Form 3160-5 (August 1999)	DEP/ BURE	UNITED STATES ARTMENT OF THE INT AU OF LAND MANAC	TERIOR BEMENT	REC .IIIN	EVE	F O Expin	ORM APPROVED MB No. 1004-0135 es Jnovember 30, 2000	
	SUNDRY N	OTICES AND REPORT		S		N	M State VA 2965	
i	Do not use this abandoned well.	form for proposals to Use Form 3160-3 (APD)	drill or rei for such pr	enterilani Oposalis.C	on Field Office and Managem	6. If Indian, A	Ilottee or Tribe Name	
SUBI	MIT IN TRIPLIC	CATE – Other instru	ictions on	revers	e side	7. If Unit or O	CA/Agreement, Name and/or	
I. Type of Well Oil Well Gas Well Other						8. Well Name	and No.	
2. Name of Operation	or incoring and Pro-	duction Corp				PGA Unit 2	#4	
3a. Address			3b. Phone l	Phone No. (include area code)		30-045-35468		
7415 E. Main, I	7415 E. Main, Farmington, NM, 87402				505-327-4892		10. Field and Pool, or Exploratory Area	
4. Location of Wel	4. Location of Well (Footage, Sec., T.; R., M., or Survey Description)					Basin Fruit	and Coal	
7000 7 OL 4 00		, 72011, 71777						
·						San Juan	•	
<u></u>	12. CHECK APPE	ROPRIATE BOX(ES) TO I	NDICATE NA	ATURE OF	NOTICE, REPC	ORT, OR OTHE	ER DATA	
TYPE OF SU	JBMISSION	TYPE OF ACTION						
Notice of Inten	port	 Acidize Alter Casing Casing Repair Change Plans 	Deepen Fracture New Cou	Treat istruction Abandon	Production (Reclamation Recomplete	Start/Resume) 1 Abandon	Water Shut-Off Well Integrity	
Final Abandon	ment Notice	Convert to Injection	Plug Bac	k	Water Dispo	osal -		
determined that the This well	ne site is ready for final i	nspection.) land with a NM State mi	neral lease.	The appro	wed APD from i	the NMOCD (RCV OIL	s attached. D JUN 20 '13 CONS. DIV. DIST. 3	
14 Lhereby certify	that the foregoing is th	le and correct						
Name (Printed/Typed) Paul C. Thompson, P.E.			Title	Title President				
Signature Date Date			Jun	e 10, 2013				
<u> </u>		THIS SPACE	FOR FEDER	AL OR ST	ATE USE			
Approved by	<u> </u>	<u>- 11., - E., - E., - E., - E., - E.</u>	Ti	tle		Date	EITESTUR RECORD	
Conditions of approval, if any, are attached. Approval of this notice does not wa certify that the applicant holds legal or equitable title to those rights in the subje which would entitle the applicant to conduct operations thereon.			warrant or Ot ubject lease	fice		FAR	JUN 1 1 2013 ANGTON HELD OFFICE	
Title 18 U.S.C. Se false, fictitious or	ction 1001, make it a fraudulent statement	crime for any person know s or representations as to an	vingly and wil by matter with	fully to main its jurisd	ake to any departr	nent or agency	of the United States any	
(Instructions on reverse,)	N	MOCD F	\mathbf{V}				



Thompson Engineering and Production Corp. OPERATIONS PLAN PGA Unit 2 #4

o' Fyr

Date: March 13, 2013

I. Location: 1960' FSL & 660' FyL Sec 2 T23N R11W San Juan County, NM

Elev: GL 6609'

Field: Basin Fruitland Coal Surface: State **BLM** Minerals: State VA 2965

II. Geology: Surface formation _ San Jose

Α.	Formation Tops	Depths
	Ojo Alamo	145'
	Kirtland	530 ′
	Fruitland	675 ′
	Fruitland Coal	880′
	Pictured Cliffs	985 '
	Total Depth	1110′

Estimated depths of anticipated water, oil, gas, and other mineral bearing formations which are expected to be encountered: Water and gas - 880' and 985'.

- B. Logging Program: Induction/GR and density logs at TD.
- C. No over pressured zones are expected in this well. No H_2S zones will be penetrated in this well. Max. BHP = 600 psig.

III. Drilling

A. Contractor:

B. Mud Program:

The surface hole will be drilled with a fresh water mud.

The production hole will be drilled with a fresh water polymer mud. The weighting material will be drill solids or if conditions dictate, barite. The maximum mud.weight expected is 8.5 ppg.

C. Minimum Blowout Control Specifications:

Double ram type or annular type 2000 psi working pressure BOP with a rotating head. See the attached exhibit #1 for details on the BOP equipment. All ram type preventers and related equipment will be hydraulically tested at nipple-up and after any use under pressure to 1000 psi.

PGA Unit 2 #4 Operations Plan Pg #2

C. Cont.

The blind rams will be hydraulically activated and checked for operational readiness each time pipe is pulled out of the hole. All checks of the BOP stack and equipment will be noted on the daily drilling report. The BOP equipment will include a kelly cock, floor safety valve, and choke manifold all rated to 2000 psi.

IV. Materials

A. Casing Program:

Hole Size	Depth	Casing Size	Wt. & Grade
12-1/4"	120'	8-5/8″	24# J-55
7-7/8″	1110′	5-1/2"	15.5# J-55

B. Float Equipment:

a) Surface Casing: Three centralizers and an insert fiber baffle.

b) Production Casing: 5-1/2" cement guide shoe and self fill insert float collar. Place float one joint above shoe. Five centralizers spaced every other joint above shoe and five turbolizers every other joint from the top of the well.

V. Cementing:

Surface casing: 8-5/8'' - Use 85 sx (100.3 cu. ft.) of Cl "B" with $\frac{1}{4}$ #/sk celloflake and 2% CaCl₂ (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). 100% excess to circulate cement to surface. WOC 12 hours. Pressure test surface casing to 600 psi for 30 min.

Production Casing: 5-1/2" - Before cementing circulate hole with at least 1-1/2 hole volumes of mud. Precede cement with 10 bbls of fresh water. Lead with 120 sx (247 cu.ft) of Cl "B" with 2% metasilicate and ¼ #/sk celloflake. (Yield = 2.06 cu.ft./sk; slurry weight = 12.5 PPG). Tail with 75 sx (89 cu.ft.) of Cl "B" with ¼ #/sk celloflake (Yield = 1.18 cu. ft./sk; slurry weight = 15.6 PPG). Total cement volume is 336 cu.ft. (75% excess to circulate cement to surface).

Paul C. Thompson, P.E.

D&D Drilling Rig #1 BOP Testing Procedure.

Refer to the attached diagram for the bradenhead and BOP configuration. No mud cross will be utilized. The choke manifold will be connected to one side of the bradenhead. Connect the third-party testing company's test truck to the opposite side of the bradenhead.

Kill Line Valve:

Connect the test truck to the kill line valve and pressure test the valve to 250 psig low and 1,000 psig high. Test each pressure for 10 minutes.

Blind Rams:

Close the blind rams and open the bradenhead valve to the choke manifold. Have all three of the choke manifold valves closed. Pressure test the blind rams, casing, bradenhead, and choke manifold to 250 psig low and 1,000 psig high. Test each pressure for 30 minutes. A successful test will not have more than a 10% drop during the 30 minute test period.

If the test is successful proceed with the pipe ram test.

If the test is not successful, open the blind rams and install the test plug at the bottom of the bradenhead (the test plug seal is below the two valves on the bradenhead). Close the bradenhead valve to the choke manifold. Pressure test the blind rams and bradenhead to 250 psig low and 1,000 psig high. Open the bradenhead valve to the choke manifold and repeat the test. If theses test fail with no obvious leaks at either the blind rams or the choke manifold, remove the test plug and run a 7" packer into the first joint of casing and repeat both tests. Use caution when pulling the test plug if pressure is trapped below the plug. Recommend closing the pipe rams and opening the bradenhead valve to the choke manifold before trying to pull the test plug.

Pipe Rams:

Install the TIW valve on the bottom of one joint of drill pipe. Run the one joint into the well and close the pipe rams. Chain down the joint of drill pipe but leave the top of the pipe open. With the bradenhead valve open and the test truck still connected to the other side of the bradenhead, test the pipe rams to 250 psig low and 1,000 psig high. Hold each pressure for 30 min with no more than a 10% drop during the test period.

Upper Kelly Cock:

Install the TIW valve to the bottom of the Kelly. Install the test truck to the TIW Valve. With the TIW valve closed, pressure test the TIW valve to 250 psig low and 1,000 psig high for 10 minutes. Open and the TIW valve and close the upper Kelly cock. Pressure test the Kelly and upper Kelly cock to 250 psig low and 1,000 psig high. Hold each pressure for 10 minutes with 0% drop during the test.

"2M" BLOWOUT PREVENTER SYSTEM

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