Form 3160-5
(February 2005)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB NO. 1004-0135
EXPIRES: March 31, 2007

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

1a. Type of Well ☑ Oil Well ☐ Gas Well ☐ Other	5. Lease Serial No. **NMNM-0121121**
	6. If Indian, Allottee or Tribe Name
	7. Unit or CA Agreement Name and No.
	8. Well Name and No. **Cotton Draw Unit 110**
2. Name of Operator **DEVON ENERGY PRODUCTION COMPANY, LP**	9. API Well No. **30-015-36406**
3. Address and Telephone No. 20 N. Broadway, Oklahoma City, Ok 73102-8260 405-235-3611	10. Field and Pool, or Exploratory **Paduca; Delaware**
4. Location of Well (Report location clearly and in accordance with Federal requirements)* 660' FSL 660' FWL M SEC 25 T24S R31E BHL: 330 FNL & 660 FWL D SEC 25 T24S R31E	11. County or Parish State Eddy NM

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

TYPE OS 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
	☑ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work and approximate duration thereof. If the proposal deepen directionally or recomplete horizontally, give subsurface location 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 shall 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 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirement, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection)

Devon Energy Production Company, L. P. respectfully request to make the following changes in the original APD.

The production hole will be 8-3/4" Instead of 8-1/2". See attached cementing program.

Pressure Control Equipment:
The BOP system used to drill the intermediate hole will consist of a 13-5/8" 3M Annular preventer. The BOP system will be tested as a **2M system** prior to drilling out the surface casing shoe.

The BOP system used to drill the production hole will consist of an 11" 5M Double Ram and Annular preventer. The BOP system will be tested as a **3M system** prior to drilling out the intermediate casing shoe. See attached BOP and choke manifold schematics

RECEIVED
OCT 19 2010
NMOCD ARTESIA

14. I hereby certify that the foregoing is true and correct

Signed _____ Name **Judy A. Barnett X8699** Title Regulatory Analyst Date 9/15/2010

(This space for Federal or State Office use)

Approved by _____ Title _____ Date _____
Conditions of approval, if any:

~~Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter~~ within its jurisdiction.

*See Instruction on Reverse Side

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Accepted for record
NMOCD

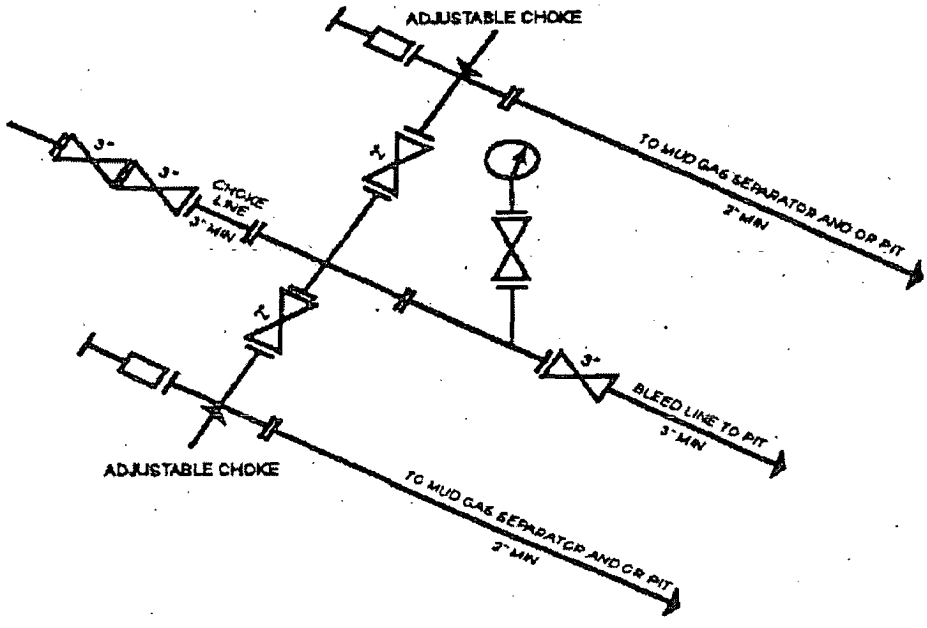
APPROVED
Petroleum Engineer
OCT 15 2010
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

COTTON DRAW UNIT 110H
API# 30-015-36406
9/15/10

Cementing Program

5-1/2" Production	**1st Stage** **Lead:** 500 sacks (35:65) Poz (Fly Ash):Class H Cement + 5% bwow Sodium Chloride + 0.3% bwoc CD-32 + 0.5% bwoc FL-25 + 2% bwoc Bentonite + 0.6% bwoc Sodium Metasilicate + 0.5% bwoc FL-52A + 102.5% Fresh Water, 12.5 ppg **Yield**: 2.01 cf/sk **Tail:** 1,300 sacks (50:50) Poz (Fly Ash):Class H Cement + 1% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125 lbs/sack Cello Flake + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 58.3% Fresh Water, 14.2 ppg **Yield**: 1.28 cf/sk **DV TOOL at ~6,000'** **2nd Stage** **Lead**: 400 sacks Class C Cement + 1% bwow Calcium Chloride + 0.125 lbs/sack Cello Flake + 157.8% Fresh Water, 11.4 ppg **Yield**: 2.89 cf/sk **TOC @ 3,850'** **Tail:** 100 sacks (60:40) Poz (Fly Ash):Class C Cement + 1% bwow Sodium Chloride + 0.2% bwoc R-3 + 0.125 lbs/sack Cello Flake + 0.5% bwoc BA-10A + 4% bwoc MPA-5 + 63.2% Fresh Water, 13.8 ppg **Yield**: 1.37 cf/sk

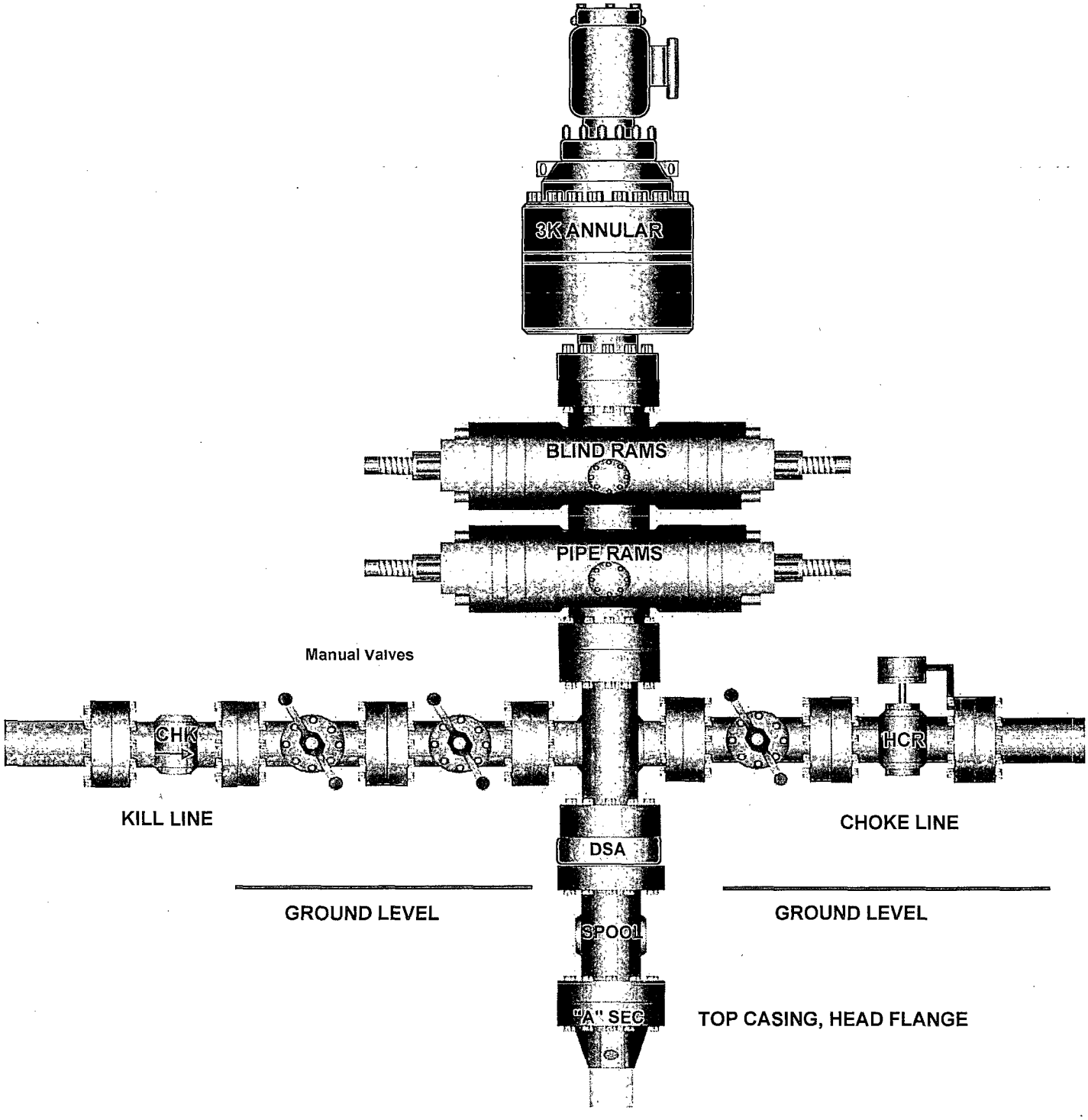
ACTUAL CEMENT VOLUMES WILL BE ADJUSTED BASED ON FLUID CALIPER AND CALIPER LOG DATA.



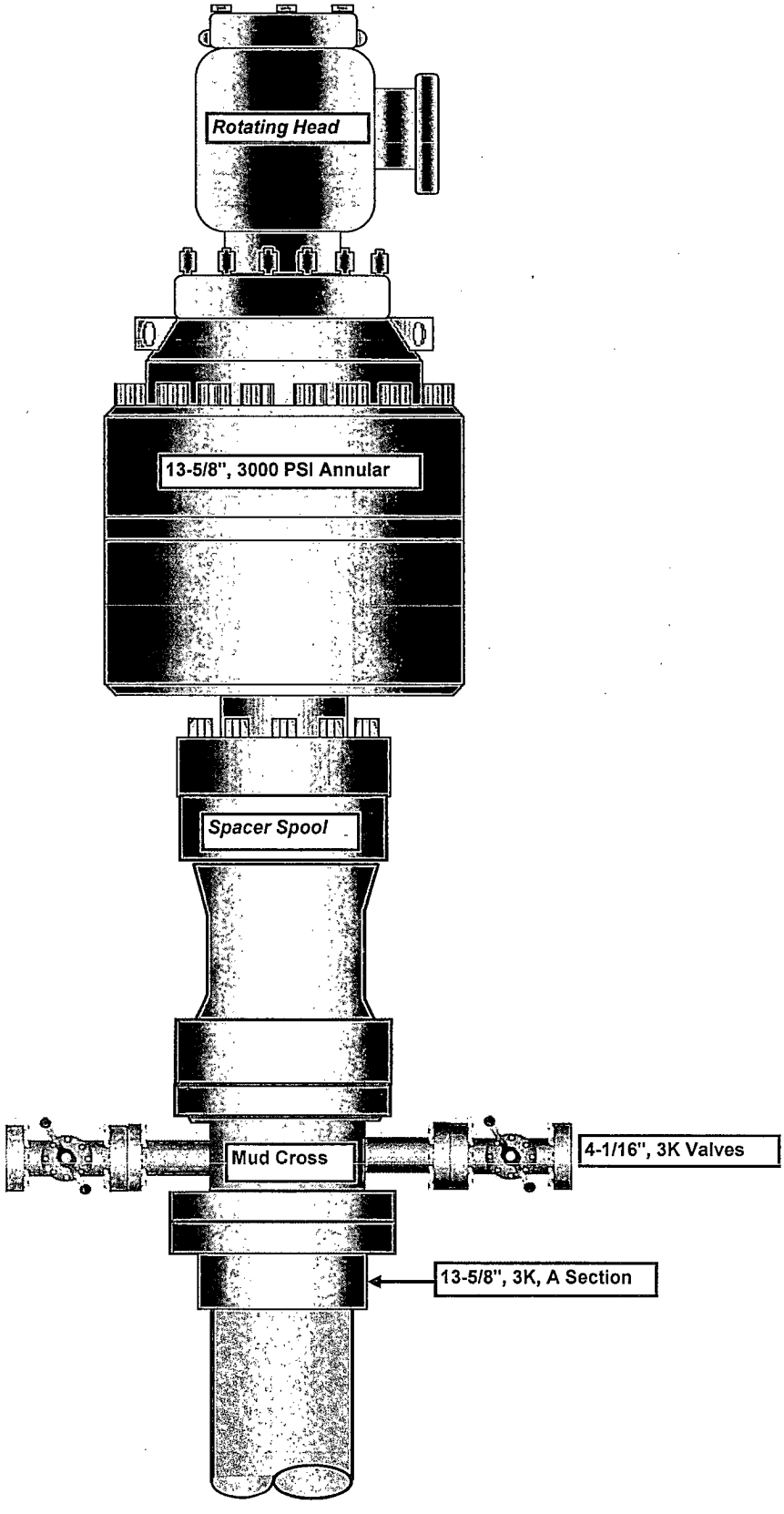
3M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION OF CHOKES MAY VARY

[54 FR 39528, Sept. 27, 1989]

11" x 3,000 psi BOP Stack



13-5/8" 3K Annular



13 3/8 surface csg in a 17 1/2 inch hole.

Segment	#/ft	Grade	Coupling	Joint	Design Factors Collapse	Burst	SURFACE Length	Weight
"A"	48.00	H 40	ST&C	7.45	1.83	0.77	900	43,200
"B"							**0**	**0**
w/8.4#/g mud, 30min Sfc Csg Test psig: 818			Tail Cmt	does not	circ to sfc.	Totals:	900	43,200

Comparison of Proposed to Minimum Required Cement Volumes

Hole Size	Annular Volume	Proposed Sx Cmt	CuFt Cmt Proposed	Min Cu Ft	Excess % Cmt	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
17 1/2	0.6946	**865**	1414	**673**	110	**9.00**	1303	**2M**	1.56

Frac gradient is 1.92-safety factor is okay for burst.

9 5/8 casing inside the 13 3/8 casing.

Segment	#/ft	Grade	Coupling	Joint	Design Factors Collapse	Burst	INTERMEDIATE Length	Weight
"A"	36.00	J 55	LT&C	2.80	1.30	0.91	3,000	108,000
"B"	**40.00**	**J 55**	**LT&C**	**9.63**	**1.14**	**1.02**	**1,350**	**54,000**
"C"							**0**	**0**
"D"							**0**	**0**
w/8.4#/g mud, 30min Sfc Csg Test psig: 867						Totals:	4,350	162,000

The cement volume(s) proposed may achieve a top 0 feet from surface.

Hole Size	Annular Volume	Proposed Sx Cmt	CuFt Cmt Proposed	Min Cu Ft	Excess % Cmt	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
12 1/4	0.3132	**1490**	2842	**1438**	98	**10.00**	2056	**3M**	0.81

Frac gradient is 1.17-safety factor is okay for burst.

5 1/2 casing inside the 9 5/8

Segment	#/ft	Grade	Coupling	Joint	Design Factors Collapse	Burst	PRODUCTION Length	Weight
"A"	17.00	N 80	LT&C	2.46	1.76	1.99	7,650	130,050
"B"	**17.00**	**N 80**	**BUTT**	**2.86**	**1.44**	**1.99**	**4,700**	**79,900**
"C"							0	0
"D"							**0**	**0**
w/8.4#/g mud, 30min Sfc Csg Test psig: 1,683						Totals:	12,350	209,950

B Segment Design Factors would be: 35.65 1.62 if it were a vertical wellbore.

The cement volume(s) proposed may achieve a top 3850 feet from surface.

Hole Size	Annular Volume	Proposed Sx Cmt	CuFt Cmt Proposed	Min Cu Ft	Excess DVT Cmt	Drilling Mud Wt	Calc MASP	Req'd BOPE	Min Dist Hole-Cplg
8 3/4	0.2526	**2300**	3962	**2160**	O K	**9.00**			1.35

Sundry to change hole size from 8-1/2" to 8-3/4". New cmt program. DV tool @ 6000', 1st Stage - 66% Excess and 2nd Stage - 135% Excess.

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Devon Energy Production Company, LP**
LEASE NO.:	**NMNM012121**
WELL NAME & NO.:	**Cotton Draw Unit 110**
SURFACE HOLE FOOTAGE:	**660' FSL & 660' FWL**
BOTTOM HOLE FOOTAGE	**330' FNL & 660' FWL**
LOCATION:	**Section 25, T. 24 S., R 31 E., NMPM**
COUNTY:	**Eddy County, New Mexico**

I. DRILLING

A. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. **Variance approved to use flex line from BOP to choke manifold. Check condition of 4 1/16" flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends. Serial number 34128, safety clamps not required.**

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

    a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.

4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** intermediate casing shoe shall be **3000 (3M)** psi.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips or where the float does not hold,

the minimum wait time before cut-off is eight hours after bumping the plug or when the cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. BOP/BOPE testing can begin after the above conditions are satisfied.

b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) prior to initiating the test.

c. The results of the test shall be reported to the appropriate BLM office.

d. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

e. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.

RGH 101510