

ATS-10-783

OCD-ARTESIA

Form 3160-3
(August 2007)

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMLC-047800 & NMNM-106718 <i>BSH</i>
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Nadel and Gussman HEYCO, LLC <i>25462</i>		7. If Unit or CA Agreement, Name and No. <i>305063</i>
3a. Address P.O. Box 1936 Roswell N.M. 88202	3b. Phone No. (include area code) (575) 623-6601	8. Lease Name and Well No. TAYLOR DEEP 12 FEDERAL # 7H
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 330' FSL & 800' FEL At proposed prod. zone 1650' FNL & 510' FEL		9. API Well No. <i>30-015-38464</i>
14. Distance in miles and direction from nearest town or post office* 20 MILES SE LOCO HILLS N.M.		10. Field and Pool, or Exploratory TAMANO BONE SPRING <input checked="" type="checkbox"/>
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 330'	16. No. of acres in lease 600.06	11. Sec., T. R. M. or Blk. and Survey or Area UL-P, Sec 12, T18S, R31E
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth <i>41,935' 3890 TVD</i> <i>11,961 MD</i>	12. County or Parish Eddy
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3755' GL <input checked="" type="checkbox"/>	22. Approximate date work will start* 11/10/2010	13. State NM
17. Spacing Unit dedicated to this well 120		
20. BLM/BIA Bond No. on file NMB000520		
23. Estimated duration 45 days		

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must be attached to this form:

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature <i>Keith Cannon</i>	Name (Printed/Typed) Keith Cannon	Date 08/27/2010
Title Drilling Superintendent		
Approved by (Signature) <i>James A. Amos</i>	Name (Printed/Typed)	Date JAN 4 2011 <input checked="" type="checkbox"/>
Title <i>For</i> FIELD MANAGER	Office CARLSBAD FIELD OFFICE	

Application approval 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.

Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

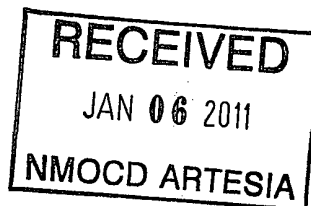
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

Approval Subject to General Requirements
& Special Stipulations Attached

Capitan Controlled Water Basin



SEE ATTACHED FOR
CONDITIONS OF APPROVAL

MS

Application
Nadel and Gussman Heyco, LLC
Taylor Deep 12 Federal 7H
Sec 12, T18S, R31E
SHL: 330 FSL' & 800' FEL
BHL: 1650' FNL & 510 FEL
Eddy County, New Mexico

In conjunction with Form 3160-3, Application For Permit To Drill Or Deepen subject well, Nadel and Gussman Heyco, LLC submits the following ten items of pertinent information in accordance with Onshore Oil & Gas Order No. 10.

1. Geologic Name of Surface Formation:
PERMIAN

2. Estimated Tops of Significant Geologic Markers:

Formation	Depth					
Rustler	920'	Water	Cherryb Canyon Tongue	4,925'	Oil	
Salado	1,120'		Brushy Canyon	5,170'	Oil	
BX (BASE OF SALT)	2,245'		Bone Spring Ls	6,170'	Oil	
Yates	2,440'		Bone Spring 1 st Sand	7,810'	Oil	
Seven Rivers	2,885'	Oil	KO Point	8,375'	TVD	
Bowers	3,330'	Oil	BSPG 2 nd Sand	8,395'	8,395'	
Queen	3,580'	Oil	BSPG C Sand	8,920'	8,810'	
Penrose Sand	3,815'	Oil	End Of Curve	9,125'	8,850'	
Grayburg	4,165'	Oil	TD	11,935'	8,725	
Loco Hills	4,315'	Oil		11,961		
Metex	4,440'	Oil				
Premier	4,520'	Oil				
San Andres	4,630	Oil				

- per directional survey

No other formations are expected to yield oil, gas, or fresh water in measurable volumes.

The surface fresh water sands will be protected by setting 13 3/8" casing at ~~045'~~ and circulating Cement back to surface. All other intervals will be isolation by setting 9 5/8" Casing at ~~2250' - 3025'~~ and circulating cement back to surface. Bone Spring intervals will be isolation by setting 5 1/2" casing to total depth and circulating cement 200' up into 9 5/8" casing.

3. Casing Program:

Hole Size	Depth	OD Csg	Weight	Collar	Grade	New/Used
17 1/2"	0' - 945' ^{1005'}	13 3/8"	54.5#	ST&C	J-55	New
12 1/4"	0' - 3025'	9 5/8"	36#	ST&C	J-55	New
7 7/8"	0' - 11,935' ^{11,961'}	5 1/2"	17#	LT&C	N-80 or L-80	New

- per directional survey

Safety factors: Burst 1.0 Collapse 1.125 Tension 1.8

4. Cement Program:

a. 13 3/8" Surface

Cement to surface with:

Lead - 596 sx 35:65 Poz C, 5% Salt, 0.25# Celloflake, 6% Bentonite, 12.8 ppg and 0.25% Defoamer, 1.89 cu.ft./sk yield, TOC @ surface.
Tail - 200 sx C and 0.25% Defoamer, 14.8 ppg, 1.32 cu.ft./sk yield, TOC @ 782'.

b. 9 5/8" Intermediate Cement to surface with:

Lead - 516 sx 35:65 Poz C, 5% Salt, 0.25# Celloflake, 6% Bentonite and 0.25% Defoamer, 12.4 ppg, 2.09 cu.ft./sk yield, TOC @ surface.
Tail - 200 sx C and 0.25% Defoamer, 14.8 ppg, 1.32 cu.ft./sk yield, TOC @ 1576'.

c. 5 1/2" Production

Cement to 2800' with:

Lead - 429 sx 50:50 Poz C, 5% Salt, 10% Bentonite, 0.25% Celloflake, 0.2% Fluid Loss Agent and 0.25% Defoamer, 11.9 ppg, 2.37 cu.ft./sk yield, TOC @ 2050'.
Tail - 662 sx C, 0.6% Fluid Loss Agent, 0.25% Suspension Aid, 0.3% Gilonite, 3% Salt and 0.25% Defoamer, 13.22 ppg, 1.60 cu.ft./sk yield, TOC @ 5500'.

See COA

The above volumes, additives and depths may be revised based on open hole logs, conditions encountered while drilling and on cement field blend tests. The top of cement for the production string is designed to reach approximately 200' above the 9 5/8" casing shoe.

5. Proposed Mud Circulation System *See COA*

<u>Depth</u>	<u>Mud Wt.</u>	<u>Visc</u>	<u>Fluid Loss</u>	<u>Type System</u>
0' - 945' 1005'	8.4 - 8.8	80 - 55	NC	Fresh Water
1005' - 945' 3025'	9.8 - 10.0	28 - 30	NC	Brine Water
3025' - 11,935' 11,961'	8.8 - 9.4	28 - 32	NC	Cut Brine Water

The necessary mud products for weight addition and fluid loss control will be on location at all times.

6. Pressure Control Equipment:

The blowout preventor equipment (BOPE) shown in Exhibit #1 will consist of a (2m system) for the intermediate 12 1/4" hole w/ Double ram type (3000psi WP) preventor. A (3m system) w/ double ram type 3000psi preventor for the 7 7/8" production hole, and a bag type (hydril) preventor (3000psi WP)

Both unit will be hydraulically operated and the ram type preventor will be equipped with blind rams on top, 4 1/2" drill pipe rams on bottom. The BOP's and Hydril will be tested as per BLM Drilling Operations Order #2.

Pipe rams will be Operated and checked each 24hr period and each time drill pipe is out of the hole.

These functional Test will be documented on the daily driller log. A 2" kill line and 3" choke line will be incorporated In the drilling spool belc the ram-type BOP. Other accessory BOP equipment will include a Kelly Cock, floor safety valve, choke line and choke manifold having a 3000psi w/p rating.

7. Auxiliary Equipment:

- A Kelly Cock will be in the drill string at all times.
- A full opening drill pipe stabbing valve having the appropriate Connections will be on the rig floor at all times.
- Hydrogen Sulfide detection equipment will be in operation after drilling Out the 9 5/8" casing shoe unit the 5 1/2" casing is cemented. Breathing Equipment will be on location upon drilling the 9 5/8" shoe unit total Depth is reached.
- A flex hose from the BOPE to the manifold (specification attached) *hard pipe to be used.*

8. Testing, Logging, & Coring Program: *See COA*

- See COA
-
- a. Mud logging unit from the base intermediate casing to depth
10' samples will be caught by loggers
 - b. No plans for sidewall cores or DST on this well
 - e. Halliburton Quad Combo in vertical hole, GR/DLL-MGRD, GR/DSN-SDL, GR/BSAT, GR/CB/CVL,
MWD/GR Only in lateral

9. Abnormal Conditions, Pressures, Temperature, or Potential Hazards:

No abnormal conditions are expected. There is no known presence of H₂S in this area.
If H₂S is encountered the operator will comply with the provisions of Onshore Oil and Gas
Order No 6. Lost circulation might occur in the Capitan Reef. All personnel will be familiar
with all aspects of safe operation of equipment being used to drill this well.
Estimated BHP 1500 psi and estimated BHT 145 F. No H₂S is anticipated to be encountered.

10. Anticipated Starting Date & Duration of Operation:

Road and location construction will begin after the BLM has approved the APD.
Anticipated spud date will be as soon as possible after BLM approval and as soon
as a rig will be available. Move in operations and drilling is expected to take 30 days.
If production casing is run then an additional 15 days will be needed to complete well
And construct surface facilities and/or lay flow line in order to place well on production.



Weatherford®

Drilling Services

Proposal

NADEL & GUSSMAN HEYCO, LLC.

TAYLOR DEEP 12 FED #7H

EDDY CO, NM

WELL FILE: **PLAN 1**

AUGUST 16, 2010

Weatherford International, Ltd.

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Nadel And Gussman Heyco. LLC

Taylor Deep 12 Fed #7H Eddy Co, New Mexico

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	4.68	0.00	0.00	0.00	0.00	0.00	0.00	
2	8375.00	0.00	4.68	8375.00	0.00	0.00	0.00	0.00	0.00	
3	9142.96	92.54	4.68	8850.00	494.90	40.55	12.05	4.68	496.55	
4	11961.54	92.54	4.68	8725.00	3301.30	270.50	0.00	0.00	3312.36	Pbhl

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Taylor Deep 12 Fed #7H	0.00	0.00	639005.40	658882.40	32°45'20.353N	103°48'59.473W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Pbhl	8725.00	3301.30	270.50	642306.70	659152.90	Point

FIELD DETAILS

Eddy Co, NM (Nad 27)
Geodetic System: US State Plane Coordinate System 1927
Ellipsoid: NAD27 (Clarke 1866)
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010
System Datum: Mean Sea Level
Local North: Grid North

SITE DETAILS

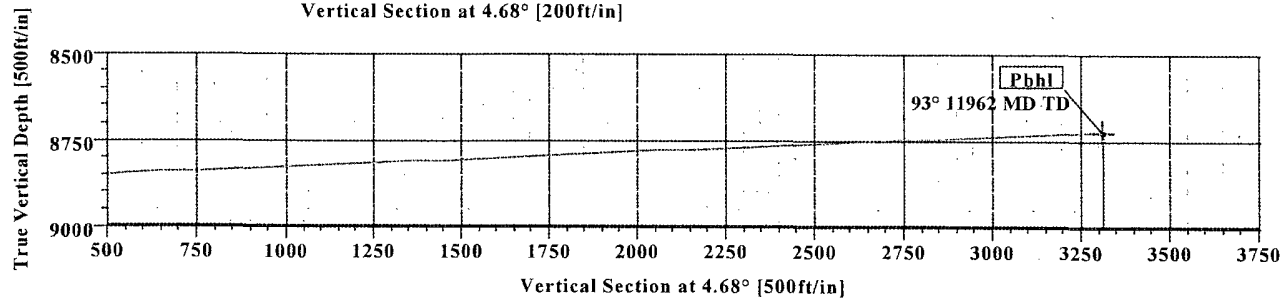
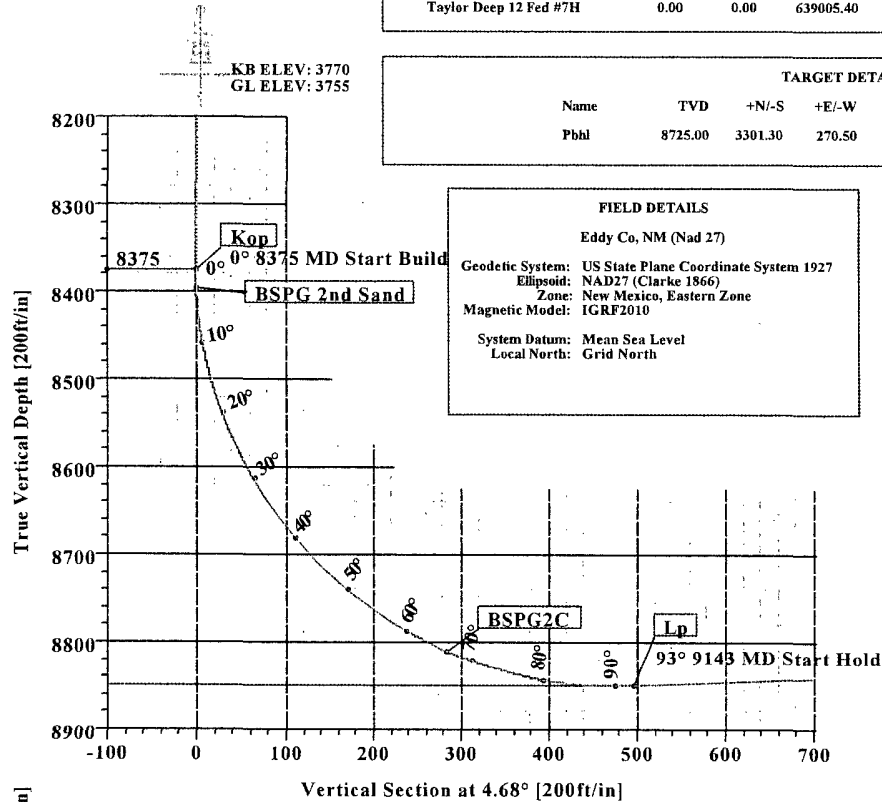
Taylor Deep 12 Fed #7H
Site Centre Northing: 639005.40
Easting: 658882.40
Ground Level: 3755.00
Positional Uncertainty: 0.00
Convergence: 0.28



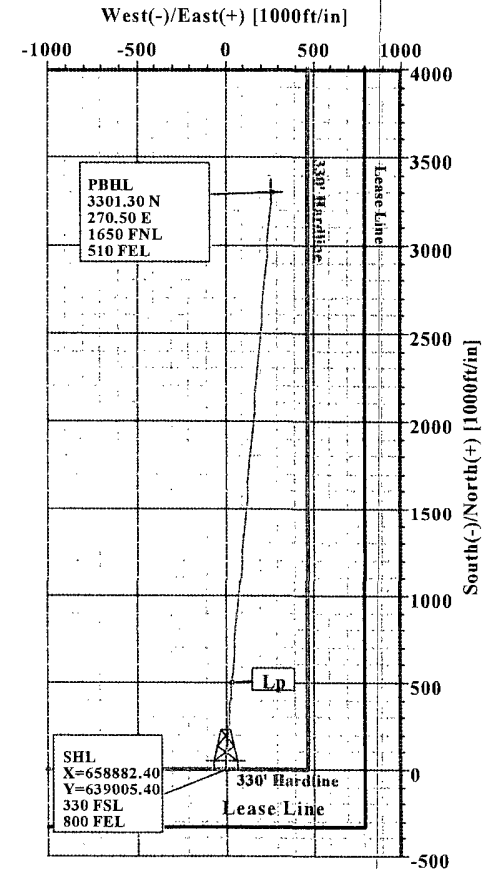
Azimuths to Grid North
True North: -0.28°
Magnetic North: 7.53°

Magnetic Field
Strength: 48993nT
Dip Angle: 60.65°
Date: 11/20/2010
Model: IGRF2010

Total Correction to Grid North: 7.53°



Weatherford



Plan: Plan #1 (Taylor Deep 12 Fed #7H/1)

Created By: Russell W. Joyner

Date: 8/16/2010

**Weatherford®****Weatherford Drilling Services**

GeoDec v5.03

Report Date: August 16, 2010
Job Number: _____
Customer: Nadel & Gussman Heyco, LLC.
Well Name: Taylor Deep 12 Fed #7H
API Number: _____
Rig Name: _____
Location: Eddy Co, NM (Nad 27)
Block: _____
Engineer: RWJ

US State Plane 1927	Geodetic Latitude / Longitude
System: New Mexico East 3001 (NON-EXACT)	System: Latitude / Longitude
Projection: SPC27 Transverse Mercator	Projection: Geodetic Latitude and Longitude
Datum: NAD 1927 (NADCON CONUS)	Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866	Ellipsoid: Clarke 1866
North/South 639005.400 USFT	Latitude 32.7556535 DEG
East/West 658882.400 USFT	Longitude -103.8165203 DEG
Grid Convergence: .28°	
Total Correction: +7.53°	

Geodetic Location WGS84	Elevation =	0.0 Meters
Latitude =	32.75565° N	32° 45 min 20.353 sec
Longitude =	103.81652° W	103° 48 min 59.473 sec

Magnetic Declination =	7.81°	[True North Offset]
Local Gravity =	.9989 g	Checksum = 6702
Local Field Strength =	48989 nT	Magnetic Vector X = 23788 nT
Magnetic Dip =	60.65°	Magnetic Vector Y = 3263 nT
Magnetic Model =	IGRF-2010g11	Magnetic Vector Z = 42701 nT
Spud Date =	Nov 20, 2010	Magnetic Vector H = 24011 nT

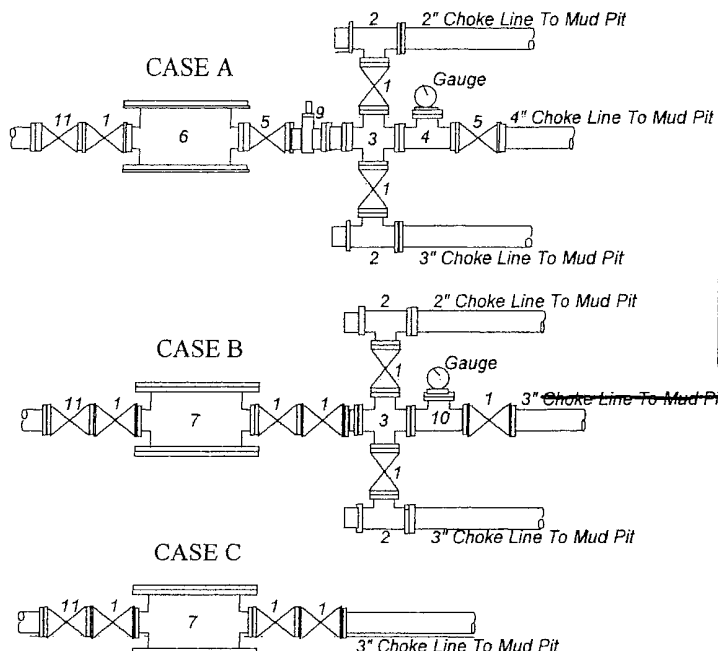
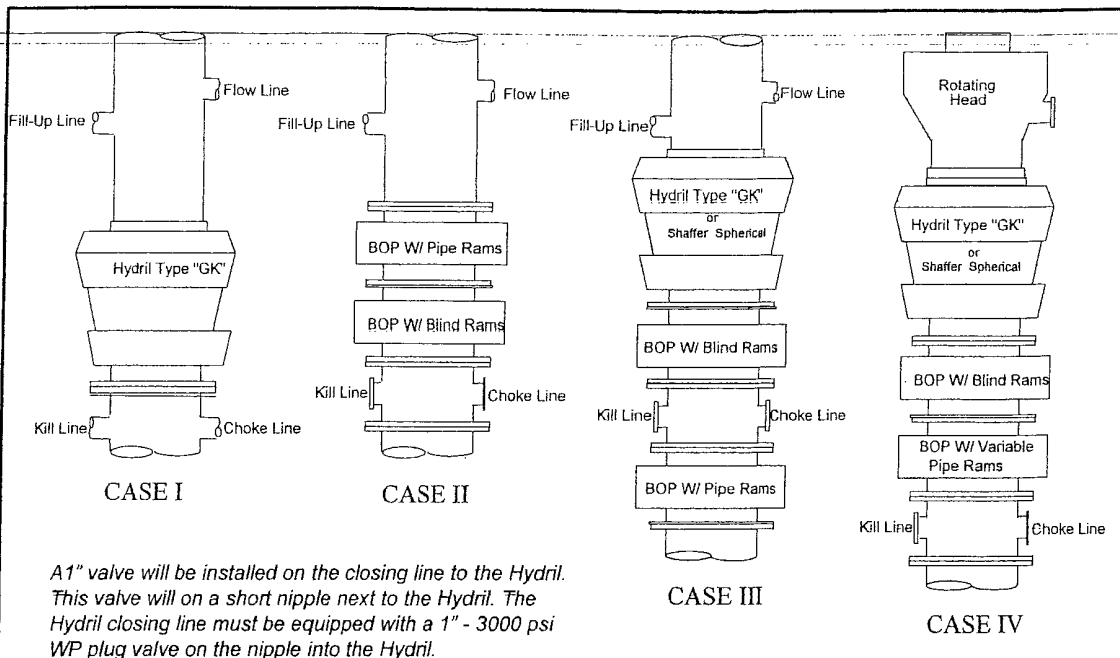
Signed: _____

Date: _____

8-27-10

Nadel and Gussman Heyco, LLC

MINIMUM BLOWOUT PREVENTER REQUIREMENTS



BOP SIZE	BOP CASE	WORKING PRESSURE	CHOKE CASE
13-5/8"	II	2000 psi	B
9"	III	3000 psi	B

**Rotating head required*

Bradenhead : _____
Mfr: _____
Size: _____ Type: _____

Legend

1. 3" flanged all steel valve must be either Cameron "F", Halliburton Low Torque or Shaffer Flo-Seal.
2. 3" flanged adjustable chokes, min. 1" full opening & equipped with hard trim.
3. 4" x 2" flanged steel cross.
4. 4" flanged steel tee.
5. 4" flanged all steel valve (Type as in no. 1).
6. Drilling Spool with 2" x 4" flanged outlet.
7. Drilling Spool with 2" x 2" flanged outlet.
8. 2" x 2" flanged steel cross.
9. 4" pressure operated gate valve.
10. 2" flanged steel tee.
11. 2" Check valve

Notes

Choke manifold may be located in any convenient position. Use all steel fittings throughout. Make 90° turns with bull plugged tees only. No field welding will be permitted on any of the components of the choke manifold and related equipment upstream of the chokes. The choke spool and all lines and fittings must be at least equivalent to the test pressure of the preventers required. Independent closing control unit with clearly marked controls to be located on derrick floor near driller's position.

(10-31-96) WTXBOPS.PPT

Taylor Decp 12 Federal #7H
Sec, 12, T1B5, R31 E
330' FSL & 800' FEL
Eddy Co. N.M.

Keith