Form 3160-5
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014

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.

SUBMIT IN TRIPLICATE – *Other instructions on page 2.*

5. Lease Serial No.
NM-95620

6. If Indian, Allottee or Tribe Name

7. If Unit of CA/Agreement, Name and/or No.
Bennett Ranch Unit 28984

1. Type of Well
☐ Oil Well ☑ Gas Well ☐ Other

8. Well Name and No.
Bennett Ranch Unit #25-1

2. Name of Operator
Harvey E Yates Company (HEYCO)

9. API Well No.
30-035-20031

3a. Address
POBOX 1936
Roswell NM 88202

3b. Phone No. *(include area code)*.
575-623-6601

10. Field and Pool or Exploratory Area
~~Wildcat-96064~~ WILDCAT; CANYON 97800?

4. Location of Well *(Footage, Sec., T.,R.,M., or Survey Description)*
BRU #25-1 located in S25, T26S, R12E of Otero County, NM Unit G-1, 1980FNL & 1980 FEL

11. County or Parish, State
Otero County, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☑ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☑ Other Production Test
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

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 recomplete 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 must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

BLM Bond No. NMB000520/Surety Bond No. B004230

1. A known casing integrity issue exists, therefore HEYCO intends to run a 5 1/2 inch casing liner in the wellbore prior to performing a CIT.

2. CIT

3. Production flare test. See attached Production Test Procedure for specifics.

NM OIL CONSERVATION
ARTESIA DISTRICT
AUG 14 2014
RECEIVED

Accepted for record
NMOCD 8-14-2014

** NOTE: See attached "Conditions of Approval". 5-16-14

14. I hereby certify that the foregoing is true and correct. Name *(Printed/Typed)*
Catherine Green

Title Regulatory Analyst

Signature Catherine Green

Date 04/03/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

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

Pending BLM approvals will subsequently be reviewed and scanned

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 m... fictitious or fraudulent statements or representations as to any matter within its jurisdiction. ...States any false,

(Instructions on page 2)

NMNM71526
NMNM94469A
3100 (L0310)

MAY 2 0 2014

CERTIFIED--RETURN RECEIPT REQUESTED
7004 1350 0002 8394 3791

DECISION

Harvey E. Yates Company :
Attention: Ms. Catherine Green :
P.O. Box 1933 :
Roswell, NM 88202 :

SUNDRY NOTICE REQUESTS
MECHANICAL INTEGRITY AND FLOW TESTS APPROVED

In April 2014, Harvey E. Yates Company (HEYCO) submitted Sundry Notices for the BRU #1-Y and the BRU #25-1 wells located on the Bennett Ranch Unit in Otero County at:

New Mexico Principal Meridian, New Mexico
T. 26 S., R. 12 E.,
secs. 14 and 25.

The purpose of the sundries is to carry out a Mechanical Integrity Test (MIT) and 30 day production flow test on each well. The sundries are approved subject to all terms and conditions of the existing leases and the Conditions of Approval attached to the sundries.

REVIEW AND APPEAL RIGHTS

A person contesting an order of the authorized office or violation must request a State Director Review of the Order or Incident of Noncompliance. This request must be filed within 20 working days of receipt of the Incident of Noncompliance with the **Bureau of Land Management, New Mexico State Office, 301 Dinosaur Trail, Santa Fe, New Mexico 87508** (see 43 CFR 3165.3). The State Director Review decision may be appealed to the Interior Board of Lands Appeals, 801 North Quincy Street, MS 300-QC, Arlington, Virginia 22203 (see 43CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

/s/ Bill Childress

Bill Childress
District Manager

L0310:ESeum:cp:5/20/2014:x4375:HEYCO.NM71526.NM94469A.SundryReq.Dec

Bennett Ranch Unit CIT and 30 Day Production Test Procedure

Bennett Ranch Unit #1-Y well

Bennett Ranch Unite #25-1 well

CIT, Step Rate Production Test, Bottom Hole Pressure Survey Procedure

Day #	Task
Day 1	Mobilize equipment to location and set up. Safety meeting. All personnel to wear hard hats, steel toed boots, fire retardant clothing, and observe HEYCO safety procedures.
Day 1	Rig up equipment for CIT. Perform 30 minute test while utilizing chart to capture pressure data.
Day 1	If well passes test, then continue with production test procedure.
Day 1	Rig up flow testing equipment with flare downwind. Flow testing will be manned 24 hours utilizing 2- man crews on each location.
Day 1	Utilize a manifold choke assembly with positive fixed chokes- do not use adjustable chokes.
Day 1	Appropriate human support services will be required to accommodate 24 hour operations.
Day 2	Run in hole with bottom hole pressure recorder. Set data recorder for 3 second data capture. Be sure to have enough memory for 40+ days of data recording on BHP, surface and flow measurement equipment.
Day 2	Open well on minimal choke for first flow period. Record gas flow rates and surface tubing pressure using 3 second data capture rates.
Day 2	Data and reports to be transmitted to HEYCO at 6am and 3pm at a minimum every day.
Day 2	All personnel to wear hard hats, steel toed boots, fire retardant clothing, and observe safety procedures.
Day 2	Check worksite including gauges.
Day 8	Change choke setting. Actual choke settings and duration of each interval will be determined from actual production rates and pressures. Collect natural gas sample.
Day 14	Change choke setting. Actual choke settings and duration of each interval will be determined from actual production rates and pressures.
Day 20	Change choke setting. Actual choke settings and duration of each interval will be determined from actual production rates and pressures.
Day 26	Change choke setting. Actual choke settings and duration of each interval will be determined from actual production rates and pressures.
Day 31	Collect natural gas sample. Shut-in well for a minimum 7 days for a pressure build up test.
Day 32	Rig down and move off flow test equipment and flare.
Day 32	Shut-in and secure well. Clean location prior to complete de-mob.
Day 38	Retrieve bottom hole pressure gauges.
Subsequent	Assemble and evaluate all data.
	Prepare report and determine next steps.
	Report to be shared confidentially with BLM.

OBJECTIVE: **PROCEDURE TO REPAIR CASING LEAK BY RUNNING 5 1/2" LINER**
WELL: Bennett Ranch Unit 25 # 1
PROPERTY #: 089500-001
API #: 30-035-20031
LOCATION: 1,980' FNL & 1,980' FEL, Sec. G-25, T26S, R12E, Otero Co., NM
LATITUDE: 32.014923°
LONGITUDE: -105.665681°

Surface Csg: 11 jts. 13 3/8", 48#, H-40 STC. SET @ 492'. Cap = 0.15704 bbl/ft
Production Csg: 69 jts. 9 5/8", 36#, STC. SET @ 3,087'. Cap = 0.07730 bbl/ft
PBTD: CIBP @ 2,750' (12/05/01)
PERFS: 2,255' - 2,268' (157 HLS)
TBG: 70 jts. 2 7/8", 6.5#, N-80 EUE. Cap = 0.005794 bbl/ft, Ann Vol = 0.06927 bbl/ft

QTY	DESCRIPTION	LENGTH	TTL DPTH
66	JTS 2 7/8" TBG	2,107.00	2,107
1	6' X 2 7/8" PUP JT	6.00	2,113
1	JT 2 7/8" TBG	31.93	2,145
1	SN @ 2,145'	1.00	2,146
1	XO	1.00	2,147
1	9 5/8" ARROWSET PKR @ 2,147'	4.00	2,151
1	XO	1.00	2,152
2	JTS 2 7/8" TBG	63.85	2,216
1	DEB SUB	3.10	2,219
1	JT 2 7/8" TBG	31.93	2,251
1	XO	1.00	2,252
1	EXT FIRING HEAD	3.10	2,255
13	7" TCP GUNS (2,255' - 2,268')	13.00	2,268

PROCEDURE:

1	MIRU PU/RIG & EQPT.
2	KILL WELL W/ BRINE
	SIWHP = 450 PSI; SIBHP ~ 500 PSI
3	ND WH, NU BOPE
4	RELEASE 9 5/8" PKR
5	POOH W/ 2 7/8" TBG & PKR
6	MIRU SWIVEL & REVERSE UNIT
7	RIH W/ BIT, SCRAPER, & 2 7/8" TBG TO +/- 2,300', POOH.
8	RIH W/ 9 5/8" PLUG AND PKR
	SET CIBP @ +/- **2,240'** (*PERFS @ 2,255' - 68'*)
	PUH, SET PKR @ +/- **2,200'**
	PRESSURE TEST PLUG, POOH W/ PKR
9	MIRU CASING CREW
	CSG CREW TO PROVIDE SLIPS, ELEVATORS & TONGS FOR 5 ½" CASING
10	RIH W/ 5 ½", 17#, J-55 LTC CASING.
	SET @ +/- **2,200'** (~ *54 JTS*)
11	CMT W/ **63** SX "C" + 2% CaCl
	WOC 12 HR
12	RIH W/ BIT, DC's & TBG. TAG AND RECORD TOC.
13	DO SHOE, MIT CSG
14	DO CIBP, CIRC HOLE CLEAN. TOOH, LD.
15	RIH W/ 5 ½" PKR, SN, & 2 7/8" TBG. SET PKR @ +/- **2,000'**.
16	ND BOPE, NU WH.
17	SECURE WELL, RDMO.

Bennett Ranch Unit 25 #1

CASING LEAK REPAIR - CASING & CEMENT CALCULATIONS

DIA. (IN)	WEIGHT (LB/FT)	GRADE	THREAD	COLLAPSE (PSI)	INTERNAL YEILD PRESS. (PSI)	BODY YEILD (LBS)	JOINT YEILD (LBS)
5 1/2	17	J-55	LT&C	4,910	5,320	273,000	247,000

SETTING DEPTH:	2,200'	
TOP THREAD LOAD:	37,400 LBS	OK
MAX ANTICIPATED PRESS.:	3,000 PSI	OK
DESIRED TOP OF CEMENT:	2,000'	

	OD (IN)	WEIGHT (LB/FT)	ID (IN)	ANNULAR DIMENSIONS:	GALLONS / FOOT	FEET / GALLON	BARRELS / FOOT	FEET / BARREL	CUBIC FEET / FOOT	FEET / CUBIC FOOT
OUTER CSG	9 5/8	36	8.921		2.0128	0.4968	0.0479	20.8661	0.2691	3.7164
INNER CSG	5 1/2	17	4.892							

VOL. CALC.	DEPTH	TOC	CMT HGT	GALLONS	BARRELS	CUBIC FEET
	2,200'	2,000'	200'	403	10	54

CMT Calc.	WATER (GAL/SK)	SLURRY DENSITY (PPG)	YIELD (CU.FT./SK)	COMPRESSIVE STRENGTH (PSI-12HR)	SX CMT REQUIRED	EXCESS (%)	SX CMT TO PUMP
CLASS "C" + 2% CaCl	6.3	14.8	1.32	1,285	40.8	50.00%	61.2
						100.00%	81.5

Bennett Ranch Unit 25 #1
Wildcat (PROP #089500-001)
API #30-035-20031 Otero Cnty
1980' FNL & 1980' FEL
Unit G, Sec 25, T26S, R12E
Fed Lse #NMNM 95820
5028' GL (17' kb)
Harvey E. Yates Company

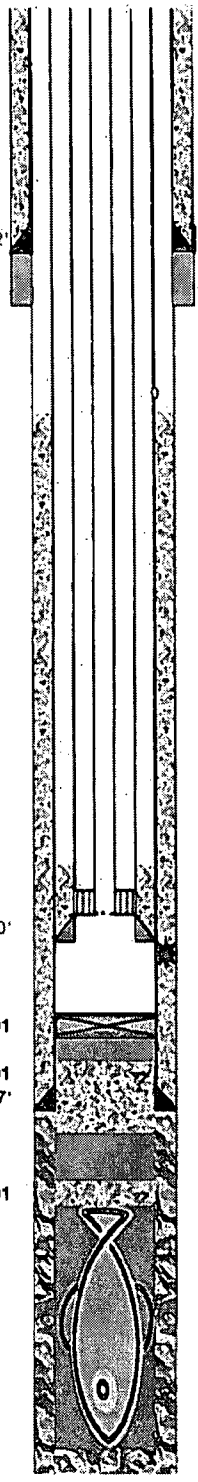
prepared by J. Atkinson
updated by LMO (04/21/14)
DRAWING NOT TO SCALE.

Wellbore Status as of : 04/15/14

Spud: 10/27/2001
TD Date: 11/16/2001
TD: 5671'
PBTD: 4597' 11/25/2001 (original)
PBTD: 2750' 12/05/2001 (current)
Completed: 12/16/2001

Tubing configuration:
As of: 12-08-2001

DESCRIPTION	DEPTH
1 jts 2 7/8" 6.5# J-55	
8' Sub	
65 jts	
6' Marker jt	
1 jt	
SN	2,000'
5 1/2" PKR	2,004'



Surface Casing:			
Bit size	17 1/2"		892'
11/03/2001	11 jts. 13 ⅜, 48# H-40 STC. Set @ 492' Cmtd w/ 400 sx 65/35 C/POZ Tail w/ 350 sx "C" + 2% CaCl. TOC-SURF, Circ 490 sx		
Intermediate Casing:			
Bit size	12 1/4"		3,087'
11/03/2001	69 jts. 9 5/8", 36#, STC. Set @ 3,087' Cmtd w/ 800 sx 65/35 POZ Tail w/ 350 sx "C" + 2% CaCl. TOC-SURF, Circ 300 sx		
Production Casing			
Bit size	7 7/8"		5,671'
5 1/2"			
Weight	Grad/Conn	Grad/Conn	Set @
17	J-55		2,200'

Proposed
BRU #25-1

Casing diagram

(Canyon)

Bennett Ranch Unit 25 #1
Wildcat (PROP #089500-001)
API #30-035-20031 Otero Cnty
1980' FNL & 1980' FEL
Unit G, Sec 25, T26S, R12E
Fed Lse #NMNM 95620
5028' GL (17' kb)
Harvey E. Yates Company

prepared by J. Atkinson
updated by LMO (04/21/14)
DRAWING NOT TO SCALE.

Wellbore Status as of : 04/15/14

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TD: 5671'
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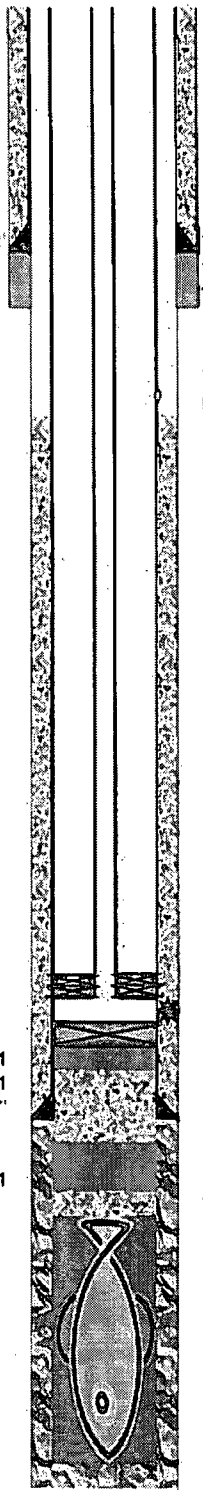
Tubing configuration:
As of: 12-08-2001

DESCRIPTION	DEPTH
1 jts 2 7/8" 6.5# J-55	
8' Sub	
66 jts	
6' Marker jt	
1 jt	
SN	2,145'
X-Over	
9 5/8" Arrow set PKR	2,147'
X-Over	
2 jts	
Debris sub	
1 jt	
X-Over	
Firing head	
TCP Gun	



40' Conductor cmtd to surf.

13 ⅜" SURF. CSG.
17 1/2" HOLE
TD - 892'

****Fluid level during CBL-560'**
Hole in 9 5/8" csg @ 611'

Surface Casing:
Bit size 17 1/2" 892'
11/03/2001 11 jts. 13 ⅜, 48# H-40 STC. Set @ 492'
Cmtd w/ 400 sx 65/35 C/POZ
Tail w/ 350 sx "C" + 2% CaCl.
TOC-SURF, Circ 490 sx

Intermediate Casing:
Bit size 12 1/4" 3,087'
11/03/2001 69 jts. 9 5/8", 36#, STC. Set @ 3,087'
Cmtd w/ 800 sx 65/35 POZ
Tail w/ 350 sx "C" + 2% CaCl.
TOC-SURF, Circ 300 sx

Production Casing
Bit size 7 7/8" 5,671'

Weight	Grad/Conn	Grad/Conn	Set @

Current
BRU #25-1
casing diagram

12/7/2001 Perf 2255'-2268' 12 spf (1
Natural Completion. GTS

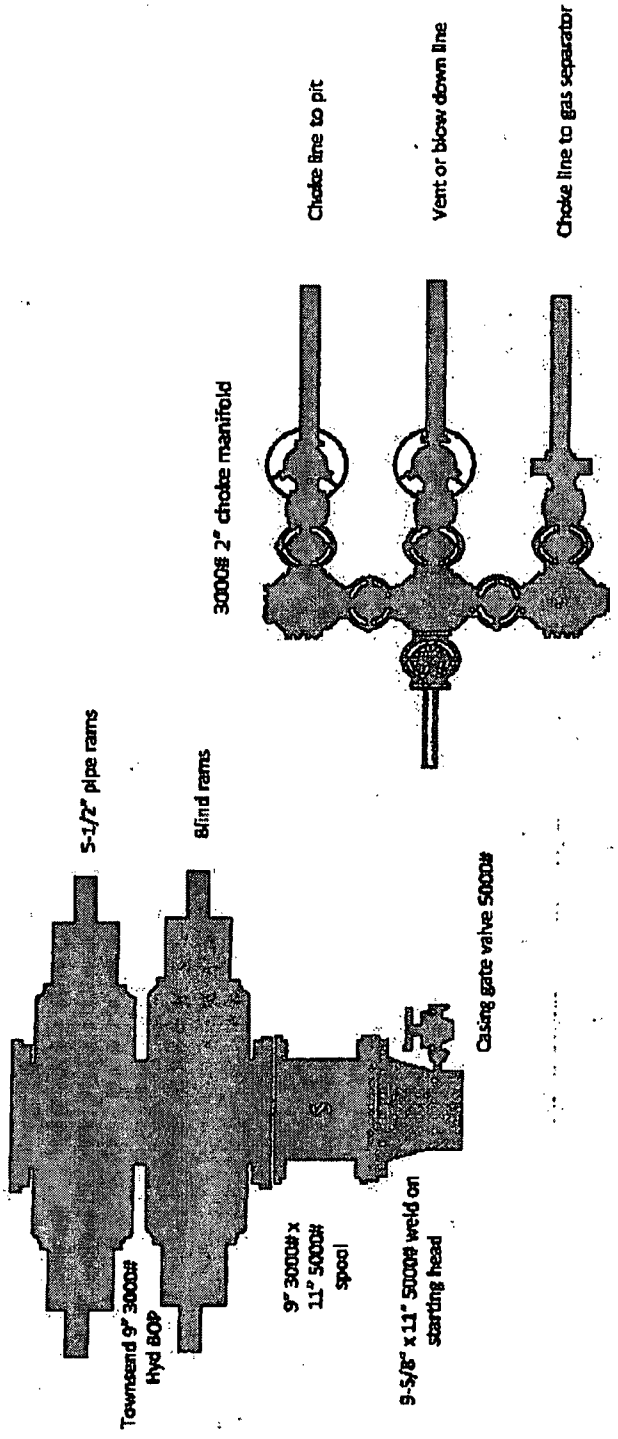
12 1/4" HOLE
9 ⅝" CSG. (CIRC. 300 SX CMT)

TOF-4597'
Fish Detail: Bit, 22-DC's, Jar Pin

CIBP @ 2750' on 12-05-01
Cmt plug @ 2855'-3427' 11-26-01
3,087'

Cmt plug @ 4227'-4597' 11-25-01

Heyco
Bennett Ranch 25-1



Bureau of Land Management

CONDITIONS OF APPROVAL FOR
SUNDRY NOTICE – NOTICE OF INTENT

Type of Action: Casing Repair, MIT, and Production Test ✓

Harvey E. Yates Company (HEYCO)
Bennett Ranch Unit #25-1 Well
API No. 30-035-0031
SWNE, Sec. 25, T26S, R12E, Otero County, NM Unit G-1
Bennett Ranch Unit 28984
Federal Lease NMNM095620 (At proposed production zone)
Case Number (PA): NMNM094469B

Operations Requirements

1. Approval of this Sundry Notice (Form 3160-5) 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. Neither does BLM approval alleviate the operator from the requirements of obtaining any other necessary state or federal permits prior to conducting operations.
2. The operator is responsible for ensuring conformance to the approved SN and **Conditions of Approval (COA)** by the subcontractors. **A copy of the approved SN and COAs must be onsite during well operations.**
3. Blow Out Prevention Equipment (BOPE) tests must be performed by a test pump with a chart recorder. Tests will be performed using a clear fluid. The tests must be recorded in the daily report record and will include a low pressure test of **250 psi** held for a minimum ten minutes and **a high pressure test of 1,000 psi, per OOGO No. 2, III. A. 2. i.,** and held for a minimum of ten minutes. The 3M BOPE system will be treated as a 2M BOPE system and no remote BOPE controls are required **(per OOGO No. 2, III. A. 2. h.)**.
4. Casing repair (of 9-5/8" casing leak at 611' MD) operations must also comply with the requirements of **Onshore Oil and Gas Order (OOGO) No. 2**. Deviations from the approved SN-NOI require **prior** approval utilizing Form 3160-5, Sundry Notices and Reports on Wells. It is preferred that HEYCO repair the 9-5/8" casing leak prior to running 5-1/2" casing. Running 5-1/2" casing does not constitute repair of the 9-5/8" casing leak, only defers this action. HEYCO is required to complete repair of the 9-5/8" casing prior to well abandonment or at any time when significant annular pressure in the 5-1/2" x 9-5/8" casing annulus occurs.
5. Due to the continuing leak in the 9-5/8" casing at 611' into the 5-/1/2" x 9-5/8" casing annulus, you will be required to monitor the annular pressure between these two casing strings on a monthly basis and report the pressures to the BLM Las Cruces Field Office. Should the annular pressure increase by 50 psi, further casing repair action may be required. BLM would prefer that this annular pressure monitoring be continuous through the use of SCADA or Well Keeper Inc. system. Manual monitoring and reporting on a monthly basis will be initially acceptable.
6. The new 5-1/2" casing string will be required to be tested to 1,500 psi per **OOGO No. 2, III. B. 1. h.** Test shall be for 30 minutes with pressure decline of not more that 10% (or 150 psi) bleed off.

Casing pressure test must be witnessed by a BLM Inspector (contact Paul Swartz and the Carlsbad PET contact numbers).

7. A Mechanical Integrity Test (MIT) will be performed on the 5-1/2" production casing down to a depth of 50 feet above the perforations. The production casing will be pressure tested to 500 psi. The casing shall be capable of holding this pressure for at least 30 minutes with less than 10% (50 psi) bleed off. If the pressure test indicates a problem exists, a remedial plan and time frame for remediation shall be submitted to the Las Cruces Field Office within sixty (60) days of the Mechanical Integrity Test. This MIT must be witnessed by a BLM Inspector (contact Paul Swartz and the Carlsbad PET contact numbers).
8. Upon a successful MIT, the well will be production tested as per the approved SN-NOI. Volumes of natural gas flared during the production testing operations and flaring duration time will be in compliance with Notices to Lessees and Operators of Onshore Federal and Indian Oil and gas Leases (NTL-4A), Royalty or Compensation for Oil and Gas Lost, Section III., C. and reported on monthly OGORs (Oil and Gas Operations Report, Forms ONRR-4054-A, -B, and –C, per NTL-4A, Section V. A test period exceeding 30 days can be approved by the BLM Authorized Officer if previously authorized by the appropriate State regulatory agency. This MIT must be witnessed by a BLM Inspector (contact Paul Swartz and the Carlsbad PET contact numbers).
9. This well work shall commence within 60 days from the approval date of this **Sundry Notice – Notice of Intent** as ordered by the Authorized Officer.

Surface Use Plan of Operations Requirements

The following surface use conditions of approval are in addition to all stipulations associated with your Federal Lease NMNM 095620 (surface location):

1. All spills or leakages of oil, gas, produced water, toxic liquids, or waste material, blowouts, fires, personal injuries or fatalities shall be reported by the operator to BLM in accordance with regulations and as prescribed in NTL-3A orders **(per 43 CFR 3162.5-1 (c)).**
2. Surface disturbance beyond the existing pad shall have prior approval with appropriate Sundry Notice – Notice of Intent (Form 3160-5).
3. The operator shall regularly monitor and promptly control noxious weeds and other undesirable plant species.
4. All waste (i.e. trash, salts, chemicals, sewage, gray water, etc.) created as a result of work over operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on location during extended well operations or any crew-intensive operations.
5. Following the completion of operations on the well, the pad must be made level with the use of gravel and **cleared of all debris.**
6 To reduce areas of disturbance not needed for long-term operations, interim reclamation will be initiated for the area when well testing operations have concluded.

Reporting Requirements

1. Operator will submit a revised Sundry Notice (Form 3160-5) for approval prior to deviating from this approved SN-NOI. Oral approval by phone may be given should circumstances warrant; however, this does not waive the written SN requirement which is to be submitted within 5 business days of receiving verbal approval.
2. Subsequent well operations will require prior approval before being performed utilizing **Sundry Notices and Reports on Wells**, Notice of Intent (Form 3160-5).
3. Within 30 days of completion of operations, a Subsequent Report of actual operations performed under the original SN-NOI will be filed on Form 3160-5, **Sundry Notices and Reports on Wells**.
4. Any undesirable events are subject to the requirements of NTL-3A: Reporting of Undesirable Events.
5. Flaring of gas during production testing operations is subject to the requirements of NTL-4A: Royalty or Compensation for Oil and Gas Lost.
6. Any solid and/or liquid wastes resulting from the proposed activity shall be properly disposed of as per Onshore Oil and Gas Order No. 7, Disposal of Produced Waters.

Notification Requirements:

1. All notifications must be reported verbally to **all** of the contacts listed below:

Name	Position	Work Phone	Home Phone
Edward Seum	Supvr, LCFO, Lands/Min.	575-525-4313	
***Tom Zelenka**	Pet. Engineer/ Pet. Eng. Tech	505-954-2110	303-807-3161C
***Wesley Ingram**	Pet. Engineer	575-234-5982	
Carlsbad FO	Pet. Eng. Tech		575-361-2822(C)

2. Notify those (with the *) above verbally or in writing prior to any change to the **approved Sundry Notice.**
3. Notify Carlsbad FO (PET) verbally 24 hours in advance of conducting all **BOPE tests.**
4. Notify Paul Swartz and Carlsbad FO (PET) verbally at least 24 hours in advance of conducting **casing and cementing operations**.
5. Notify Paul Swartz and the Carlsbad FO verbally at least 24 hours in advance of conducting **Casing Pressure Test.**
6. Notify Paul Swartz and the Carlsbad FO at least 24 hours in advance of conducting **MIT operations.**
7. Notify all of the above verbally at least 24 hours in advance of conducting **production testing.**

T.J. Zelenka — 5.16.14

Thomas J. Zelenka — **Date**
BLM, Petroleum Engineer