

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

MAY 27 2008

FORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

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.

Bureau of Land Management
Farmington Field Office

SUBMIT IN TRIPLICATE - Other instructions on reverse side

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Energen Resources Corporation

3a. Address

2010 Afton Place, Farmington, NM 87401

3b. Phone No (include area code)

(505) 325-6800

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

425 fsl, 1640' fel

(O) Sec 32, T28N, R08W

5. Lease Serial No.

NM 013363

6. Indian, Allottee or Tribe Name

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

Phillips

8. Well Name and No.

#3F

9. API Well No.

30-045-34666

10. Field and Pool, or Exploratory Area

Basin Dakota

11. County or Parish, State

San Juan

NM

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

TYPE OF SUBMISSION

☒ Notice of Intent☐ Subsequent Report☐ Final Abandonment Notice

TYPE OF ACTION

☐ Acidize☐ Alter Casing☐ Casing Repair☒ Change Plans☐ Convert to Injection☐ Deepen☐ Fracture Treat☐ New Construction☐ Plug and Abandon☐ Plug Back☐ Production (Start/Resume)☐ Reclamation☐ Recomplete☐ Temporarily Abandon☐ Water Disposal☐ Water Shut-Off☐ Well Integrity☐ Other

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 shall 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 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the final site is ready for final inspection.)

Energen Resources would like to make the following changes to the Phillips #3F:

-Change the BHL to 1723 fml, 660 fwl of section 32 and ~~enter the Dakota sand~~ at 2046 fml, 1975 fwl will negate the need for an NSL approval. ✓ **Land Curve**

-Change the intermediate casing set depth to 8000' MD with no change in cement slurry volume.

-Change the production liner set depths from 7950' - 9782' MD.

-New TD of the well will be 9782' MD.

Attached are a revised C-102, Operations Plan, and Directional Plan.

Hold C104

for Directional Survey
and "As Drilled" platCONDITIONS OF APPROVAL
Adhere to previously issued stipulationsRCVD JUN 4
OIL CONS. DIST.PIT, CLOSED LOOP SYSTEM, BELOW
GRADE TANK, PROPOSED
ALTERNATIVE METHOD OR CLOSURE
PLAN TO BE DESIGNED, CONSTRUCTED
& OPERATED PURSUANT TO NMOCD
RULE 19.15.17 EFFECTIVE 06/16/0814. I hereby certify that the foregoing is true and correct
Name (Printed/Typed)

Nathan Smith

Title

Drilling Engineer

DIST. 3

Date 5/23/2008

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Troy L. Salvors

Title

Petroleum Engineer

Date

6-2-08

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

Office

FFO

Title 18 U.S.C. Section 1001, and Title 43 U.S.C. Section 1212, makes 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.

NMOCD

RECEIVEDDistrict 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 & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

MAY 27 2008

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

Bureau of Land Management State Lease - 4 Copies

Farmington Field Office Fee Lease - 3 Copies

☒ AMENDED REPORT**WELL LOCATION AND ACREAGE DEDICATION PLAT**

¹ API Number 30-045-34666	² Pool Code 71599	³ Pool Name Basin Dakota
⁴ Property Code	⁵ Property Name Phillips	⁶ Well Number #3F
⁷ OGRID No. 162928	⁸ Operator Name Energen Resources Corporation	⁹ Elevation 6379' GL

¹⁰ Surface Location

UL or lot no. O	Section 32	Township 28N	Range 8W	Lot Idn	Feet from the 425	North/South line South	Feet from the 1640	East/West line East	County San Juan
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¹¹ Bottom Hole Location If Different From Surface

UL or lot no. E	Section 32	Township 28N	Range 8W	Lot Idn	Feet from the 1723	North/South line North	Feet from the 660	East/West line West	County San Juan
¹² Dedicated Acres 305.87 W/2	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ 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.

	¹⁷ OPERATOR CERTIFICATION <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division</i> Signature 5/23/2008 Date Nathan Smith Printed Name
	¹⁸ SURVEYOR CERTIFICATION <i>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.</i> August 6, 2007 Date of Survey Signature and Seal of Professional Surveyor: Original Survey Conducted and Recorded by W. Benally 11952 Certificate Number

Operations Plan

May 23, 2008

Phillips #3F

General Information

Location	425 fsl, 1640 fel at surface 1723 fnl, 660 fwl at bottom swnw 32, T28N, R8W San Juan County, New Mexico
Elevations	6379' GL
Total Depth	9782' (MD), 7031' (TVD)
Formation Objective	Dakota – Paguate Sand

Formation Tops

San Jose	Surface	Cliffhouse	4276' (TVD), 4318' (MD)
Nacimiento	62' (TVD)	Menefee	4301' (TVD), 4346' (MD)
Ojo Alamo Ss	691' (TVD)	Point Lookout	4891' (TVD), 5018' (MD)
Kirtland Sh	1816' (TVD)	Mancos Sh	5251' (TVD), 5427' (MD)
Fruitland Fm	2171' (TVD)	Gallup	6035' (TVD), 6320' (MD)
Pictured Cliffs	2636' (TVD)	Greenhorn	6801' (TVD), 7242' (MD)
Lewis Shale	2791' (TVD)	Graneros	6865' (TVD), 7350' (MD)
		Dakota	
		Top Paguate Sand	7021' (TVD), 7796' (MD)
		Base Paguate Sand	7041' (TVD)

TOTAL DEPTH 9782' (MD), 7031' (TVD)

Drilling

Surface Wellbore: 12 ¼" wellbore will be drilled with spud mud.

Intermediate Wellbore: 8 ¾" wellbore will be drilled with a Low Solids Non-Dispersed mud with densities expected to range from 8.8 ppg to 9.2 ppg.

Production Wellbore: 6 1/8" wellbore will be drilled with Air/Mist.

Projected KOP is 3570' TVD with 5.0°/100' average doglegs. Anticipated BHP is 500 psi.

Blowout Control Specifications:

A 3000 psi minimum double ram or annulus BOP stack 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 in conjunction with the 3000 psi BOP. BOP will be tested to 1500 psi prior to drilling out of surface. 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: FMI (Focused Micro Imaging)

Mud logs: 6035' TVD, 6320' MD to TD

Surveys: Surface to KOP every 500' and a minimum of every 200' for directional.

Tubulars

Casing, Tubing, & Casing Equipment:

String	Interval	Wellbore	Casing	Csg Wt	Grade
Conductor	0-250'	17 ½"	13 3/8"	48.0 ppf	H-40 ST&C
Surface	0'-2000'	12 ¼"	9 5/8"	36.0 ppf	J-55 LT&C
Intermediate	0'-7031' TVD	8 ¾"	7 5/8"		
	0-4950' MD	8 ¾"	7 5/8"	26.4 ppf	J-55 FJ
	4950'-8000' MD	8 ¾"	7 5/8"	26.4 ppf	HCN-80 FJ
Prod Liner	7021'-7041' (TVD)	6 ¼"	4 ½"	11.6 ppf	J-55 LT&C
	7950'-9782' (MD)				
Tubing	0'-7900' (MD)		2 3/8"	4.7 ppf	J-55

Casing Equipment:

Conductor Casing: Sawtooth Guide Shoe on bottom of first joint. Insert Float Valve on top of first joint. One regular bow spring centralizer every joint to surface.

Surface Casing: Self fill float shoe on bottom of first joint. Self fill float collar on top of second joint. Casing centralization with standard bow spring centralizers to achieve optimal standoff.

Intermediate Casing: Self fill float shoe on bottom of first joint. Self fill float collar on top of second joint. Casing centralization with double bow spring centralizers and rigid centralizers to optimize standoff. **Place stage collars at 5350' and 2900' TVD.**

Liner: Bull nose guide shoe on bottom of first joint. Ported packer system spaced out along liner string. Total number and placement position to be determined off FMI log interpretation.

Wellhead

3000 psi 11" x 9 5/8" casing head. 9 5/8" x 7" x 2 3/8" 5000 psi Flanged Slip-on Wellhead. Slip on wellhead will be welded.

Cementing

Conductor Casing: 350 sks Type V with 2.0 % CaCl₂ and ½ #/sk Cellophane Flakes (15.6 ppg, 1.18 ft³/sk 413 ft³).

Surface Casing: 490 sks 65/35 with 2.0 % CaCl₂, 10 #/sk Gilsonite and ½ #/sk Cellophane Flakes and a tail slurry of 375 sks Class G with 1.0 % CaCl₂ and ¼ #/sk Cellophane Flakes (15.6 ppg, 1.18 ft³/sk 578 ft³). WOC 12 hours prior to nipple up BOP. Pressure test surface casing to 750 psi for 30 min. Test BOP to 1500 psi for 30 min. Test choke manifold to 750 psi for 30 min.

Intermediate Casing:

1st Stage: 350 sks 50/50 Class G with 0.20 % Halad-344, 0.10 % CFR-3, 5 #/sk Gilsonite, ¼ #/sk Cellophane Flakes (13.5 ppg, 1.30 ft³/sk). Circulate 4 hours at time of plug down on first stage.

2nd Stage: 200 sks 65/35 with 6.0 % Bentonite, 2.0 % CaCl₂, 10 #/sk Gilsonite, and ½ #/sk Flocele (12.3 ppg, 1.96 ft³/sk) and a tail of 50 sks Class G 1.0 % CaCl₂. (15.6 ppg, 1.18 ft³/sk). Circulated 4 hours at time stage tool is closed.

3rd Stage: 225 sks 65/35 with 6.0 % Bentonite, 2.0 % CaCl₂, 10 #/sk Gilsonite, and ½ #/sk Flocele (12.3 ppg, 1.96 ft³/sk) and a tail of 50 sks Glass G 1.0 % CaCl₂. (15.6 ppg, 1.18 ft³/sk).

Cement volumes are based on 50 % excess of true hole volume and an 80 shoe track (1393.25 ft³). If caliper log is ran, cement volumes will be based on 30 % excess above caliper log. WOC 12 hours prior to nipple up of BOP. Test casing to 1500 psi for 30 min.

Production Liner: NO CEMENT, Open Hole Completion

Other Information

- 1) This well will be an open hole completion lined with an uncemented pre-drilled liner. The Dakota will be fracture stimulated.
- 2) If lost circulation is encountered. The intermediate string may need to be cemented in multiple stages with a slurry design deviated from that listed above.
- 3) If high reservoir pressures or water flows are encountered slurry design may need to be deviated to from those listed above to satisfy wellbore and formation conditions.
- 4) No abnormal temperatures or pressures are anticipated. This gas is dedicated.

Energen Resources

SJ BR - NW S32, T28N, R8W

Fresno Canyon

Phillips #3F

Final Plan

Plan: Plan #2

Planned Wellpath

23 May, 2008

Project: SJ BR - NW S32, T28N, R8W
Site: Fresno Canyon
Well: Phillips #3F
Wellbore: Final Plan
Plan: Plan #2 (Phillips #3F/Final Plan)

PROJECT DETAILS: SJ BR - NW S32, T28N, R8W

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

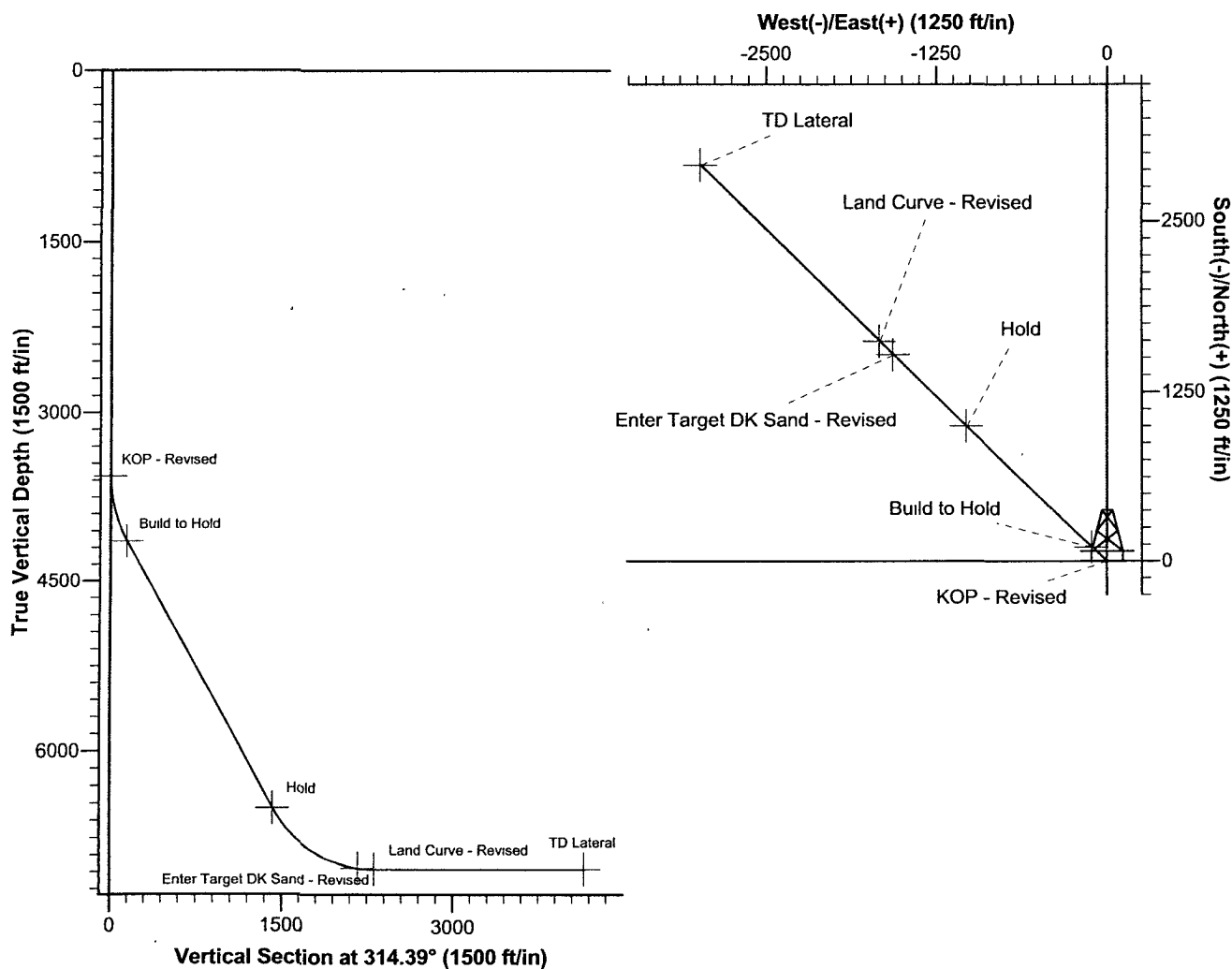


Azimuths to True North
Magnetic North: 10.21°

Magnetic Field
Strength: 50997.2snT
Dip Angle: 63.44°
Date: 5/23/2008
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	3570.0	0.00	0.00	3570.0	0.0	0.0	0.00	0.00	0.0	KOP - Revised
3	4174.6	28.50	314.37	4150.0	103.0	-105.3	4.71	314.37	147.3	Build to Hold
4	6848.7	28.50	314.42	6500.0	995.6	-1017.0	0.00	91.98	1423.2	Hold
5	7796.1	81.95	314.38	7021.0	1520.5	-1553.2	5.64	-0.05	2173.6	Enter Target DK Sand - Revised
6	7938.8	90.00	314.43	7031.0	1620.0	-1654.8	5.64	0.37	2315.8	Land Curve - Revised
7	9782.0	90.00	314.36	7031.0	2909.5	-2971.8	0.00	-92.65	4158.9	TD Lateral



Energen

Planned Wellpath



Company: Energen Resources
Project: SJ BR - NW S32, T28N, R8W
Site: Fresno Canyon
Well: Phillips #3F
Wellbore: Final Plan
Design: Plan #2

Local Co-ordinate Reference: Well Phillips #3F
TVD Reference: KB @ 6392.0ft (Drilling Rig)
MD Reference: KB @ 6392.0ft (Drilling Rig)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Project	SJ BR - NW S32, T28N, R8W		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site	Fresno Canyon		
Site Position:		Northing:	2,042,243.93 ft
From:	Lat/Long	Easting:	2,761,964.57 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	36° 36' 44.568 N
		Longitude:	107° 42' 3.168 W
		Grid Convergence:	0.08 °

Well	Phillips #3F		
Well Position	+N/-S	0.0 ft	Northing: 2,042,243.93 ft
	+E/-W	0.0 ft	Easting: 2,761,964.57 ft
Position Uncertainty	0.0 ft	Wellhead Elevation:	6,379.0 ft
		Latitude:	36° 36' 44.568 N
		Longitude:	107° 42' 3.168 W
		Ground Level:	6,379.0 ft

Wellbore	Final Plan				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	5/23/2008	10.21	63.45	50,997

Design	Plan #2				
Audit Notes:					
Version:	Phase:	PROTOTYPE		Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.0	0.0	0.0	314.39	

Survey Tool Program	Date	5/23/2008			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.0	9,782.0	Plan #2 (Final Plan)	MWD	MWD - Standard	

Planned Survey							
MD (ft)	TVD (ft)	Inc (°)	Azi (°)	Build (°/100ft)	V. Sec (ft)	N/S (ft)	E/W (ft)
0.0	0.0	0.00	0.00	0.00	0.0	0.0	0.0
100.0	100.0	0.00	0.00	0.00	0.0	0.0	0.0
200.0	200.0	0.00	0.00	0.00	0.0	0.0	0.0
300.0	300.0	0.00	0.00	0.00	0.0	0.0	0.0
400.0	400.0	0.00	0.00	0.00	0.0	0.0	0.0
500.0	500.0	0.00	0.00	0.00	0.0	0.0	0.0
600.0	600.0	0.00	0.00	0.00	0.0	0.0	0.0
700.0	700.0	0.00	0.00	0.00	0.0	0.0	0.0
800.0	800.0	0.00	0.00	0.00	0.0	0.0	0.0
900.0	900.0	0.00	0.00	0.00	0.0	0.0	0.0
1,000.0	1,000.0	0.00	0.00	0.00	0.0	0.0	0.0
1,100.0	1,100.0	0.00	0.00	0.00	0.0	0.0	0.0

Energen

Planned Wellpath



Company: Energen Resources
Project: SJ BR - NW S32, T28N, R8W
Site: Fresno Canyon
Well: Phillips #3F
Wellbore: Final Plan
Design: Plan #2

Local Co-ordinate Reference: Well Phillips #3F
TVD Reference: KB @ 6392.0ft (Drilling Rig)
MD Reference: KB @ 6392.0ft (Drilling Rig)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	Build (°/100ft)	V. Sec (ft)	N/S (ft)	E/W (ft)
1,200.0	1,200.0	0.00	0.00	0.00	0.0	0.0	0.0
1,300.0	1,300.0	0.00	0.00	0.00	0.0	0.0	0.0
1,400.0	1,400.0	0.00	0.00	0.00	0.0	0.0	0.0
1,500.0	1,500.0	0.00	0.00	0.00	0.0	0.0	0.0
1,600.0	1,600.0	0.00	0.00	0.00	0.0	0.0	0.0
1,700.0	1,700.0	0.00	0.00	0.00	0.0	0.0	0.0
1,800.0	1,800.0	0.00	0.00	0.00	0.0	0.0	0.0
1,900.0	1,900.0	0.00	0.00	0.00	0.0	0.0	0.0
2,000.0	2,000.0	0.00	0.00	0.00	0.0	0.0	0.0
2,100.0	2,100.0	0.00	0.00	0.00	0.0	0.0	0.0
2,200.0	2,200.0	0.00	0.00	0.00	0.0	0.0	0.0
2,300.0	2,300.0	0.00	0.00	0.00	0.0	0.0	0.0
2,400.0	2,400.0	0.00	0.00	0.00	0.0	0.0	0.0
2,500.0	2,500.0	0.00	0.00	0.00	0.0	0.0	0.0
2,600.0	2,600.0	0.00	0.00	0.00	0.0	0.0	0.0
2,700.0	2,700.0	0.00	0.00	0.00	0.0	0.0	0.0
2,800.0	2,800.0	0.00	0.00	0.00	0.0	0.0	0.0
2,900.0	2,900.0	0.00	0.00	0.00	0.0	0.0	0.0
3,000.0	3,000.0	0.00	0.00	0.00	0.0	0.0	0.0
3,100.0	3,100.0	0.00	0.00	0.00	0.0	0.0	0.0
3,200.0	3,200.0	0.00	0.00	0.00	0.0	0.0	0.0
3,300.0	3,300.0	0.00	0.00	0.00	0.0	0.0	0.0
3,400.0	3,400.0	0.00	0.00	0.00	0.0	0.0	0.0
3,500.0	3,500.0	0.00	0.00	0.00	0.0	0.0	0.0
3,570.0	3,570.0	0.00	0.00	0.00	0.0	0.0	0.0
KOP - Revised							
3,600.0	3,600.0	1.41	314.37	4.71	0.4	0.3	-0.3
3,700.0	3,699.8	6.13	314.37	4.71	6.9	4.9	-5.0
3,800.0	3,798.6	10.84	314.37	4.71	21.7	15.2	-15.5
3,900.0	3,896.0	15.55	314.37	4.71	44.5	31.1	-31.8
4,000.0	3,991.1	20.27	314.37	4.71	75.3	52.6	-53.8
4,100.0	4,083.4	24.98	314.37	4.71	113.7	79.5	-81.3
4,174.6	4,150.0	28.50	314.37	4.71	147.3	103.0	-105.3
Build to Hold							
4,200.0	4,172.3	28.50	314.37	0.00	159.4	111.5	-114.0
4,300.0	4,260.2	28.50	314.37	0.00	207.1	144.8	-148.1
4,400.0	4,348.1	28.50	314.37	0.00	254.8	178.2	-182.2
4,500.0	4,435.9	28.50	314.37	0.00	302.6	211.6	-216.3
4,600.0	4,523.8	28.50	314.38	0.00	350.3	244.9	-250.4
4,700.0	4,611.7	28.50	314.38	0.00	398.0	278.3	-284.5
4,800.0	4,699.6	28.50	314.38	0.00	445.7	311.7	-318.6
4,900.0	4,787.5	28.50	314.38	0.00	493.4	345.1	-352.7
5,000.0	4,875.4	28.50	314.38	0.00	541.1	378.4	-386.8
5,100.0	4,963.2	28.50	314.39	0.00	588.8	411.8	-420.9
5,200.0	5,051.1	28.50	314.39	0.00	636.6	445.2	-455.0

Energen

Planned Wellpath



Company: Energen Resources
Project: SJ BR - NW S32, T28N, R8W
Site: Fresno Canyon
Well: Phillips #3F
Wellbore: Final Plan
Design: Plan #2

Local Co-ordinate Reference: Well Phillips #3F
TVD Reference: KB @ 6392.0ft (Drilling Rig)
MD Reference: KB @ 6392.0ft (Drilling Rig)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	Build (°/100ft)	V. Sec (ft)	N/S (ft)	E/W (ft)
5,300.0	5,139.0	28.50	314.39	0.00	684.3	478.6	-489.1
5,400.0	5,226.9	28.50	314.39	0.00	732.0	511.9	-523.2
5,500.0	5,314.8	28.50	314.39	0.00	779.7	545.3	-557.3
5,600.0	5,402.6	28.50	314.40	0.00	827.4	578.7	-591.4
5,700.0	5,490.5	28.50	314.40	0.00	875.1	612.1	-625.5
5,800.0	5,578.4	28.50	314.40	0.00	922.8	645.5	-659.6
5,900.0	5,666.3	28.50	314.40	0.00	970.6	678.8	-693.7
6,000.0	5,754.2	28.50	314.40	0.00	1,018.3	712.2	-727.7
6,100.0	5,842.1	28.50	314.40	0.00	1,066.0	745.6	-761.8
6,200.0	5,929.9	28.50	314.41	0.00	1,113.7	779.0	-795.9
6,300.0	6,017.8	28.50	314.41	0.00	1,161.4	812.4	-830.0
6,400.0	6,105.7	28.50	314.41	0.00	1,209.1	845.8	-864.1
6,500.0	6,193.6	28.50	314.41	0.00	1,256.8	879.2	-898.2
6,600.0	6,281.5	28.50	314.41	0.00	1,304.6	912.6	-932.3
6,700.0	6,369.4	28.50	314.42	0.00	1,352.3	946.0	-966.3
6,800.0	6,457.2	28.50	314.42	0.00	1,400.0	979.4	-1,000.4
6,848.7	6,500.0	28.50	314.42	0.00	1,423.2	995.6	-1,017.0
Hold							
6,900.0	6,544.5	31.40	314.41	5.64	1,448.8	1,013.5	-1,035.3
7,000.0	6,627.1	37.04	314.41	5.64	1,505.0	1,052.9	-1,075.5
7,100.0	6,703.9	42.68	314.40	5.64	1,569.1	1,097.7	-1,121.2
7,200.0	6,773.9	48.32	314.39	5.64	1,640.4	1,147.6	-1,172.2
7,300.0	6,836.7	53.96	314.39	5.64	1,718.2	1,202.0	-1,227.8
7,400.0	6,891.4	59.60	314.39	5.64	1,801.9	1,260.5	-1,287.6
7,500.0	6,937.7	65.25	314.38	5.64	1,890.5	1,322.5	-1,350.9
7,600.0	6,975.0	70.89	314.38	5.64	1,983.2	1,387.4	-1,417.1
7,700.0	7,003.1	76.53	314.38	5.64	2,079.1	1,454.5	-1,485.7
7,796.1	7,021.0	81.95	314.38	5.64	2,173.6	1,520.5	-1,553.2
Enter Target DK Sand - Revised							
7,800.0	7,021.5	82.17	314.38	5.64	2,177.4	1,523.2	-1,555.9
7,900.0	7,030.3	87.81	314.41	5.64	2,277.0	1,592.8	-1,627.1
7,938.8	7,031.0	90.00	314.43	5.64	2,315.8	1,620.0	-1,654.8
Land Curve - Revised							
8,000.0	7,031.0	90.00	314.43	0.00	2,376.9	1,662.8	-1,698.5
8,100.0	7,031.0	90.00	314.42	0.00	2,476.9	1,732.8	-1,769.9
8,200.0	7,031.0	90.00	314.42	0.00	2,576.9	1,802.8	-1,841.3
8,300.0	7,031.0	90.00	314.42	0.00	2,676.9	1,872.8	-1,912.8
8,400.0	7,031.0	90.00	314.41	0.00	2,776.9	1,942.8	-1,984.2
8,500.0	7,031.0	90.00	314.41	0.00	2,876.9	2,012.8	-2,055.6
8,600.0	7,031.0	90.00	314.40	0.00	2,976.9	2,082.7	-2,127.1
8,700.0	7,031.0	90.00	314.40	0.00	3,076.9	2,152.7	-2,198.5
8,800.0	7,031.0	90.00	314.40	0.00	3,176.9	2,222.7	-2,270.0
8,900.0	7,031.0	90.00	314.39	0.00	3,276.9	2,292.6	-2,341.4
9,000.0	7,031.0	90.00	314.39	0.00	3,376.9	2,362.6	-2,412.9
9,100.0	7,031.0	90.00	314.39	0.00	3,476.9	2,432.5	-2,484.3

Energen
Planned Wellpath



Company: Energen Resources
Project: SJ BR - NW S32, T28N, R8W
Site: Fresno Canyon
Well: Phillips #3F
Wellbore: Final Plan
Design: Plan #2

Local Co-ordinate Reference: Well Phillips #3F
TVD Reference: KB @ 6392.0ft (Drilling Rig)
MD Reference: KB @ 6392.0ft (Drilling Rig)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.16 Single User Db

Planned Survey

MD (ft)	TVD (ft)	Inc (°)	Azi (°)	Build (°/100ft)	V. Sec (ft)	N/S (ft)	E/W (ft)
9,200.0	7,031.0	90.00	314.38	0.00	3,576.9	2,502.5	-2,555.8
9,300.0	7,031.0	90.00	314.38	0.00	3,676.9	2,572.4	-2,627.3
9,400.0	7,031.0	90.00	314.38	0.00	3,776.9	2,642.4	-2,698.7
9,500.0	7,031.0	90.00	314.37	0.00	3,876.9	2,712.3	-2,770.2
9,600.0	7,031.0	90.00	314.37	0.00	3,976.9	2,782.2	-2,841.7
9,700.0	7,031.0	90.00	314.37	0.00	4,076.9	2,852.2	-2,913.2
9,782.0	7,031.0	90.00	314.36	0.00	4,158.9	2,909.5	-2,971.8

TD Lateral

Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
KOP - Revised - plan hits target - Point	0.00	0.00	3,570.0	0.0	0.0	2,042,243.93	2,761,964.57	36° 36' 44.568 N	107° 42' 3.168 W
TD Lateral - plan hits target - Point	0.00	0.00	7,031.0	2,909.5	-2,971.8	2,045,149.33	2,758,988.76	36° 37' 13.338 N	107° 42' 39.625 W
Land Curve - Revised - plan hits target - Point	0.00	0.00	7,031.0	1,620.0	-1,654.8	2,043,861.65	2,760,307.54	36° 37' 0.587 N	107° 42' 23.468 W
Enter Target DK Sand - plan hits target - Point	0.00	0.00	7,021.0	1,520.5	-1,553.2	2,043,762.29	2,760,409.27	36° 36' 59.604 N	107° 42' 22.221 W
Hold - plan hits target - Point	0.00	0.00	6,500.0	995.6	-1,017.0	2,043,238.13	2,760,946.20	36° 36' 54.413 N	107° 42' 15.643 W
Build to Hold - plan hits target - Point	0.00	0.00	4,150.0	103.0	-105.3	2,042,346.78	2,761,859.13	36° 36' 45.587 N	107° 42' 4.460 W

Checked By: _____ Approved By: _____ Date: _____