OCD-HORRS

Form 3160-5 (April 2004)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

FORM APPROVED
OM B No 1004-0137
Fynires March 31, 2007

DEPARTMENTO		Expires Material, 2007
BUREAU OF LAND	MANAGEMENI	5 Lease Serial No
SUNDRY NOTICES AND	NM-058678	
Do not use this form for prope abandoned well. Use Form 316	osals to drill or to re-enter an 10-3 (APD) for such proposals.	6. If Indian, Allottee or Tribe Name
SUBMIT IN TRIPLICATE- Other	er instructions on reverse side.	7 If Unit or CA/Agreement, Name and/or No. GRM Unit
1 Type of Well Oil Well Gas Well Gas Well	Other	8. Well Name and No Grama Ridge Fed., 8817 JV-P, # 4
2. Name of Operator Enstor Grama Ridge Storage and	Transportation / 3b. Phone No (mclude area code)	9. API Well No.
3a Address 20329 State Highway 249, Suite 400, Houston, TX 77	30-025-21334 10. Field and Pool or Exploratory Area	
4 Location of Well (Footage, Sec., T., R., M., or Sinvey Desc	ription)	Grama Ridge, Morrow 11. County or Parish, State
UL-F-, Sec. 4, T22S, R34E 2310' FNL & 2310' FWL	,	Lea., NM
12. CHECK APPROPRIATE BOX	ES) TO INDICATE NATURE OF NOTICE,	REPORT, OR OTHER DATA
TYPE OF SUBMISSION	TYPE OF ACTION	- Income
Notice of Intent Acidize Acidize Alter Casing	Deepen Production Fracture Treat Reclamation	
Subsequent Report Casing Repair	New Construction Recomplete Plug and Abandon Temporarily	Other MIT
Final Abandonment Notice Convert to Inject		
following completion of the involved operations. If the testing has been completed. Final Abandonment Notice determined that the site is ready for final inspection.) Casing Test (Mechanical Integrity Test (MIT))	es shall be filed only after all requirements, including reconstruction performed September 15, 2009	lamation, have been completed, and the operator has
	A	CCEPTED FOR RECORD
SUBJECT TO LIKE APPROVAL BY STATE	RECEIVED	OCT 2 3 2009
APPROVADEL	OCT 2 8 2009	/s/ JD Whitlock Jr
	HOBBSOCD	BUREAU OF LAND MANAGEMENT
* Chart Not LEG	Ab/2 10-28-09	CARLSBAD FIELD OFFICE
14 I hereby certify that the foregoing is true and corr Name (Printed/Typed)		
Larry Brohmer	Title Direct	of or Engineering
Signature Jarry Jahmen THIS SPACE	$rac{\left Date ight }{\left Date ight } rac{\left Date ight }{\left Date ight }$ FOR FEDERAL OR STATE OFFICE	<u>/ 0 9</u> CE USE
I III STACE	TOTAL EDELIAL OR OTALE OF TR	
Approved by Conditions of approval, if any, are attached. Approval of	his notice does not warrant or	Date
certify that the applicant holds legal or equitable title to the which would entitle the applicant to conduct operations the	ose rights in the subject lease Office	

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.

COPY

S/N#8740

GRAMA

RIDGE





Grama # 4 MIT Procedure

Well Info			
RRC#		14,870'	TD
AFE#		13,245'	PBTD
API#	30 025 21334	Straight	Hole Geometry
TH I I	50 020 22001	12,886'-12,892'	
~		12,894'-12,903'	
Perforations		13,093'-13,111'	
Packer		12,795'	
EOT		12,817'	2.313 " Min ID
BHP		Est 3,800 psi	
		Est 3,000 psi	
Surface PSI		Est 190	
BHT		LSt I / U	

HISTORY:

The Grama #4 well is a working injection and withdraw well for the Grama gas storage field

SAFETY IS TOP PRIORITY

PPI IS COMMITTED TO A SAFE WORKING ENVIRONMENT FOR ALL COMPANY AND SERVICE PERSONNEL. Feedback on all issues is considered priority, especially issues involving safety. A safety meeting will be held prior to commencing each critical operation to provide all personnel with a safe working knowledge of the ensuing job particulars and potential hazards. Well control procedures should receive top priority with any concerns addressed immediately to the PPI Representative on site.

PROCEDURE:

Shut well in while performing MIT, The first MIT is for PPI/Enstor information only.

- 1. Close master valve.
- 2. Record tubing and casing pressures.
- 3. Bleed down 7-5/8" X 5-1/2" annulus if necessary.
- 4. Bleed down 10-3/4" X 7-5/8" surface annulus and have valve open while testing.

ENSTOR Grama Ridge # 4 MIT Procedure



- 5. Rig up XXX pumping services with 4 hour 1,000 psi chart recorder to 7-5/8" X 5-1/2" annulus.
- 6. Fill annulus with double inhibited 6% KCL water, make sure all air bubbles are out of the system.
- 7. Pressure up on annulus to 500 psi and record for 30 minutes.
- 8. Notify PPI/Enstor with results.
- 9. Bleed pressure off annulus.
- 10. RDMO XXX pumping services.
- 11. Hand well back to operations.



X:	d Co-ordinates		Target (X : Y : Z :	Co-ordinate	es		Well Profile Total Depth 14,870 ft RKB/GL: 15 ft Spud date: APla	# 30 025
Formati	ρπ Lithology	Approximate Depth RKB	Drilling Deviation	Depth	Perf	Logging	Casings and completion	Cei
			20"	330'			16" 65# J-55	2
			15"	5,711'			10 3/4" 51 & 55.5# J-55 & N-80	3' 1
			9 5/8"	11,895'	-	-	7"5/8 29.7 & 33.9# N-80 & P-110 TOL 11,638' 5"1/2 -20# Q-125 ANJO TBG Cross-over 11,552'	5 5
							3"1/2 9.2# L-80 UFJ TBG	
		ייטבטיי	.2/2 0		12,886 - 12,892'		20# P-110 MOD F PKR @ 12,795'	3 s
			4 0/4	PBTD 13,260' 14,199'	12,894 - 12,903' 13,093 - 13,111'		CIBP @ 13,500' capped with cement 3 1/2"	

ENSTON.

GRAMMA RIDGE STORAGE ATTRANSPORTATION LLC

Wildcat Measurement Service, Inc.

416 East Main Street
P.O. Box 1836
Artesia, New Mexico 88211
Office: (575)746-3481
Toll Free: 1-888-421-9453

Calibration Certificate

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Technician:	Ju/K	ee ony	Craig Sutherlar	iu -	