 21939	*Property Name JICARILLA 97		*Well Number 6N
*GRID No. 162928	*Operator Name ENERGEN RESOURCES CORPORATION		*Elevation 6890'

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
K	7	26N	3W		1907'	SOUTH	1850'	WEST	RIO ARriba

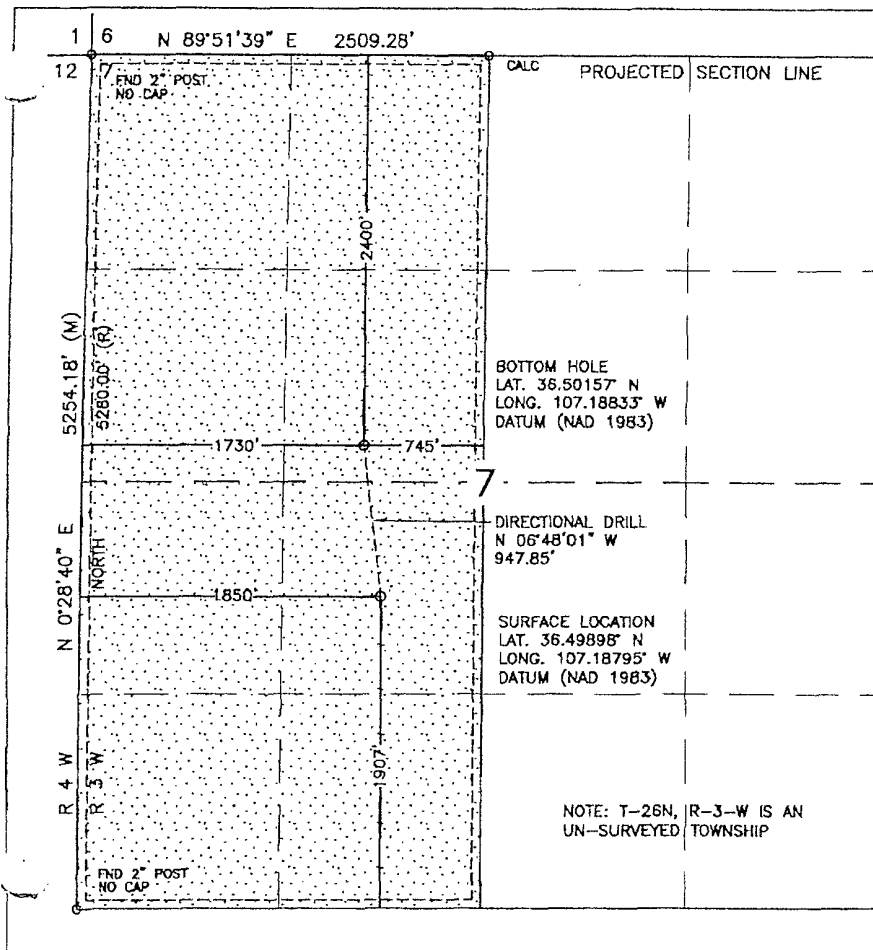
¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	7	26N	3W		2400'	NORTH	1730'	WEST	RIO ARriba

*Dedicated Acres 305.30 320.00 Acres - (W/2)	*Joint or Infill	*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

16



17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief.

Signature
DREW MILES
Printed Name
DREW MILES
Title
1/15/09
Date

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.

SEPTEMBER 15, 2008

Date of Survey

Signature and Seal of Professional Surveyor:

David R. Russell

DAVID RUSSELL

Certificate Number

10201

Operations Plan

January 12, 2009

Jicarilla 97 #6N

General Information

Location	1907' fsl, 1850' fwl nesw S7, T26N, R03W Rio Arriba County, New Mexico
Elevations	6890' GL
Total Depth	8470' (MD)
Formation Objective	Mesa Verde/Dakota

Formation Tops

San Jose	Surface	Int Csg Point	3982'
Nacimiento	2042'	Huerfano Bentonite	4112'
Ojo Alamo Ss	3122'	Cliff House	5307'
Kirtland Sh	3332'	Menefee	5417'
Fruitland Fm	3452'	Point Lookout Ss.	5777'
Top Coal	3562'	Mancos Shale	6037'
Bottom Coal	3627'	Greenhorn Ls.	7717'
Pictured Cliffs	3632'	Dakota "Main body"	8057'
Lewis Shale	3812'	Total Depth	8232' Tvd

Drilling

The 12 1/4" wellbore will be drilled with a fresh water mud system.

The 8 3/4" wellbore will be drilled with a low solids non-dispersed fresh water mud system. Weighting materials will be drill cuttings and/or Barite as needed. Mud density is expected to range from 8.3 ppg to 8.9 ppg. Kickoff point will be 2000' with a build of 4.51°/100' and a drop of 4.51°/100'.

The 6 1/4" wellbore will be drilled with air/mist from intermediate setting depth to TD.

Blowout Control Specifications:

A 2000 psi minimum double ram or annulus BOP stack (figure 1) will be used following nipple up of casing head. During air drilling operations, a Shaffer Type 50 or equivalent rotating head will be installed on top of the stack. A 2" nominal, 2000 psi minimum choke manifold will also be used. An upper Kelly Cock valve handle and drill string valve should be available to fit each drill string and be available on the rig floor during drilling operations.

Logging Program:

Open hole logs: From Surface to Intermediate setting depth - None

From Intermediate setting depth to TD - Temp / HRI / CNT, LDT / GR

Mud Logs: None

Coring: None

Surveys: Surface to KOP every 500', every 250' from KOP to TD.

Tubulars

Casing, Tubing, & Casing Equipment:

String	Interval Tvd	Wellbore	Casing	Csg Wt	Grade
Surface	0'-200'	12 1/4"	9 5/8"	32.3 ppf	H-40 ST&C
Intermediate	200'-4273'	8 3/4"	7"	23.0 ppf	J-55 LT&C
Production	4073'-8523'	6 1/4"	4 1/2"	11.6 ppf	J-55 LT&C
Tubing	0'-8000'		2 3/8"	4.7 ppf	J-55

Energen APD REPORT

Company:	Energen Resources	Local Co-ordinate Reference:	Well 97 #6N
Project:	Jicarilla	TVD Reference:	WELL @ 6905.0ft (Original Well Elev)
Site:	97; Sec. 7 T 26N R 3W	MD Reference:	WELL @ 6905.0ft (Original Well Elev)
Well:	97 #6N	North Reference:	True
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #1	Database:	EDM 2003.21 Single User Db

Project	Jicarilla		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Central Zone		

Site		97; Sec. 7 T 26N R 3W			
Site Position:		Northing:	2,002,243.69ft	Latitude:	36° 29' 56.328 N
From:	Lat/Long	Easting:	1,364,742.09ft	Longitude:	107° 11' 16.620 W
Position Uncertainty:	0.0 ft	Slot Radius:	"	Grid Convergence:	-0.56 °

Well	97 #6N					
Well Position	+N/-S	0.0 ft	Northing:	2,002,243.69 ft	Latitude:	36° 29' 56.328 N
	+E/-W	0.0 ft	Easting:	1,364,742.09 ft	Longitude:	107° 11' 16.620 W
Position Uncertainty		0.0 ft	Wellhead Elevation:	ft	Ground Level:	6,890.0ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	1/15/2009	9.90	63.43	50,936

Design	Design #1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0.0	0.0	0.0	353.24

Survey Tool Program		Date	1/16/2009		
From	To	Survey (Wellbore)	Tool Name	Description	
(ft)	(ft)				
0.0	8,522.6	Design #1 (Wellbore #1)	MWD	MWD - Standard	

Planned Survey							
MD (ft)	TVD (ft)	Inc (°)	Azi (azimuth) (°)	Build (°/100ft)	V. Sec (ft)	Northing (ft)	Easting (ft)
0.0	0.0	0.00	0.00	0.00	0.0	2,002,243.69	1,364,742.09
100.0	100.0	0.00	0.00	0.00	0.0	2,002,243.69	1,364,742.09
200.0	200.0	0.00	0.00	0.00	0.0	2,002,243.69	1,364,742.09
300.0	300.0	0.00	0.00	0.00	0.0	2,002,243.69	1,364,742.09
400.0	400.0	0.00	0.00	0.00	0.0	2,002,243.69	1,364,742.09
500.0	500.0	0.00	0.00	0.00	0.0	2,002,243.69	1,364,742.09
600.0	600.0	0.00	0.00	0.00	0.0	2,002,243.69	1,364,742.09
700.0	700.0	0.00	0.00	0.00	0.0	2,002,243.69	1,364,742.09
800.0	800.0	0.00	0.00	0.00	0.0	2,002,243.69	1,364,742.09
900.0	900.0	0.00	0.00	0.00	0.0	2,002,243.69	1,364,742.09
1,000.0	1,000.0	0.00	0.00	0.00	0.0	2,002,243.69	1,364,742.09
1,100.0	1,100.0	0.00	0.00	0.00	0.0	2,002,243.69	1,364,742.09

Energen APD REPORT

Company: Energen Resources Project: Jicarilla Site: 97; Sec. 7 T. 26N R. 3W Well: 97 #6N Wellbore: Wellbore #1 Design: Design #1	Local Co-ordinate Reference: Well 97 #6N TVD Reference: WELL @ 6905.0ft (Original Well Elev) MD Reference: WELL @ 6905.0ft (Original Well Elev) North Reference: True Survey Calculation Method: Minimum Curvature Database: EDM 2003.21 Single User Db	
---	--	--

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (azimuth) (°)	Build (°/100ft)	V. Sec (ft)	Northing (ft)	Easting (ft)
1,200.0	1,200.0	0.00	0.00	0.00	0.0	2,002,243.69	1,364,742.09
1,300.0	1,300.0	0.00	0.00	0.00	0.0	2,002,243.69	1,364,742.09
1,400.0	1,400.0	0.00	0.00	0.00	0.0	2,002,243.69	1,364,742.09
1,500.0	1,500.0	0.00	0.00	0.00	0.0	2,002,243.69	1,364,742.09
1,600.0	1,600.0	0.00	0.00	0.00	0.0	2,002,243.69	1,364,742.09
1,700.0	1,700.0	0.00	0.00	0.00	0.0	2,002,243.69	1,364,742.09
1,800.0	1,800.0	0.00	0.00	0.00	0.0	2,002,243.69	1,364,742.09
1,900.0	1,900.0	0.00	0.00	0.00	0.0	2,002,243.69	1,364,742.09
2,000.0	2,000.0	0.00	0.00	0.00	0.0	2,002,243.69	1,364,742.09
2,100.0	2,099.9	4.51	353.24	4.51	3.9	2,002,247.59	1,364,741.66
2,200.0	2,199.2	9.01	353.24	4.51	15.7	2,002,259.29	1,364,740.39
2,300.0	2,297.2	13.52	353.24	4.51	35.2	2,002,278.70	1,364,738.29
2,400.0	2,393.4	18.02	353.24	4.51	62.4	2,002,305.72	1,364,735.35
2,500.0	2,487.2	22.53	353.24	4.51	97.0	2,002,340.16	1,364,731.61
2,600.0	2,578.0	27.03	353.24	4.51	138.9	2,002,381.82	1,364,727.09
2,700.0	2,665.2	31.54	353.24	4.51	187.8	2,002,430.43	1,364,721.81
2,800.0	2,748.3	36.04	353.24	4.51	243.4	2,002,485.71	1,364,715.81
2,900.0	2,826.7	40.55	353.24	4.51	305.4	2,002,547.31	1,364,709.12
3,000.0	2,900.1	45.06	353.24	4.51	373.3	2,002,614.84	1,364,701.79
3,100.0	2,967.9	49.56	353.24	4.51	446.8	2,002,687.89	1,364,693.85
3,136.3	2,991.0	51.20	353.24	4.51	474.8	2,002,715.67	1,364,690.84
3,200.0	3,032.2	48.32	353.24	-4.51	523.4	2,002,764.02	1,364,685.59
3,300.0	3,101.5	43.82	353.24	-4.51	595.4	2,002,835.61	1,364,677.81
3,400.0	3,176.3	39.31	353.24	-4.51	661.7	2,002,901.55	1,364,670.65
3,500.0	3,256.1	34.81	353.24	-4.51	722.0	2,002,961.45	1,364,664.15
3,600.0	3,340.4	30.30	353.24	-4.51	775.8	2,003,014.93	1,364,658.34
3,700.0	3,428.6	25.80	353.24	-4.51	822.8	2,003,061.67	1,364,653.27
3,800.0	3,520.2	21.29	353.24	-4.51	862.7	2,003,101.37	1,364,648.95
3,900.0	3,614.8	16.79	353.24	-4.51	895.3	2,003,133.79	1,364,645.43
4,000.0	3,711.5	12.28	353.24	-4.51	920.4	2,003,158.73	1,364,642.73
4,100.0	3,810.0	7.77	353.24	-4.51	937.8	2,003,176.04	1,364,640.85
4,200.0	3,909.5	3.27	353.24	-4.51	947.4	2,003,185.60	1,364,639.81
4,272.6	3,982.0	0.00	0.00	-4.51	949.5	2,003,187.66	1,364,639.59
4,300.0	4,009.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
4,400.0	4,109.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
4,500.0	4,209.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
4,600.0	4,309.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
4,700.0	4,409.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
4,800.0	4,509.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
4,900.0	4,609.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
5,000.0	4,709.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
5,100.0	4,809.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
5,200.0	4,909.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
5,300.0	5,009.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59

Energen APD REPORT

Company: Energen Resources
Project: Jicarilla
Site: 97; Sec. 7 T 26N R 3W
Well: 97 #6N
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well 97 #6N
TVD Reference: WELL @ 6905.0ft (Original Well Elev)
MD Reference: WELL @ 6905.0ft (Original Well Elev)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.21 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (azimuth) (°)	Build (°/100ft)	V. Sec (ft)	Northing (ft)	Easting (ft)
5,400.0	5,109.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
5,500.0	5,209.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
5,600.0	5,309.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
5,700.0	5,409.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
5,800.0	5,509.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
5,900.0	5,609.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
6,000.0	5,709.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
6,100.0	5,809.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
6,200.0	5,909.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
6,300.0	6,009.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
6,400.0	6,109.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
6,500.0	6,209.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
6,600.0	6,309.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
6,700.0	6,409.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
6,800.0	6,509.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
6,900.0	6,609.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
7,000.0	6,709.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
7,100.0	6,809.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
7,200.0	6,909.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
7,300.0	7,009.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
7,400.0	7,109.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
7,500.0	7,209.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
7,600.0	7,309.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
7,700.0	7,409.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
7,800.0	7,509.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
7,900.0	7,609.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
8,000.0	7,709.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
8,100.0	7,809.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
8,200.0	7,909.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
8,300.0	8,009.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
8,400.0	8,109.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
8,500.0	8,209.4	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59
8,522.6	8,232.0	0.00	0.00	0.00	949.5	2,003,187.66	1,364,639.59

Checked By: _____ Approved By: _____ Date: _____

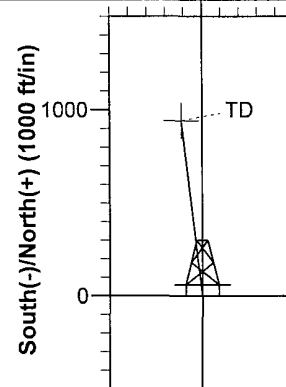
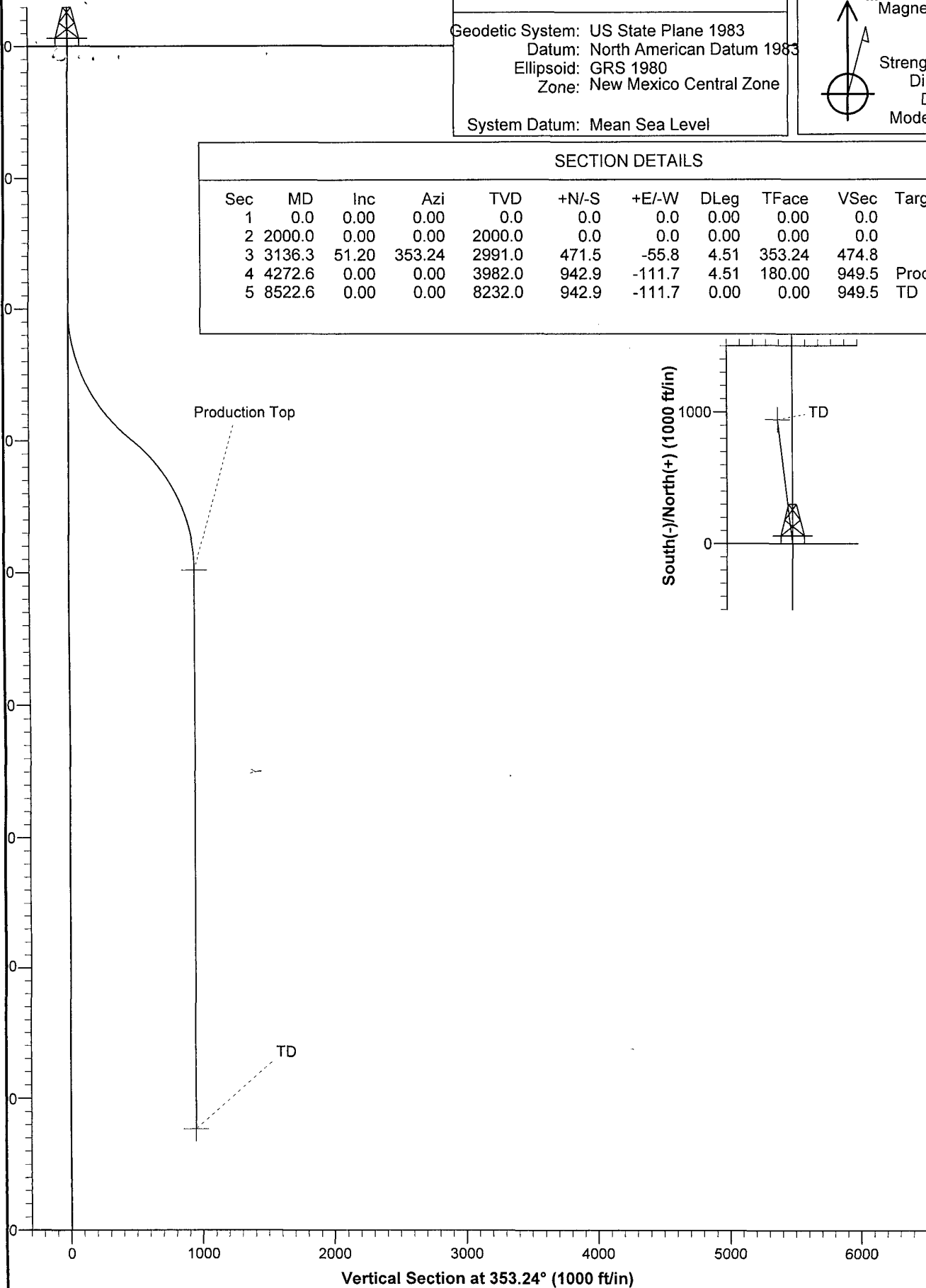
PROJECT DETAILS: Jicarilla

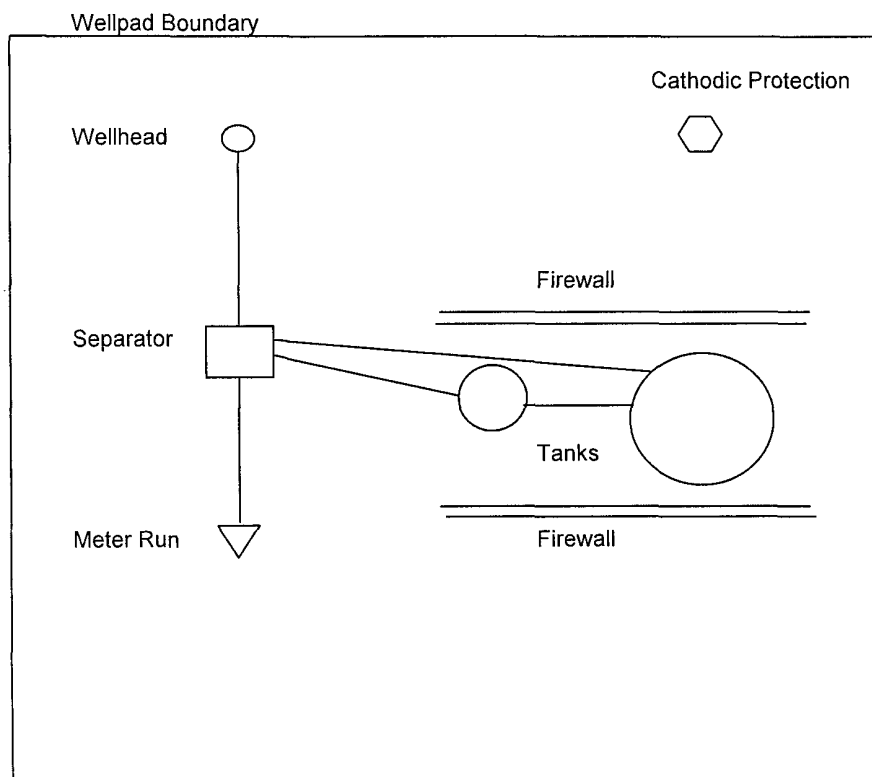
Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Central Zone
 System Datum: Mean Sea Level


 Azimuths to True North
 Magnetic North: 9.90°
 Magnetic Field
 Strength: 50936.1snT
 Dip Angle: 63.43°
 Date: 1/15/2009
 Model: IGRF200510

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	2000.0	0.00	0.00	2000.0	0.0	0.0	0.00	0.00	0.0	
3	3136.3	51.20	353.24	2991.0	471.5	-55.8	4.51	353.24	474.8	
4	4272.6	0.00	0.00	3982.0	942.9	-111.7	4.51	180.00	949.5	Production Top
5	8522.6	0.00	0.00	8232.0	942.9	-111.7	0.00	0.00	949.5	TD





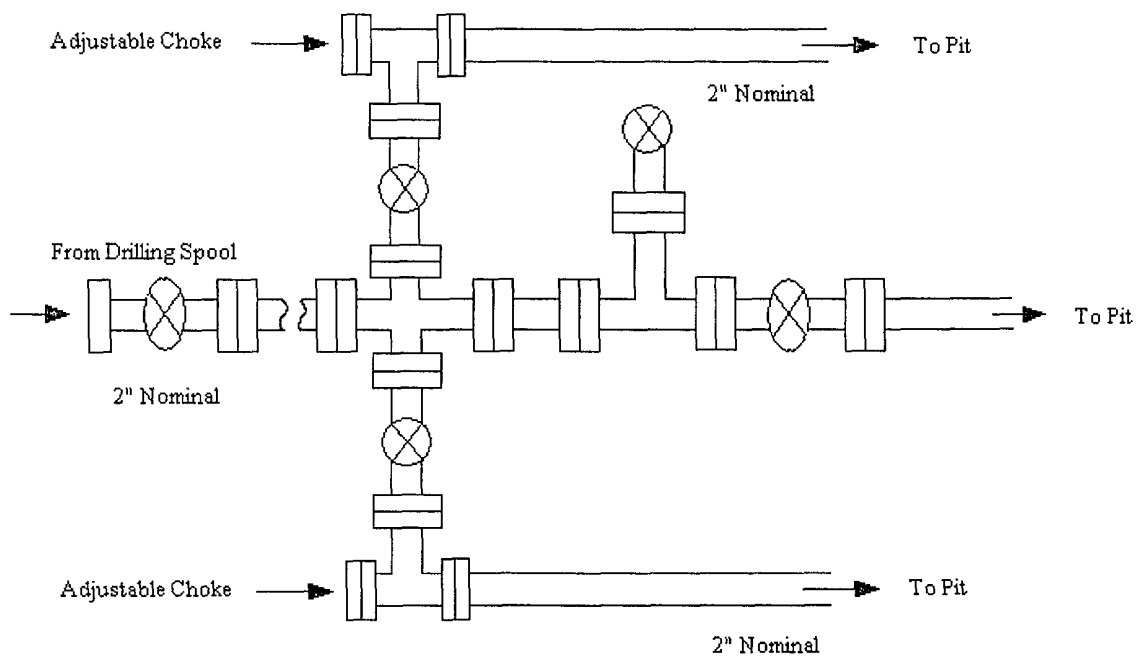
Anticipated Production Facilities and Layout for a MV and or DK Well

DRILLING CONDITIONS OF APPROVAL

Operator: Energen Resources
Lease No.: Jicarilla Contract 97
Well Name: Jicarilla 97 #6N
Well Location: Sec. 7, T26N, R3W; 1907' FSL & 1850' FWL

1. Since no BOPE test pressures were proposed, it is recommended that Energen Resources test the BOP and related equipment according to Onshore Order No. 2 *Minimum Standards and Enforcement Provisions For Well Control Equipment Testing*.

Energen Resources Corporation
Typical 2000 psi Choke Manifold Configuration



Choke manifold installed from surface to TD

Energen Resources Corporation

Typical BOP Configuration for Gas Drilling

