Far: 3160-5 - (August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED OMB NO. 1004-0135 Expires: July 31, 2010

SUNDRY Do not use th abandoned we	5. Lease Serial No. NMNM120349 6. If Indian, Allottee of						
SUBMIT IN TR	7. If Unit or CA/Agreement, Name and/or No.						
Type of Well Gas Well ☐ Ot		8. Well Name and No. FROSTY FEDERAL COM 1					
Name of Operator MURCHISON OIL & GAS, IN	Contact:	CINDY COT jdmii.com	RELL		9. API Well No. 30-015-37003		
3a. Address 1100 MIRA VISTA BLVD. PLANO, TX 75093-4698	3b. Phone No. (include area code) Ph: 972-931-0700 Ext: 109 Fx: 972-931-0701			10. Field and Pool, or EMPIRE; WOLI	10. Field and Pool, or Exploratory EMPIRE; WOLFCAMP, NW		
4. Location of Well (Footage, Sec., Sec 26 T16S R27E NWNE 2)			1	11. County or Parish, and State EDDY COUNTY, NM		
12. CHECK APP	ROPRIATE BOX(ES) To	O INDICATE	NATURE OF	NOTICE	, REPORT, OR OTHE	R DATA	
TYPE OF SUBMISSION	V						
Subsequent Report Subsequent Report Final Abandonment Notice Final Abandonment Notice	nally or recomplete horizontally ork will be performed or provided operations. If the operation is abandonment Notices shall be fifinal inspection.) spectfully requests permissiting program as highlight	□ Nev □ Plug □ Plug □ Plug nt details, includ, give subsurface e the Bond No. o soults in a multip led only after all esion to change ed on the atta	cture Treat Construction g and Abandon g Back ing estimated startil locations and meas in file with BLM/BI le completion or rec requirements, incluse the previously inched.	Recompletion iding reclam	ue vertical depths of all pertid subsequent reports shall be in a new interval, a Form 310 nation, have been completed, d 9 5/8	Well Other Change PD eximate dura nent market e filed withi 60-4 shall b and the ope	s and zones. n 30 days e filed once erator has
Name (Printed/Typed) ARNOLD	Electronic Submission For MURCHIS	#97414 verified ON OIL & GAS	, INC., sent to the	he Carlsba	tion System ad NT OPERATIONS		
Signature (Electronic Submission)			Date 11/12/2	2010	APPROVE	D_	
	THIS SPACE F	OR FEDERA	L OR STATE	OFFICE			
Approved By			Title	, v.	NOV- 1 1- 2010	Da	e
Conditions of approval, if any, are attach certify that the applicant holds legal or ea which would entitle the applicant to cond	uitable title to those rights in the luct operations thereon.	ne subject lease	Office		WESLEY W. INGRAPETROLEUM ENGIN	Y	
Title 18 U.S.C. Section 1001 and Title 4	3 II S.C. Section 1212 make it	a crime for any r	erson knowingly ar	nd willfully	to make to any department of	or agency of	the United

** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED **

Murchison Oil & Gas, Inc. Frosty Federal Com #1

SHL: 2285' FNL & 330' FEL, Unit H BHL: 2135' FNL & 330' FWL, Unit E Section 26-T16S-R27E, Eddy Co., NM API # 30-015-37003

REVISED CASING AND CEMENTING PROGRAM

Hole Size	Casing Size	Wt./Ft.	Grade	Thread	Interval	Length	Condition
12-1/4"	9-5/8"	36.0#	J-55	ST&C	0'-1,400	1,400	New
8-3/4"	7"	26.0#	HC P-110	LT&C	0'-5,620'	5,620'	New
6-1/8"	4-1/2"	11.6#	HC P-110	BT&C	5,520'-10,746'	5,155'	New

MINIMUM CASING DESIGN FACTORS:

Burst = 1.0; Tensile Strength = 1.8; Collapse = 1.125
An 8-3/4" vertical pilot hole is planned to be drilled to 6,550' ± MD/TVD. Upon running CNL/LDT/CAL/GR/MSFL/HALS/GR open hole logs, we plan to run a combination 2-7/8" fiberglass tubing x 7" intermediate casing with bottom of the 7" steel casing to be landed at ≤5,620'± to isolate with cement and plugback the vertical hole for drilling the horizontal.

CEMENTING PROGRAM:

9.625" Intermediate Casing - Cementing Program

Cement lead with 500 sacks of Extenda Cem ™ System + additives with yield = 1.75 cu.ft./sack; followed by 220 sacks HalCem ™ System + additives with yield = 1.35 cu.ft./sack tail slurry; sufficient volume of cement will be pumped to ensure cement is circulated to surface.

7" Production Casing and Fiberglass Tubing - Cementing Program

Cement lead with 960 sacks of EconoCem ™ System + additives with yield = 1.83 cu.ft./sack, tail with 680 sacks HalCem ™ System + additives with yield = 1.00 cu.ft./sack; sufficient volume of cement will be pumped to ensure cement is circulated to surface. Will cement below 7" casing via 2-7/8" fiberglass tubing stinger to adequately plug back vertical pilot hole after logging and prior to drilling curve/horizontal section of well.

4.5" Production Liner - Cementing Program

Plan to utilize 4-1/2" 11.6# HCP-110 BTC Peak completion liner system from RSB packer @ 5,520' to TD of 10,746' MD. No cement required.

PRESSURE CONTROL EQUIPMENT:

1400' - 10746'

11" 3000# ram type preventers with one set blind rams and one set pipe rams and a 3000# annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head below 5500'.

A Kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor.

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After setting the 9 5/8" casing, the blowout preventers and related control equipment shall be pressure tested to 3000 psi and 1500 psi respectively. Any equipment failing to test satisfactorily shall be repaired or replaced. Results of the BOP test will be recorded in the Driller's Log.

The BOP's will be maintained ready for use until drilling operations are completed. Pipe and blind rams shall be activated each trip. Annular preventer shall be functionally operated at least weekly.

BOP drills will be conducted as necessary to assure that equipment is operational and each crew is properly trained to carry out emergency duties.

Accumulator shall maintain a pressure capacity reserve at all times to provide for the close-openclose sequence of the blind and pipe rams of the hydraulic preventers.

MUD PROGRAM

- 0' 1400' Fresh water / native mud. Wt. 8.4 to 8.6 ppg, vis 28-34 sec, Lime for pH control. Paper for seepage. Lost circulation may be encountered.
- 1400 6350' Cut brine. Wt. 8.4 8.8 ppg, vis 28-29 sec, No control water loss, lime for pH control.
- 6350' -10746' Mud up with XCD Polymer mud system. Wt. 9.0 9.5 ppg, Vis 32-40 sec, WL 8-10 cc.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run open-hole logs and casing, the viscosity and water loss may have to be adjusted to meet these needs.

Mud system monitoring equipment with derrick floor indicators and visual / audio alarms shall be installed and operative prior to drilling into the Wolfcamp formation. This equipment will remain in use until the production casing is run and cemented. Monitoring equipment shall consist of the following:

A recording pit level indicator.

A pit volume totalizer.

A flowline sensor.

TESTING, LOGGING AND CORING PROGRAM

- Testing program: None planned.
- B. Mud logging program. Two man unit from 1,400' to TD.
- C. Electric logging program: CNL/LDT/CAL/GR, MSFL/HALS/GR.
- D. Coring program: None planned.