13-186

HOBBS OCD

Form 3160-3
(March 2012)

SEP 19 2013

RECEIVED

OCD Hobbs

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

5. Lease Serial No.
NMNM 081274

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
Thyme APY Federal No. 6H (309501)

2. Name of Operator Cimarex Energy Co. ~~of Colorado~~ (215099)

9. API Well No.
30-025- 41421

3a. Address 600 N. Marienfeld, Ste 600
Midland, TX 79701

3b. Phone No. *(include area code)*
432-571-7800

10. Field and Pool or Exploratory
~~Red Lake~~ Diamondtail; Bone Spring (51683)

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 330' FNL & 1880' FWL Unit C
At proposed prod. zone 330' FSL & 1650' FWL Horizontal Bone Spring test Unit N

11. Sec., T. R. M. or Blk. and Survey or Area
1-23S-32E

14. Distance in miles and direction from nearest town or post office*
28.5 miles WSW of Eunice, NM

12. County or Parish
Lea County

13. State
NM

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
479.25

17. Spacing Unit dedicated to this well
159.85 75

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 100' from #7

19. Proposed Depth
MD 15314' TVD 10900'.
Pilot Hole 12600'

20. BLM/BIA Bond No. on file
NM2575; NMB000835

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3746' GR

22. Approximate date work will start*
03/15/2013

23. Estimated duration
25-30 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.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature Paula Brunson
Name *(Printed/Typed)* Paula Brunson
Date 10/31/2012

Title
Regulatory Analyst

Approved by *(Signature)* /S/ STEPHEN J. CAFFEY
Name *(Printed/Typed)*
Date SEP 17 2013

Title 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)

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

Carlsbad Controlled Water Basin

Approval Subject to General Requirements
& Special Stipulations Attached

PM

SEP 25 2013

Application to Drill
Thyme APY Federal 6
Cimarex Energy Co. of Colorado
Lot 3, Section 1
T23S-R32E; Lea County, NM

In response to questions asked under Section II B of Bulletin NTL-6, the following information is provided for your consideration:

1 Location: SHL 330 FNL & 1880 FWL
BHL 330 FSL & 1650 FWL

2 Elevation above sea level: 3746 GR

3 Geologic name of surface formation: Quaternary Alluvium Deposits

4 Drilling tools and associated equipment: Conventional rotary drilling rig using fluid as a circulating medium for solids removal.

5 Proposed drilling depth: MD 14096' TVD 9600' Pilot hole 12600'

6 Estimated tops of geological markers:

Groundwater per OSE	525	
Rustler	1220	
T. Salt	1295	
B. Salt	4680	
Bell Canyon	5000	Possible Hydrocarbons
Cherry Canyon	5875	
Brushy Canyon	7150	
Basal Brushy Canyon	8500	Possible Hydrocarbons
Bone Spring	8600	
Upper Bone Spring Shale	9250	Possible Hydrocarbons
1st Bone Spring SS	9975	Possible Hydrocarbons
2nd Bone Spring Shale	10580	Possible Hydrocarbons
3rd Bone Spring Shale	11810	
Wolfcamp	12175	
TD Pilot Hole	12600	

7 Possible mineral bearing formation:
Shown above

See COA

8 Proposed Mud Circulating System:

Depth	Mud Wt	Visc	Fluid Loss	Type Mud
0' to ~~1270~~ 1325'	8.4 - 8.6	28	NC	FW
~~1270'~~ to 4980'	10.0	30-32	NC	Brine water
4980' to 15314'	8.4	30-32	NC	FW and brine, 2% KCL in the lateral

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

The Mud Monitoring System is an electronic Pason System satisfying requirements of Onshore Order 1.

Proposed Drilling Plan
After drilling and setting surface and intermediate casing, drill 7 7/8" or 8 3/4" hole to 12600' and log. Pump 30 bbls MUDPUSHII 12 ppg, followed by 765 sks Type H Cement, + 0.5% Halad-322 + 0.2% HR-601; 15.6 ppg, 1.2 yield from 12600' to 10422'. Set whipstock and kick off 7 7/8" or 8 3/4" lateral @ 10422' and drill to TD @ 15314' MD, 10900' TVD. Run 5 1/2" casing and cement per plan.

See COA

8 Casing & Cementing Program:

String	Hole Size	Depth			Casing OD		Weight	Collar	Grade
Surface	17 1/2"	0'	to	1325' ~~1270'~~	New	13 3/8"	48#	STC	H-40
Intermediate	12 1/4"	0'	to	3400'	New	9 5/8"	36#	LTC	J-55
Intermediate	12 1/4"	3400'	to	4980'	New	9 5/8"	40#	LTC	J-55
Production	7 7/8" or 8 3/4"	0'	to	10422'	New	5 1/2"	17#	LTC	P-110
Production	7 7/8"or 8 3/4"	10422'	to	15314'	New	5 1/2"	17#	BTC	P-110

9 Cementing:

Surface	Sacks	Yield (cuft/sx)	Weight (ppg)	Cubic Feet	Cement Blend
Lead	807	1.8	13.5	1412	Class C + Bentonite + Calcium Chloride + LCM
Tail	165	1.3	14.8	221	Class C + LCM

TOC: Surface 85% Excess **Centralizers per Onshore Order 2.III.B.1f**

Intermediate	Sacks	Yield (cuft/sx)	Weight (ppg)	Cubic Feet	Cement Blend
Lead	1068	1.9	12.9	2008	35:65 (poz/C) + Salt + Bentonite + LCM + retarder
Tail	280	1.3	14.8	376	Class C + retarder + LCM

TOC: Surface 80% Excess

Production	Sacks	Yield (cuft/sx)	Weight (ppg)	Cubic Feet	Cement Blend
Lead	708	2.4	11.9	1700	35:65 (poz/H) + salt + Sodium Metasilicate + Bentonite + Fluid Loss + Dispersant + LCM + Retarder
Tail	1379	1.2	14.5	1710	– 50:50 (poz/H) + Bentonite + Salt + Fluid Loss + Dispersant + LCM + Retarder

See COA

Cement volumes will be adjusted depending on hole size.

TOC: 4,300' 25% Excess **No centralizers planned in the lateral section. 1 every jt from EOC to KOP. 1 every 4th joint from KOP to 500' inside previous casing.**

Collapse Factor	*Burst Factor*	*Tension Factor*
1.125	1.125	1.6

10 Pressure Control Equipment:

Exhibit "E". A 13⅝" 5000 PSI working pressure BOP, tested to 3000 psi on the surface casing and 5000 psi on the intermediate, consisting of one set of blind rams and one set of pipe rams and a 5000# annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head as needed. 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.

BOP unit will be hydraulically operated. BOP will be installed and operated at least once a day while drilling and the blind rams will be operated when out of hole during trips. No abnormal pressure or temperature is expected while drilling.

BOPS will be tested by an independent service company to 250 psi low and 3000 psi high on the surface casing and 250 psi low and 5000 psi high on the intermediate. Hydril will be tested to 250 psi low and 2500 psi high on the surface and intermediate casings.

Cimarex Energy Co. of Colorado requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached. The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used.

See COA

Application to Drill
Thyme APY Federal 6
Cimarex Energy Co. of Colorado
Lot 3, Section 1
T23S-R32E; Lea County, NM

12 Testing, Logging and Coring Program:

A. Mud logging program: 2 man unit from 4980 to TD
B. Electric logging program: CNL / LDT / CAL / GR, DLL / GR - Inter. Csg to TD
CNL/GR - Surf Csg to Inter. Csg See COA
C. No DSTs or cores are planned at this time.

13 Potential Hazards:

See COA

No abnormal pressures or temperatures are expected. In accordance with Onshore Order 6, Cimarex does not anticipate that there will be enough H_2S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H_2S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H_2S Safety package on all wells, attached is an "H_2S Drilling Operations Plan." Adequate flare lines will be installed off the mud / gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

Estimated BHP **4905 psi** Estimated BHT **138°**

14 Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved.
Drilling expected to take 30-35 days
If production casing is run an additional 30 days will be required to complete and construct surface facilities.

15 Other Facets of Operations:

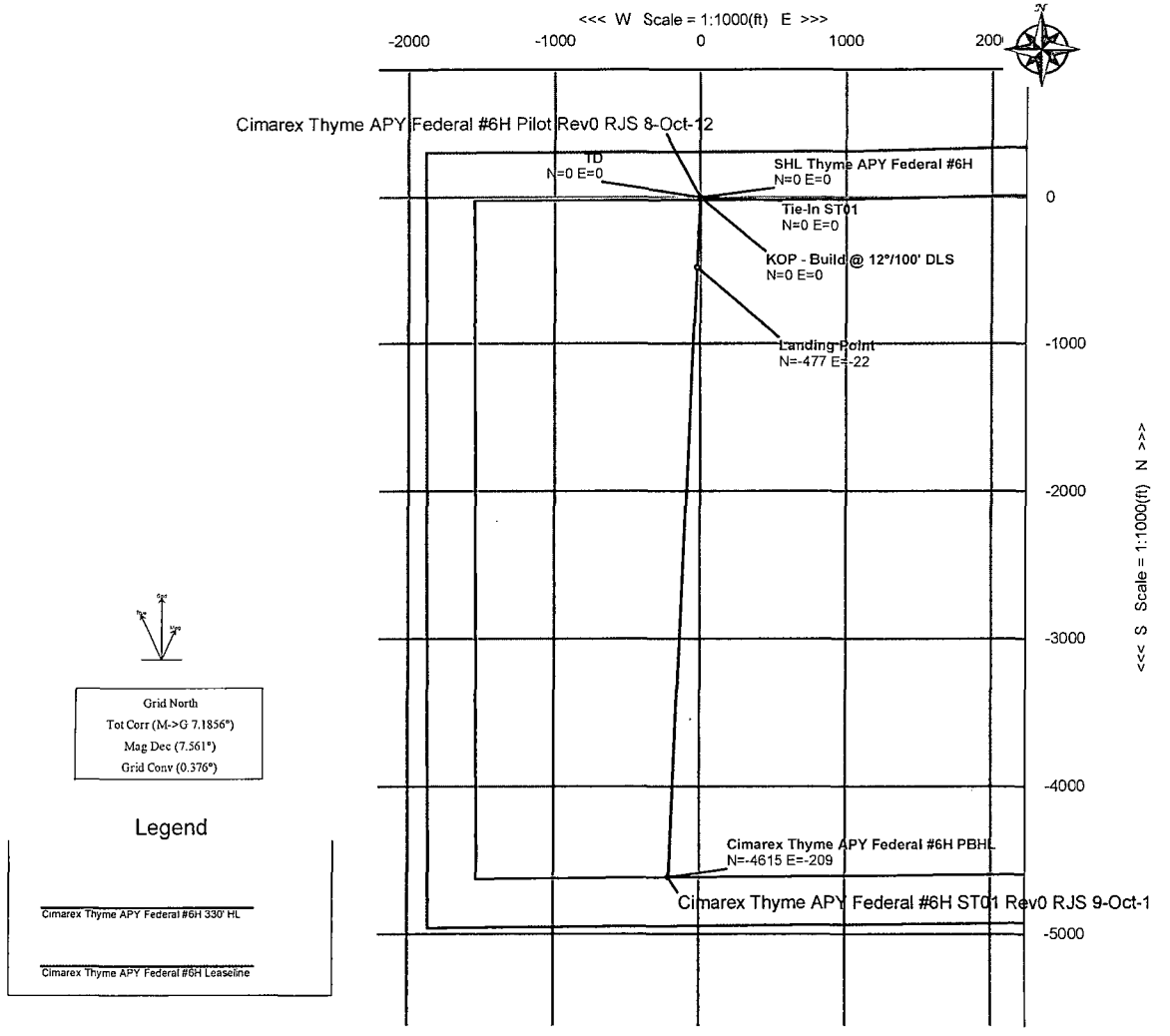
After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals.
Bone Spring pay will be perforated and stimulated.
The proposed well will be tested and potentialed as **an oil well.**

Cimarex

PATHFINDER
A Schlumberger Company

WELL	FIELD	STRUCTURE
Thyme APY Federal #6H	NM Lea County	TBD

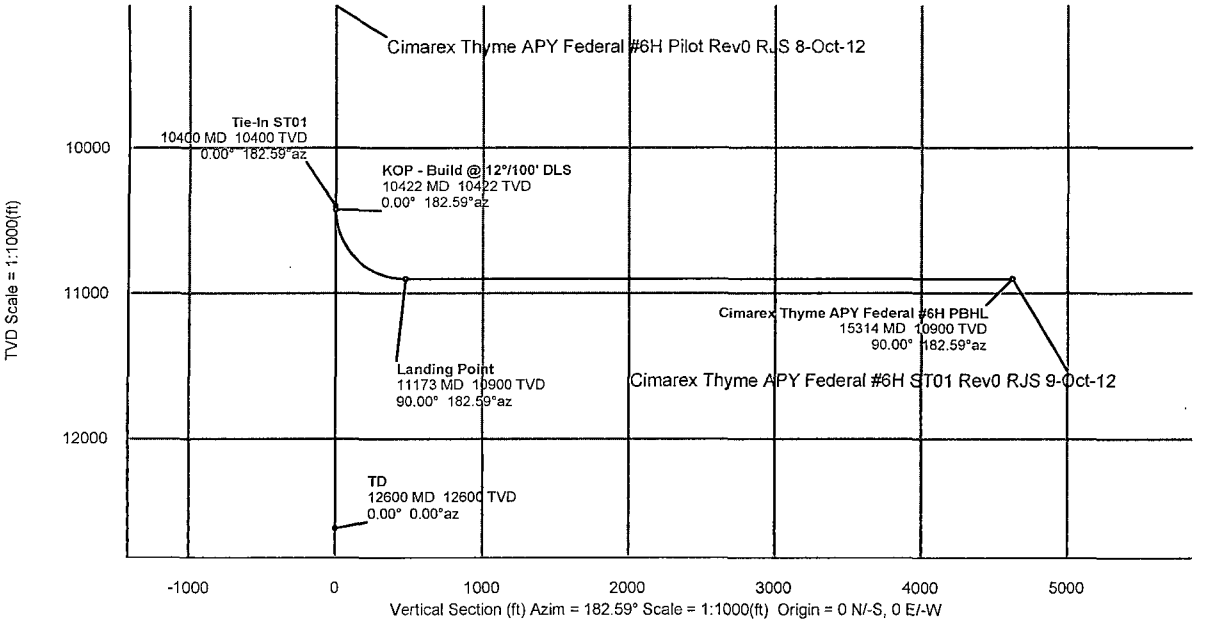
Magnetic Parameters				Surface Location				Miscellaneous			
Model: BGGM 2012	Dip: 60.214°	Date: October 09, 2012		Lat: N 32 20 24.531	Northing: 488189.30 ftUS	Grid Conv: 0.376°		Slot: Thyme APY Federal #6H	TVD Ref.: Ground Level(3740ft above MSL)		
	Mag Dec: 7.561°	FS: 48535.4nT		Lon: W 103 37 50.777	Easting: 758317.80 ftUS	Scale Fact: 0.99996301		Plan: ST01 Rev0 RJS 9-Oct-12	Srvy Date: October 09, 2012		



Legend

Cimarex Thyme APY Federal #6H 330' HL

Cimarex Thyme APY Federal #6H Leaseline



Critical Points

Critical Point	MD	INCL	AZM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
Tie-In ST01	10400.00	0.00	182.59	10400.00	0.00	0.00	0.00	
KOP - Build @ 12°/100' DLS	10422.40	0.00	182.59	10422.40	0.00	0.00	0.00	0.00
Landing Point	*11172.61*	*90.00*	*182.59*	*10900.00*	*477.60*	*-477.11*	*-21.59*	*12.00*
Cimarex Thyme APY Federal #6H PBHL	15314.31	90.00	182.59	10900.00	4619.30	-4614.58	-208.81	0.00

Cimarex Thyme APY Federal #6H ST01 Rev0 RJS 9-Oct-12 Proposal Report
100' Interpolated
(Non-Def Plan)

PATHFINDER
A Schlumberger Company

Report Date:	October 11, 2012 - 12:39 PM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Cimarex	**Vertical Section Azimuth:**	182.591 ° (Grid North)
Field:	NM Lea County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	TBD / Cimarex Thyme APY Federal #6H	**TVD Reference Datum:**	Ground Level
Well:	Cimarex Thyme APY Federal #6H	**TVD Reference Elevation:**	3746.000 ft above MSL
Borehole:	ST01	**Seabed / Ground Elevation:**	3746.000 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	7.561 °
Survey Name:	Cimarex Thyme APY Federal #6H ST01 Rev0 RJS 9-Oct-12	**Total Gravity Field Strength:**	999.1417 mgn (9.8 based)
Survey Date:	October 09, 2012	**Total Magnetic Field Strength:**	48535.433 nT
Tort / AHD / DDI / ERD Ratio:	90.000 ° / 4619.302 ft / 5.766 / 0.424	**Magnetic Dip Angle:**	60.214 °
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Declination Date:**	October 09, 2012
Location Lat / Long:	N 32° 20' 24.53079", W 103° 37' 50.77714"	**Magnetic Declination Model:**	BGGM 2012
Location Grid N/E Y/X:	N 488189.300 ftUS, E 758317.800 ftUS	**North Reference:**	Grid North
CRS Grid Convergence Angle:	0.3758 °	**Grid Convergence Used:**	0.3758 °
Grid Scale Factor:	0.99996301	**Total Corr Mag North->Grid North:**	7.1856 °
		Local Coord Referenced To:	Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")	Closure (ft)	Closure Azimuth (°)	DLS (°/100ft)
SHL Thyme APY Federal #6H	0.00	0.00	0.00	0.00	0.00	0.00	0.00	488189.30	758317.80	N 32 20 24.53	W 103 37 50.78	0.00	0.00	N/A
Tie-In ST01	10400.00	0.00	182.59	10400.00	0.00	0.00	0.00	488189.30	758317.80	N 32 20 24.53	W 103 37 50.78	0.00	0.00	0.00
KOP - Build @ 12°/100' DLS	10422.40	0.00	182.59	10422.40	0.00	0.00	0.00	488189.30	758317.80	N 32 20 24.53	W 103 37 50.78	0.00	0.00	0.00
Landing Point	11172.61	90.00	182.59	10900.00	477.60	-477.11	-21.59	487712.21	758296.21	N 32 20 19.81	W 103 37 51.07	477.60	182.59	12.00
Cimarex Thyme APY Federal #6H PBHL	15314.31	90.00	182.59	10900.00	4619.30	-4614.58	-208.81	483574.90	758109.00	N 32 19 38.88	W 103 37 53.56	4619.30	182.59	0.00

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	10400.000	1/100.000	30.000	30.000	SLB_NSG+MSHOT	Original Borehole / Cimarex Thyme APY Federal #6H Pilot
	10400.000	15314.314	1/100.000	30.000	30.000	SLB_NSG+MSHOT	ST01 / Cimarex Thyme APY Federal #6H ST01 Rev0 RJS 9-

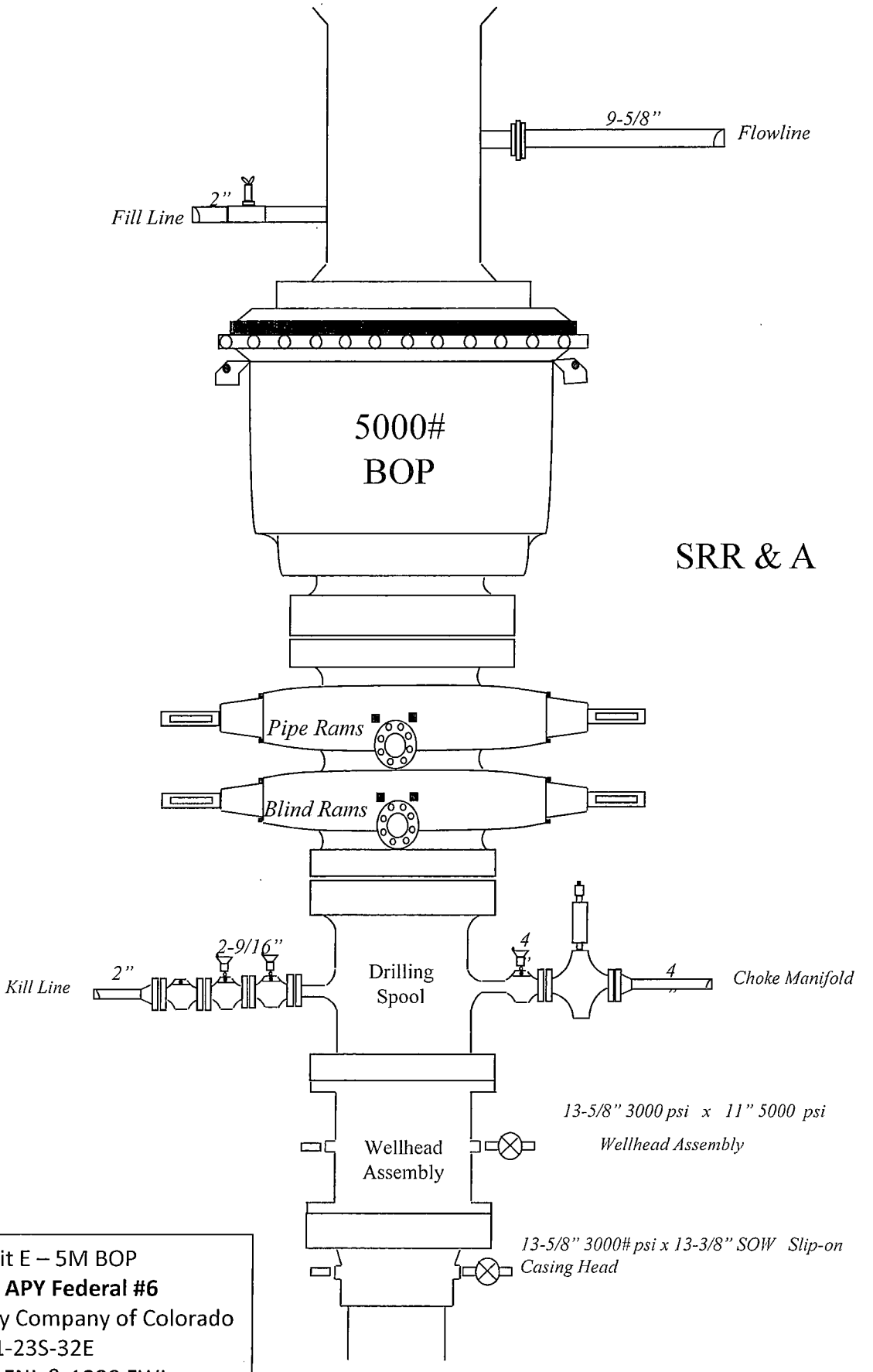
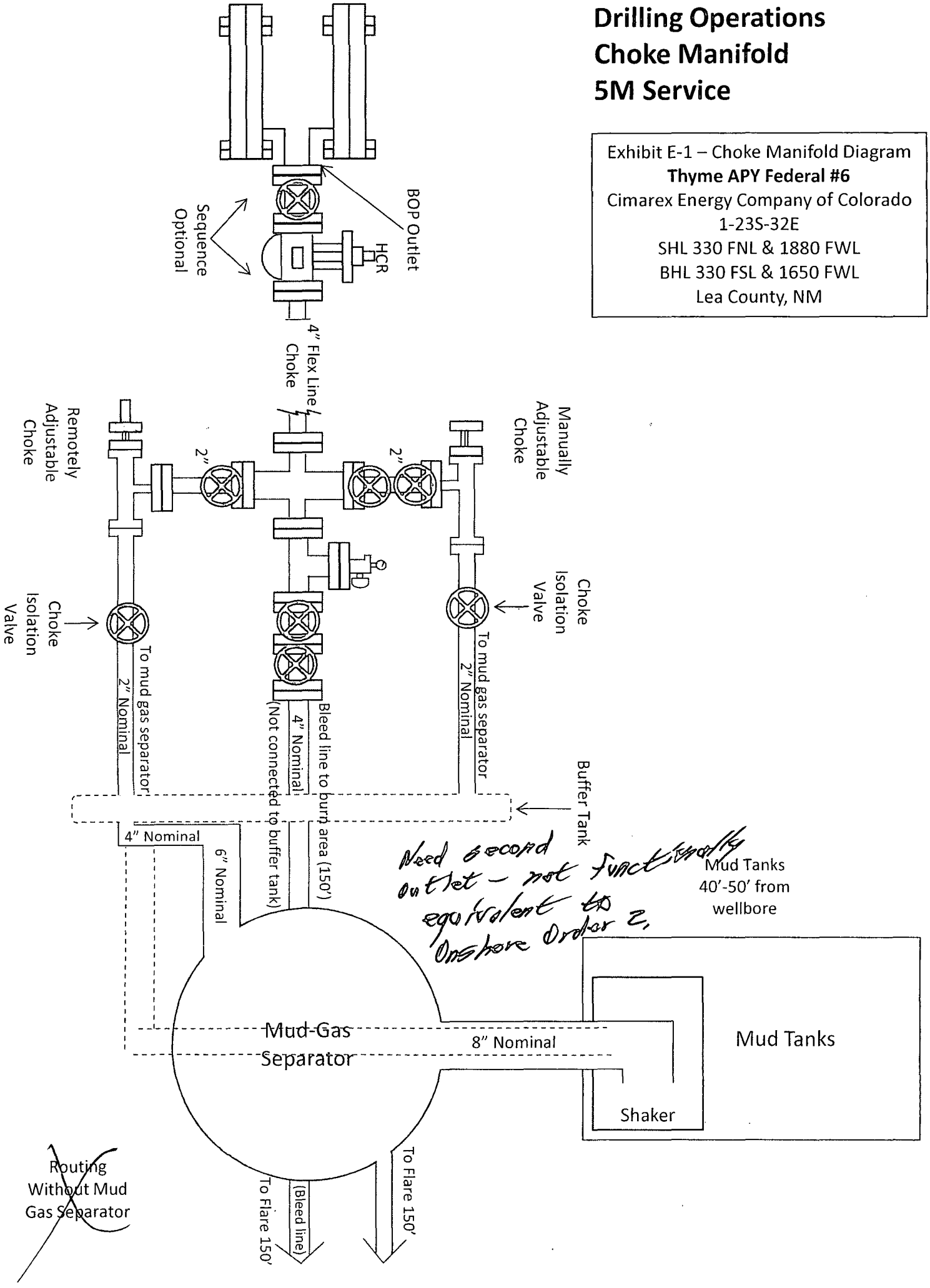


Exhibit E – 5M BOP
Thyme APY Federal #6
Cimarex Energy Company of Colorado
1-23S-32E
SHL 330 FNL & 1880 FWL
BHL 330 FSL & 1650 FWL
Lea County, NM

Drilling Operations
Choke Manifold
5M Service

Exhibit E-1 – Choke Manifold Diagram
Thyme APY Federal #6
Cimarex Energy Company of Colorado
1-23S-32E
SHL 330 FNL & 1880 FWL
BHL 330 FSL & 1650 FWL
Lea County, NM



Midwest Hose
& Specialty, Inc.

INTERNAL HYDROSTATIC TEST REPORT

Customer:	P.O. Number:
Oderco Inc	odyd-271

HOSE SPECIFICATIONS

Type:	Hose Length:
Stainless Steel Armor Choke & Kill Hose	45'ft.

I.D.	O.D.
4 INCHES	9 INCHES

WORKING PRESSURE	TEST PRESSURE	BURST PRESSURE
10,000 PSI	15,000 PSI	0 PSI

COUPLINGS

Stem Part No.	Ferrule No.
OKC OKC	OKC OKC
Type of Coupling:	
Swage-It	

PROCEDURE

Hose assembly pressure tested with water at ambient temperature.

TIME HELD AT TEST PRESSURE	ACTUAL BURST PRESSURE:
15 MIN.	0 PSI

Hose Assembly Serial Number:	Hose Serial Number:
79793	OKC

Comments:

Date:	Tested:	Approved:
3/8/2011	A. Jaime Sosa	

Midwest Hose & Specialty, Inc.

Internal Hydrostatic Test Graph

March 3, 2011

Customer: Houston

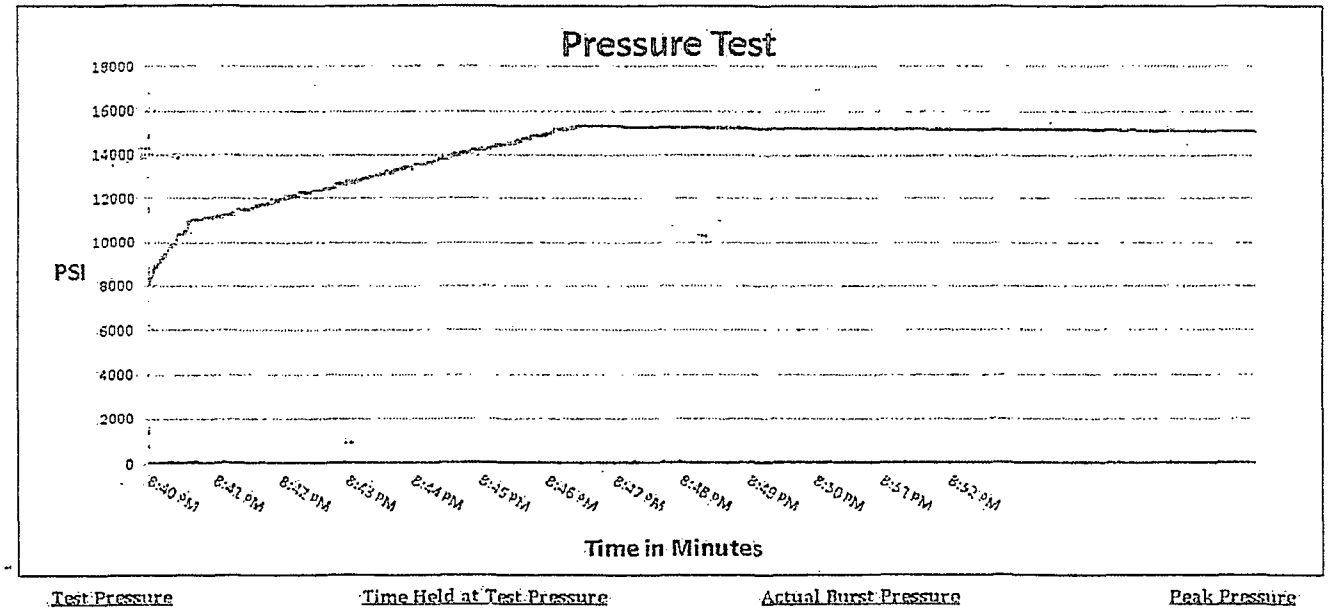
Pick Ticket #: 94260

Hose Specifications

Hose Type	Length
C & K	45'
I.D.	O.D.
4"	6.09"
Working Pressure	Burst Pressure
10000 PSI	Standard Safety Multiplier Applies

Verification

Type of Fitting	Coupling Method
4 1/16 10K	Swage
Die Size	Final O.D.
6.38"	6.25"
Hose Serial #	Hose Assembly Serial #
5544	79793



Test Pressure	Time Held at Test Pressure	Actual Burst Pressure	Peak Pressure
15000 PSI	11 Minutes		15483 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: *Zac Mcconnell*

Approved By: *Kim Thomas*

Midwest Hose
& Specialty, Inc.

Certificate of Conformity

Customer:	PO
DEM	ODYD-271

SPECIFICATIONS

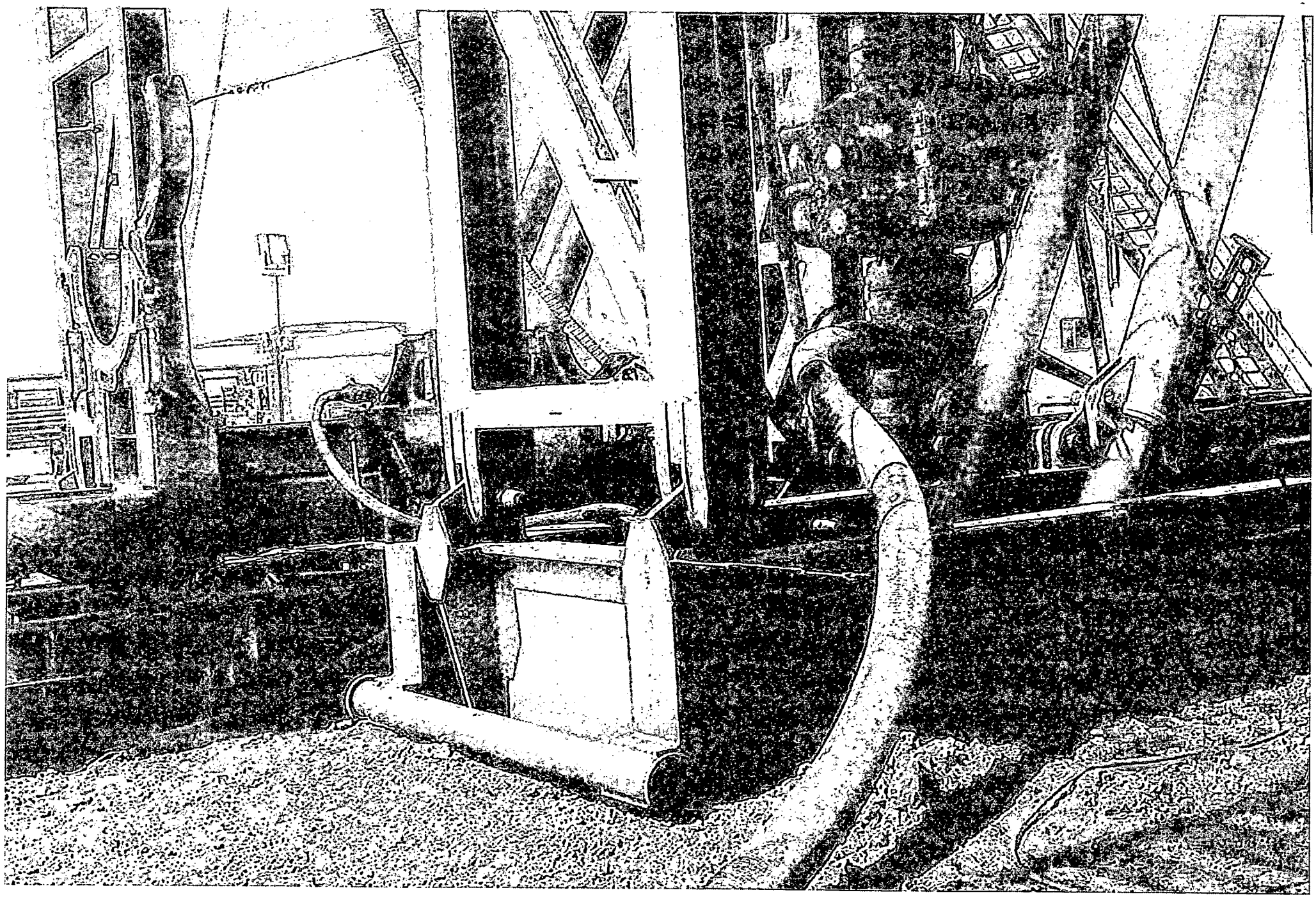
Sales Order	Dated:
79793	3/8/2011

We hereby cerify that the material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards

Supplier:
Midwest Hose & Specialty, Inc.
10640 Tanner Road
Houston, Texas 77041

Comments:

Approved:	Date:
[signature]	3/8/2011



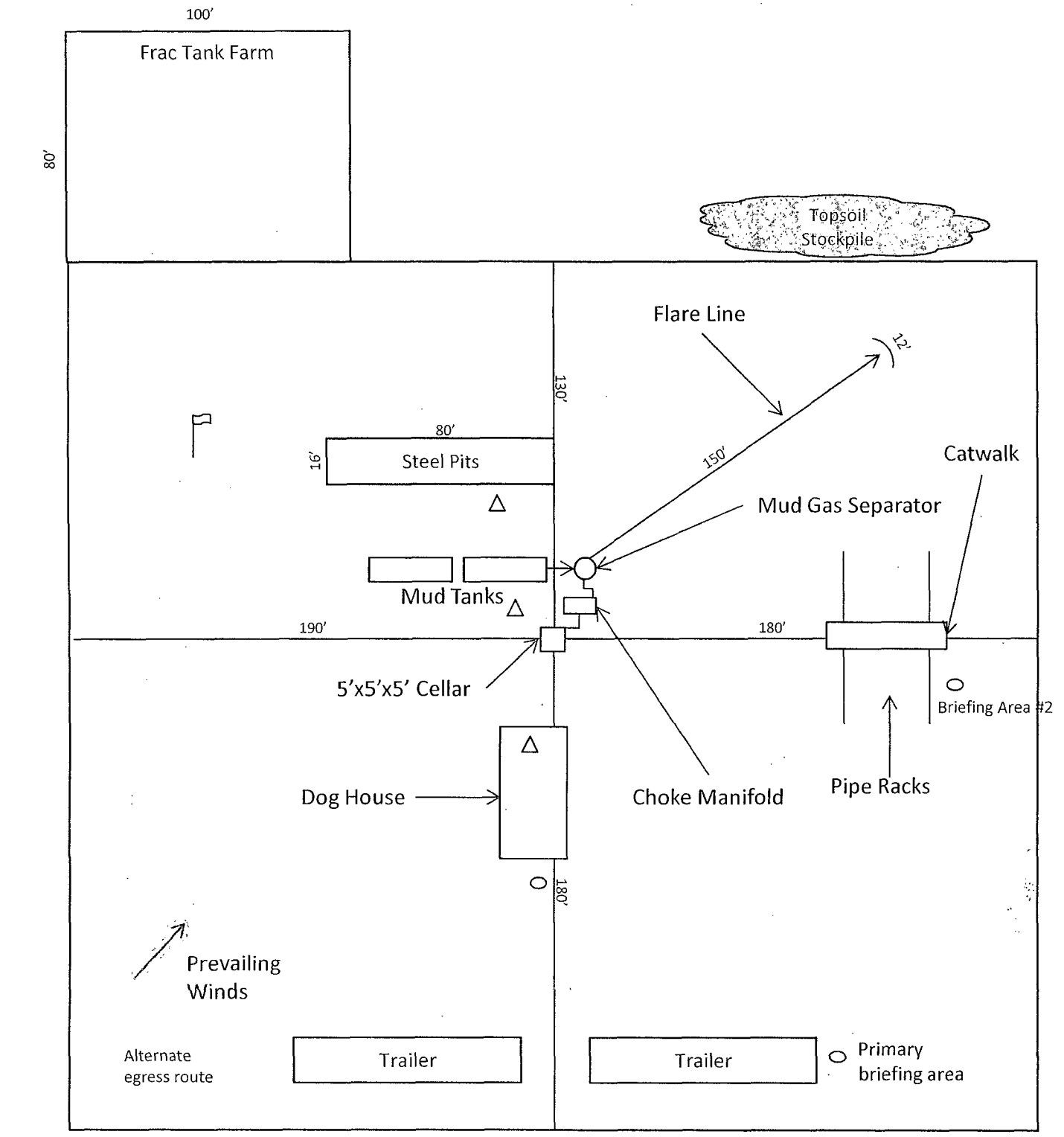


Exhibit D – Rig Diagram
Thyme APY Federal #6
Cimarex Energy Company of Colorado
1-23S-32E
SHL 330 FNL & 1880 FWL
BHL 330 FSL & 1650 FWL
Lea County, NM

N

Wind Direction Indicators (wind sock or streamers)

• H2S Monitors (alarms at bell nipple and shale shaker)

Briefing Areas