Form 3160-5 (August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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

5.	Lease	Serial	No.

SUNDKY NOTIC	ES AND	KEPOK 15	ON	WELLS	 	PRINCES 13	PA
ot use this form	for prope	scale to drill	~- *	ro ontor		<u></u>	P.

	OMB NO. 1004-0137 Expires July 31, 2010	
_	Lease Serial No.	

Do not use this form for abandoned well. Use For	proposals to drill or to re m 3160-3 (APD) for such	proposals.	a 2000
SUBMIT IN TRIPLICA	TE - Other instructions on p	page 2	7. If Unit or CA/Agreement, Name and/or No
Type of Well Oil Well Gas Well Other Other		Farmington	8. Well Name and No. McCroden B 3B
2 Name of Operator			Morrodell p 2p
Energen Resources Corporation		•	9. API Well No.
3a. Address	3b. Ph	one No. (include area code)	30-039-30502
2010 Afton Place, Farmington, NM 8	37401	(505) 325-6800	10. Field and Pool, or Exploratory Area
4. Location of Well (Footage, Sec., T., R., M., or Survey			Mesa Verde
995' FSL and 965' FWL Sec. 3 T 23 N	R 3W		i
22#			11. County or Parish, State
	,		Rio Arriba
12. CHECK APPROPRIAT	E BOX(ES) TO INDICATI	E NATURE OF NOTICE, R	EPORT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACT	TION
Notice of Intent	Acidize	Deepen Proc	duction (Start/Resume) Water Shut-Off
	Alter Casing	Fracture Treat Rec	amation Well Integrity
Subsequent Report	Casing Repair	New Construction Rec	omplete Other
Circl About town of Notice	Change Plans		porarily Abandon
Final Abandonment Notice	Convert to Injection	Plug Back Wat	er Disposal
determined that the final site is ready for final insp Due to hole problems the McCroder verbably, the wellbore will be al The well will then be drilled ver attached sidetrack plan as well. Before the McCroden will be produ plugged and the well will be rena	n B 3B needs to be side condoned as described rtically in Sec. 3. The condone of the other	on the attached side ne drilling, casing a Mesa Verde wells in	strack plan. Indoormenting plans are on the
for Direct	ld C104 tional Survey Drilled" plat		NS OF APPROVAL iously issued stipulations.
14. I hereby certify that the foregoing is true and correct Name (Printed Typed) Devin Mills		ıtle Drilling Engi	neer
Signature	D	Date 01/07/09	
THI	S SPACE FOR FEDERAL	OR STATE OFFICE USE	,
Approved by Troy L Salvers		Title PE	Date 2/27/2009
Conditions of approval, if any, are attached Approval of this no the applicant holds legal or equitable title to those rights in the si- entitle the applicant to conduct operations thereon	tice does not warrant or certify that ubject lease which would	Office FFO	

Sidetrack Plan for McCroden B 3B

1/07/09

- 1. Complete abandonment procedures as covered below;
 - a. Set balanced plug from 5817' MD to 5300' (100' above Mesa Verde)
 - i. 162 sx of 50/50 poz/"G" with 0.3% Halad 344 (13.5 ppg 1.33 ft³/sx)
 - b. Wait 12 hrs and tag top of plug.
 - c. Pull up to 4100' MD and pump the
 - i. 161 sx of class "G" with 3% KCl. $(16.4 \text{ ppg } 1.04 \text{ ft}^3/\text{sx})$
- 2. Wait 12 hrs after setting kick off plug and dress off plug to 9 5/8" casing shoe (3824' MD)
- 3. Wait 24 hrs after dressing off plug and begin kick off.
- 4. Use a 8 3/4" tri-cone bit, pendulum assembly (stabilizers at 30' and 60') and Weathorford's small air package to drill out.
 - a. Keep weight to a minimum to ensure that new hole is drilled vertically.
 - b. Be prepared for a water flow at ± 4100 '. If water flow is encountered:
 - i. Drill to 4300' taking surveys every 250'.
 - 1. Differential sticking highly likly after water flow is encountered keep pipe moving at all times.
 - ii. Condition hole for casing.
 - iii. Run 700' of 7" 26# HCL-80. With a 30' shoe tract, centralization as necessary and a TIW 7" x 9 5/8" liner hanger.
 - iv. Hang liner with a 200' lap and establish circulation. Circulate 2 full casing volumes ~4500 scf.
 - v. Cement casing with 126 sx of 50/50 poz/"G" with 2.0% Bentonite, 0.8% Halad-9, 5.0 pps Gilsonite, 0.25 pps Flocele at13.0 ppg and 1.3 ft³/sx (50% excess). Displace with freshwater ~ 21.6 bbls. 1.03 bbls should be circulated back to surface. Leave some cement above liner top.
 - vi. Wait 12 hrs before testing casing to 1500 psi.
- 5. Pick up air hammer package and drill to TD of 6055' taking surveys every 250'.
- 6. Prepare hole for logs and log hole with triple combo.
- 7. Clean out hole for casing
- 8. Run 5 ½" 15.5# J-55 casing to 6355' with a 30' shoe tract, a swedge to 7" 26# HCL-80 hung off in a TIW 9 5/8" x 7" liner hanger with a stinger down into the 5 ½" casing for the plugs. Hang off liner with a 200' lap.
 - a. If water flow was hit run 4 ½" 11.6# J-55 to 6355' (first two joints to be 4 ½" 15.1# J-55) with a 4 ½" x 7" TIW liner hanger. Hang off liner with a 200' lap.
- 9. Cement casing with 50/50 poz/"G" with 2.0% Bentonite, 0.8% Halad-9, 5.0 pps Gilsonite, 0.25 pps Flocele at13.0 ppg and 1.3 ft³/sx (50% excess). Volume of cement to be determined by caliper log. Displace cement with 2% KCL.
- 10. Install well head (from Big Red) and secure well.



Gyroscopic Survey Report for ENERGEN

Well Location			
Well Name	MC CRODENB#3B		
Rig Name	AZTEC#222		
Survey Date	2009/01/06		
Latitude 36.42 deg			
North Reference	True North		
Grid Correction	0.00 deg		
Depth Reference	RKB12 FT		
Calculation Method	culation Method Minimum Curvature		
Section (VS) Ref	0.00N (ft), 0.00E (ft), 0.00Azim (deg)		
Definitive Survey	Computed from MC.BIN's HighSpeed: OutRun		
Operator	MATLOCKSTANLEY		
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Comments

SURVEYED FROM RKB TO 3750.00

RCVD MAR 2 '04' OIL CONS. DIV. DIST. 3



Survey Report

Well Name: MC CRODENB#3B Computed from MC.BIN's HighSpeed: OutRun Survey: Survey Date: 2009/01/06 TVD DLS **Closure Distance Closure Angle** MD Inc Azim VS Northing **Easting** deg/100ft deg deg ft ft deg 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 Invalid 100.00 100.00 -0 15 0.35 0 44 038 113.21 0.44 113.21 -0.15 107.18 0.94 200.00 0.22 82.90 200.00 -0.28 -0.280.90 0.27 116.18 300.00 0.47 154.29 300.00 -0.62-0.62 1.27 0.45 1.42 400.00 2.26 125.96 0.58 131.09 399.99 -1.33 -1.33 1.83 0.23 499.99 500.00 0.56 129.75 -1.97 -1.97 2.58 0.02 3.25 127.32 600.00 0.42 152.34 599.98 -2.60-2.60 3.13 0.24 4.07 129.77 700.00 0.59 136.47 699.98 -3.30 -3.30 3.65 0.22 4.92 132.10 133.02 800.00 0.27 144.97 799.98 -3.86-3.864.14 0 32 5.66 134.09 900.00 4.51 0 18 6.27 0.45 143.01 899.97 -4.37-4.37 1000.00 4.88 0.20 6.88 134.77 0.25 139.74 999.97 -4.84 -4.84 1100.00 7.20 134.76 0.13 124.47 1099.97 -5.07 -5.07 5.12 0.13 135.38 1200.00 0.12 221.74 1199.97 -5.21 -5.21 5.14 0.18 7.32 1300.00 4.96 0.09 7.26 136.89 0.13 264.06 1299.97 -5.30 -5.30 1400.00 0.23 282.86 1399.97 -5.27 -5.27 4 65 0.11 7.03 138.54 6.86 139.29 1500.00 0.03 42.28 1499.97 -5.20-5.204.47 0.25 0.12 6.81 139.63 1600.00 0.09 264.01 -5.19 4.41 1599.97 -5.191700.00 0.07 2.54 1699.97 -5.14 -5.14 4.33 0.12 6.72 139.87 1800.00 6.61 138.70 0.14 13.39 1799.97 -4.97 -4 97 4.36 0.07 1900.00 0.26 24.67 1899.97 -4.65 4.48 0 13 6.46 136.02 -4.65 2000.00 0.33 19.58 1999.97 -4.17 -4.17 4.68 80.0 6.26 131.72 127.48 6.10 2100.00 4.84 0.11 0.22 20.46 2099.97 -3.71-3.716.13 126.04 2200.00 0.11 146.85 2199.97 -3.61-3.61 4.96 0.30 2300.00 0.09 4.94 2299.97 -3.61 -3.61 5.02 0.19 6.18 125.71 2400.00 0.10 6.05 125.11 0.10 302.60 2399.97 -3.48-3.484.95 127.33 2500.00 0.29 192.76 2499.97 -3.68-3.68 4.82 0.33 6.06 2600.00 4.75 0.17 6.41 132 17 0.44 181.95 2599 96 -4.30-4.302700.00 0.22 4.76 0.22 6.82 135 75 174.88 -4.88 -4.88 2699.96 2800.00 7.01 136.94 0.06 162.98 2799.96 -5.12 -5.12 4.79 0.17 2900 00 0.05 14.49 2899.96 -5.13 -5.13 4.81 0.10 7.03 136.79 0.05 7.02 136.26 -5.07 4.85 3000.00 0.03 76.65 2999.96 -5.07 135.01 5.04 0.15 7.13 3100.00 82.00 -5.04 -5 04 0.19 3099 96 3200.00 0.20 43.55 3199.96 -4.90 -4.905.32 0.13 7.23 132.63 3300.00 5.68 0.29 7.20 127.97 0.48 34.69 3299.96 -4.43 -4.43 123.78 3400.00 0.14 61.90 3399.96 -4.03 -4.03 6.02 0.36 7.25 3500.00 0.07 346.38 3499.96 -3.91 -3.91 6.12 0.14 7.26 122.59 123.04 0.17 7.15 3600.00 0.13 244.34 3599.96 -3.90-3.90 5.99 125.71 3700.00 237.45 -4.08 5.68 0.15 7.00 0.28 3699.96 -4.08129.19 3750.00 243.12 3749.96 -4.30 -4.30 5.28 0.97 6.81 0.77