

12-762

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SEP 17 2012  
NMOC D ARTESIA

Form 3160-3  
(March 2012)

OCD Artesia

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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5 Lease Serial No  
NM-048343

6 If Indian, Allottee or Tribe Name

TCs  
9/17/2012

1a Type of work ☒ DRILL ☐ REENTER

1b Type of Well ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

2 Name of Operator OXY USA WTP LIMITED PARTNERSHIP

8 Lease Name and Well No  
PIGLET 21 FEDERAL #9 <39440>

9 API Well No  
30-015-40709

3a Address P.O. BOX 4294  
HOUSTON, TX 77210

3b. Phone No. (include area code)  
713-513-6640

10. Field and Pool, or Exploratory  
ARTESIA, GLORIETA-YESO (O) <96830>

4 Location of Well (Report location clearly and in accordance with any State requirements)  
At surface 488' FNL & 1574' FWL  
At proposed prod. zone

UNORTHDOX  
LOCATION

11. Sec., T R. M. or Blk. and Survey or Area  
C, SEC 21, T17S, R28E

14 Distance in miles and direction from nearest town or post office\*  
12 miles East of Artesia, N M

12 County or Parish  
EDDY

13 State  
NM

15 Distance from proposed\* 488'  
location to nearest  
property or lease line, ft.  
(Also to nearest drg unit line, if any)

16. No. of acres in lease  
120

17 Spacing Unit dedicated to this well  
40

18 Distance from proposed location\* 441'  
to nearest well, drilling, completed,  
applied for, on this lease, ft.

19 Proposed Depth  
5300' MD/TVD

20. BLM/BIA Bond No on file  
ES0136

21 Elevations (Show whether DF, KDB, RT, GL, etc)  
3595'

22 Approximate date work will start\*  
08/25/2012

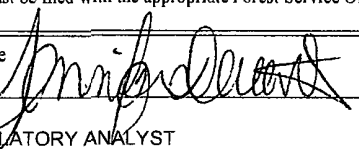
23 Estimated duration  
10 DAYS

24 Attachments

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

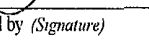
- 1 Well plat certified by a registered surveyor
- 2 A Drilling Plan
- 3 A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).

- 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   
Title  
REGULATORY ANALYST

Name (Printed/Typed)  
JENNIFER DUARTE (jennifer\_duarte@oxy.com)

Date  
05/21/2012

Approved by (Signature)  Is/ Don Peterson

Name (Printed/Typed) Is/ Don Peterson

Date  
SEP 13 2012

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 USC Section 1001 and Title 43 USC 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)

NMOC D: MUST BE IN COMPLIANCE  
W/ RULE 5.9 PRIOR TO Placing  
Well on PRODUCTION

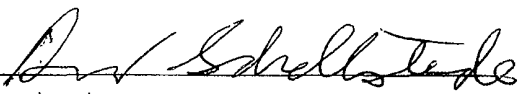
Roswell Controlled Water Basin

Approval Subject to General Requirements  
& Special Stipulations Attached

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

### OPERATOR CERTIFICATION

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements. Executed this 21<sup>st</sup> day of May, 2012.

Name: David Schellstede   
Position: Reservoir Management Team Leader  
Address: 5 Greenway Plaza, Suite 110, Houston, TX 77046  
Telephone: 713-366-5013  
E-mail: (optional): david\_schellstede@oxy.com  
Company: OXY USA WTP Limited Partnership  
Field Representative (if not above signatory): Dusty Weaver  
Address (if different from above): P.O. Box 50250 Midland, TX 79710  
Telephone (if different from above): 432-685-5723  
E-mail (if different from above): calvin\_weaver@oxy.com

DISTRICT I  
1625 N. French Dr., Hobbs, NM 88240  
Phone: (505) 393-6161 Fax: (505) 393-4720

DISTRICT II  
811 S. First St., Artesia, NM 88210  
Phone: (505) 748-1282 Fax: (505) 748-0720

DISTRICT III  
1000 Rio Brazos Blvd., Aztec, NM 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department  
OIL CONSERVATION DIVISION  
1220 South St. Francis Dr.  
Santa Fe, New Mexico 87505

Form C-102  
Revised August 1, 2011  
Submit one copy to appropriate  
District Office

AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number <b>30-015-46709</b>	Pool Code 96830	Pool Name Artesia; Glorieta-Yeso (O)
Property Code <b>39440</b>	Property Name PIGLET 21 FEDERAL	Well Number 9
GRID No. 192463	Operator Name OXY USA WTP Limited Partnership	Elevation 3595'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	21	17-S	28-E		488	NORTH	1574	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No
40			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

<p>1574'</p> <p>488'</p> <p>GEODETIC COORDINATES NAD 27 NME</p> <p>SURFACE LOCATION Y=664069.7 N X=545999.9 E LAT.=32 825525' N LONG.=104 153557' W</p> <p>DETAIL</p> <p>3592.8' 3589.3'</p> <p>600'</p> <p>3598.8' 3600.6'</p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or released mineral interest in the land including, the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</p> <p><i>Jennifer Duarte</i> 7/3/12 Signature Date</p> <p>Jennifer Duarte Printed Name</p> <p>jennifer_duarte@oxy.com E-mail Address</p> <p><b>SURVEYOR CERTIFICATION</b></p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>APRIL 4, 2012</p> <p>Date of Survey</p> <p>Signature of Professional Surveyor</p> <p>RONALD J. EIDSON NEW MEXICO 3239</p> <p>Certificate Number 12641 Ronald J. Eidson 3239</p> <p>DSS JWSC W.O. 12.11.0088</p>
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OPERATOR: Please do not report production under this pool id code until OCD confirms perfs and appropriate pool designation on completion and C104 approvals.

# APD DATA – DRILLING PLAN –

**OPERATOR NAME / NUMBER:** OXY USA WTP LP

**LEASE NAME / NUMBER:** Piglet 21 Federal 9

**STATE:** NM                      **COUNTY:** Eddy

**SURFACE LOCATION:**                      488' FNL & 1574' FWL, Sec 21, T17S, R28E

**C-102 PLAT APPROX GR ELEV:** 3595'

**EST KB ELEV:** 3609' (14' KB)

**1. GEOLOGIC NAME OF SURFACE FORMATION**

a. Permian

**2. ESTIMATED TOPS OF GEOLOGICAL MARKERS & DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS**

Formation	TV Depth Top	Expected Fluids
Rustler	100	Fresh Water
Top of Salt	310	-
Base of Salt	390	-
Yates	410	-
Seven Rivers	604	-
Queen	1170	-
Grayburg	1640	Oil
San Andres	1749	Oil/Water
Glorietta	3350	Oil
Paddock	3440	Oil
Blinberry	3900	Oil
Tubb – Base of Yeso	4820	Oil
Drinkard	4965	-
TD	5300	TD

A. Fresh Water formations will be covered with the 16" conductor pipe, which will be set at 120' prior to spud.

**GREATEST PROJECTED TD** 5300' MD / 5300' TVD      **OBJECTIVE:** Yeso

**3. CASING PROGRAM (NEW)**

Surface Casing: 9.625" casing set at ± 450' MD/ 450' TVD in a 12.25" hole filled with 8.4 ppg mud

Interval	Length	Wt	Gr	Condition	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0' - 450'	450'	36	J-55	New	ST&C	2020	3520	394	8.921	8.765	13.33	1.97	27.91

Using offset well information and Oxy Yeso State wells as reference, we have found lost circulation at depths up to 350'.

We would like to cover these zones by setting surface casing in the Yates before continuing. We also need to have surface casing at this depth in order to have sufficient kick tolerance to drill to TD.

Production Casing: 5.5" casing set at ± 5300' MD / 5300' TVD in a 7.875" hole filled with 9.2 ppg mud

Interval	Length	Wt	Gr	Condition	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0' - 5300'	5300'	17	L-80	New	LT&C	6290	7740	338	4.892	4.767	2.48	3.86	4.37

Collapse and burst loads calculated using Stress Check with actual anticipated loads.

#### 4. CEMENT PROGRAM:

\* See COA

##### Surface Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft <sup>3</sup> /sk	24 Hr Comp
<b>Surface (TOC: 0' - 450')</b>							
<b>Lead:</b> 0' - 450' (150% Excess)	150	0'	Premium Plus Cement: 94 lbm/sk Premium Plus Cement, 10 lbm/sk Cal-Seal 60, 0.125 lbm/sk Poly-E- Flake, 10 lbm/sk Kol-Seal, 1 % Calcium Chloride - Flake	7.46	14.2	1.67	1290 psi
<b>Tail:</b> 0' - 450' (150% Excess)	250	450'	Premium Plus Cement: 94 lbm/sk Premium Plus Cement, 2 % Calcium Chloride - Flake	6.39	14.8	1.35	2500 psi

##### Production Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft <sup>3</sup> /sk	24 Hr Comp
<b>Production (TOC: 0' - 5300')</b>							
<b>Lead:</b> 0' - 3000' (125 % Excess)	600	3000'	Halliburton Light Premium Plus: 5% Salt, 3 lbm/sk Kol-Seal, 0.125 lb/sx Poly_E_Flake	9.95	12.9	1.89	530 psi
<b>Tail:</b> 3000' - 5300' (125 % Excess)	735	2300'	50/50 Poz Premium Plus: 3% Salt, 0.4% Halad ®-322, 0.125 lb/sx Poly E_Flake	5.64	14.5	1.24	980 psi

#### 5. PRESSURE CONTROL EQUIPMENT

**Surface: 0 - 450'** None.

**Production: 0 - 5300'** the minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required to drill below the surface casing shoe shall be 3000 (3M) psi (including annular).

- The 11" 3000 psi blowout prevention equipment will be installed and operational after setting the 9 5/8" surface casing and the 9 5/8" SOW x 11" 3K conventional wellhead;
- The BOP and ancillary BOPE will be tested by a third party upon installation to the 9 5/8" 36# J-55 surface casing. All equipment will be tested to 250/3000 psi for 10 minutes except the annular, which will be tested to 70% of working pressure (2100 psi).
- The pipe rams will be functionally tested during each 24 hour period; the blind rams will be functionally tested on each trip out of the hole. These functional tests will be documented on the Daily Driller's Log. Other accessory equipment (BOPE) will include a safety valve and subs as needed to fit all drill strings, and a 2" kill line and 3 " choke line having a 3000 psi WP rating.
- See attached BOP & Choke manifold diagrams.
- Oxy requests a variance if Savanna 415 is used to drill this well to use a co-flex line between the BOP and choke manifold. See attached schematic.

Manufacturer: Hebei Ouya Ltd.

Serial Number: 1642343-04

Length: 39" Size: 3"

Ends: flanges

WP rating: 3000 psi

Anchors required by manufacturer: No

See  
COA \*

## 6. MUD PROGRAM:

Depth	Mud Wt ppg	Vis Sec	Fluid Loss	Type System
0 – 450'	9.6 – 10.0	27 – 30	NC	Fresh Water
450' – TD	9.2 – 9.4	27 – 40	10 -20	Brine Water / Salt Gel

Remarks: Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times.

- A. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

## 7. AUXILIARY WELL CONTROL AND MONITORING EQUIPMENT

- a. A Kelly cock will be in the drill string at all times.
- b. A full opening drill pipe stabbing valve having the appropriate connections will be on the rig floor unobstructed and readily accessible at all times.

## 8. LOGGING / CORING AND TESTING PROGRAM:

- A. Mud Logger: None.
- B. DST's: None.
- C. Open Hole Logs as follows: Triple combo for production section.

*\* See COA*

## 9. POTENTIAL HAZARDS:

- A. H2S detection equipment will be in operation after drilling out the surface casing shoe until the production casing has been cemented. Breathing equipment will be on location from drilling out the surface shoe until production casing is cemented. If H2S is encountered the operator will comply with Onshore Order #6.
- B. The bottomhole pressure is anticipated to be 2536 psi.
- C. No abnormal temperatures or pressures are anticipated. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely.

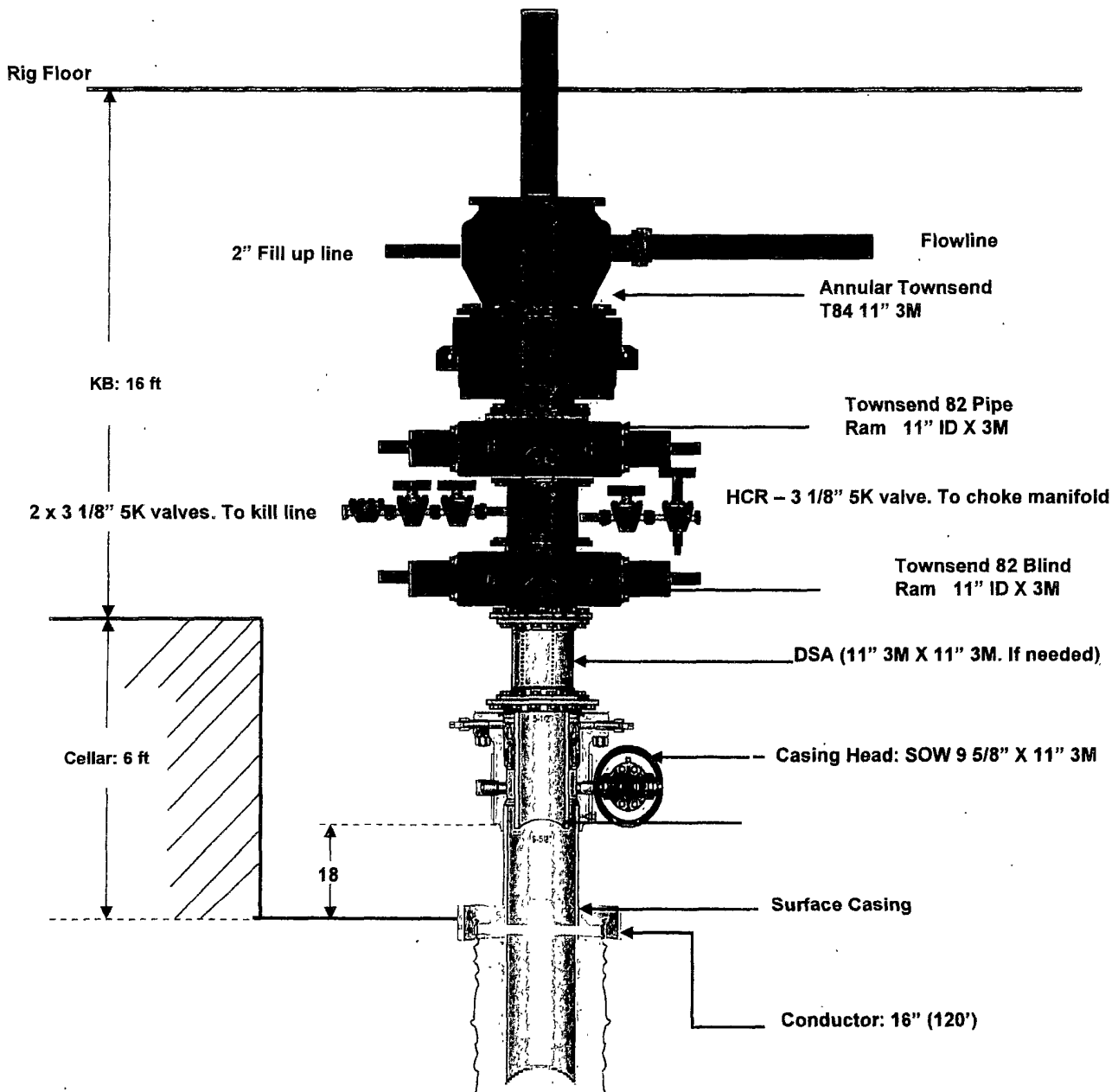
## 10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS

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 15 days. If production casing is run, then an additional 30 days will be needed to complete the well and construct surface facilities and/or lay flow lines in order to place well on production.

## 11. COMPANY PERSONNEL:

Name	Title	Office Phone
Carlos Mercado	Drilling Engineer	713-366-5418
Luis Tarazona	Drilling Engineer Supervisor	713-366-5771
Roger Allen	Drilling Superintendent	713-215-7617
Douglas Chester	Drilling Manager	713-366-5194

# BOP Diagram



# 3-1/8" x 2-1/16" 3000# NACE TRIM SINGLE GUT CHOKE & KILL MANIFOLD SYSTEM

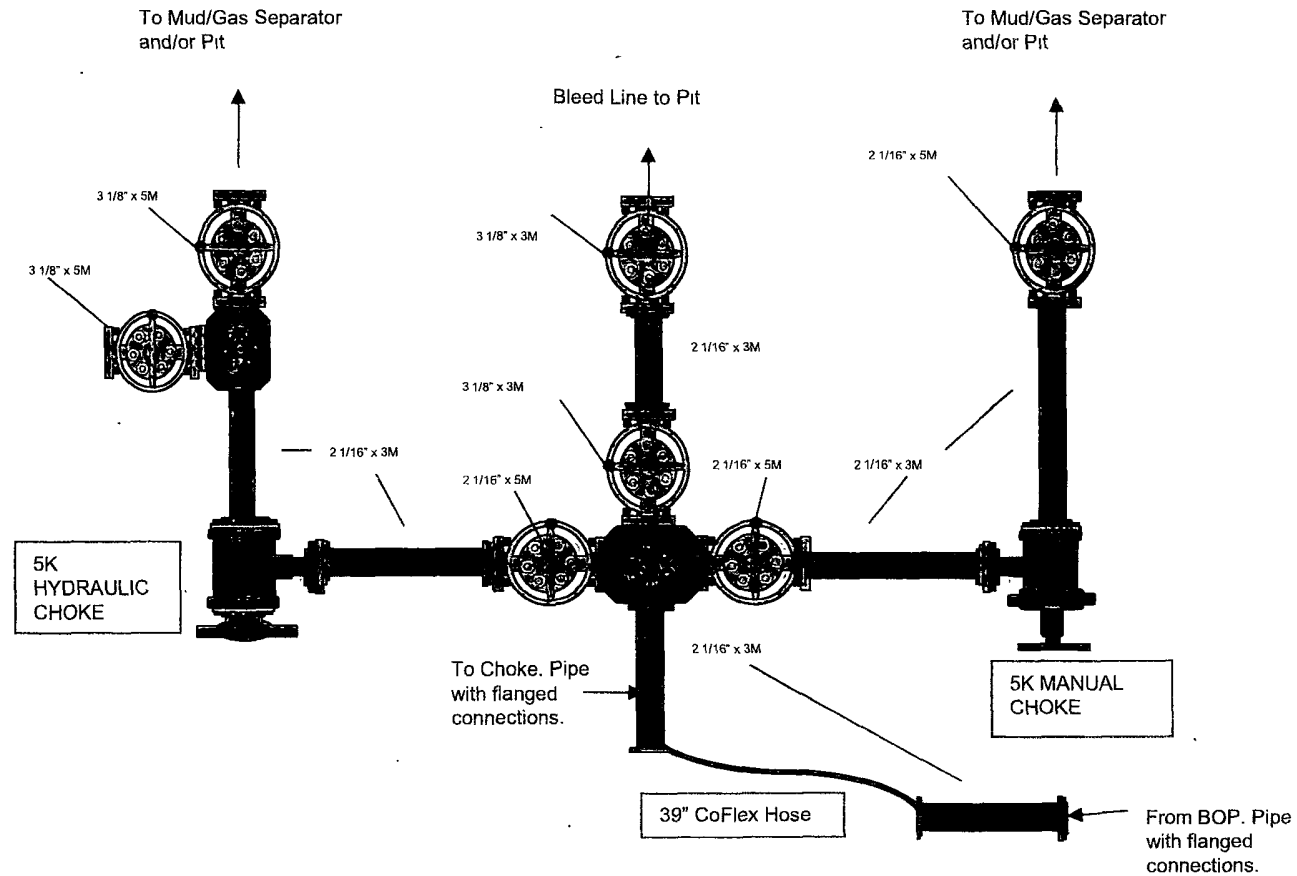
August-06

ITEM	I.D. NO.	DESCRIPTION
1	9053	2-1/16" 5000# BLIND FLANGE
2	AR0605004	2-1/16" 5000# STUDDED CROSS
3	AS0606009	2-1/16" 5000# CNV NACE TRIM GATE VALVE
4	9053	2-1/16" 5000# x 2" L.P. COMPANION FLANGE
5	Q7082	2-1/16" 3000# x 8.562" O.A.L. FLANGED SPACER SPOOL
6	AS0606003	2-1/16" 5000# CNV NACE TRIM GATE VALVE
7	A0445	3-1/8" x 3-1/8" x 2-1/16" x 2-1/16" 3000# STUDDED CROSS
8	AS0606119	3-1/8" 3000# CNV NACE TRIM GATE VALVE
9	F3323	3-1/8" 3000# x 3" L.P. COMPANION FLANGE
10	AS0606004	2-1/16" 5000# CNV NACE TRIM GATE VALVE
11	Q7082	2-1/16" 3000# x 3.312" O.A.L. SOLID SPACER SPOOL
12	AR0605007	2-1/16" 5000# STUDDED CROSS
13	AS0606005	2-1/16" 5000# CNV NACE TRIM GATE VALVE
14	9053	2-1/16" 5000# x 2" L.P. COMPANION FLANGE
15	9053	2-1/16" 5000# BLIND FLANGE
16	AS0606007	2-1/16" 5000# CNV NACE TRIM GATE VALVE
17	Q7082	2-1/16" 3000# x 7" O.A.L. DOUBLE STUDDED SPACER SPOOL
18	1091200-1-1130	2-1/16" 5000# CORTEC "CM-2" ADJUSTABLE CHOKE c/w 2 x 0.75" CERAMIC DISCS
19	AS0606006	2-1/16" 5000# CNV NACE TRIM GATE VALVE
20	A0441	3-1/8" x 3-1/8" x 2-1/16" x 2-1/16" x 2-1/16" 3000# 5- WAY STUDDED BLOCK
21	AS0606118	3-1/8" 3000# CNV NACE TRIM GATE VALVE
22	51209	3-1/8" 3000# x 10.5" O.A.L. FLANGED SPACER SPOOL
23	AS0606001	2-1/16" 5000# CNV NACE TRIM GATE VALVE
24	Q7082	2-1/16" 3000# x 4.733" O.A.L. SOLID SPACER SPOOL
25	1091200-1-1137	2-1/16" 5000# CORTEC "CM-2" ADJUSTABLE CHOKE c/w 2 x 0.75" CERAMIC DISCS
26	Q7082	2-1/16" 3000# x 7" O.A.L. DOUBLE STUDDED SPACER SPOOL
27	AS0606008	2-1/16" 5000# CNV NACE TRIM GATE VALVE
28	AS0606002	2-1/16" 5000# CNV NACE TRIM GATE VALVE
29	9053	2-1/16" 5000# x 2" L.P. COMPANION FLANGE

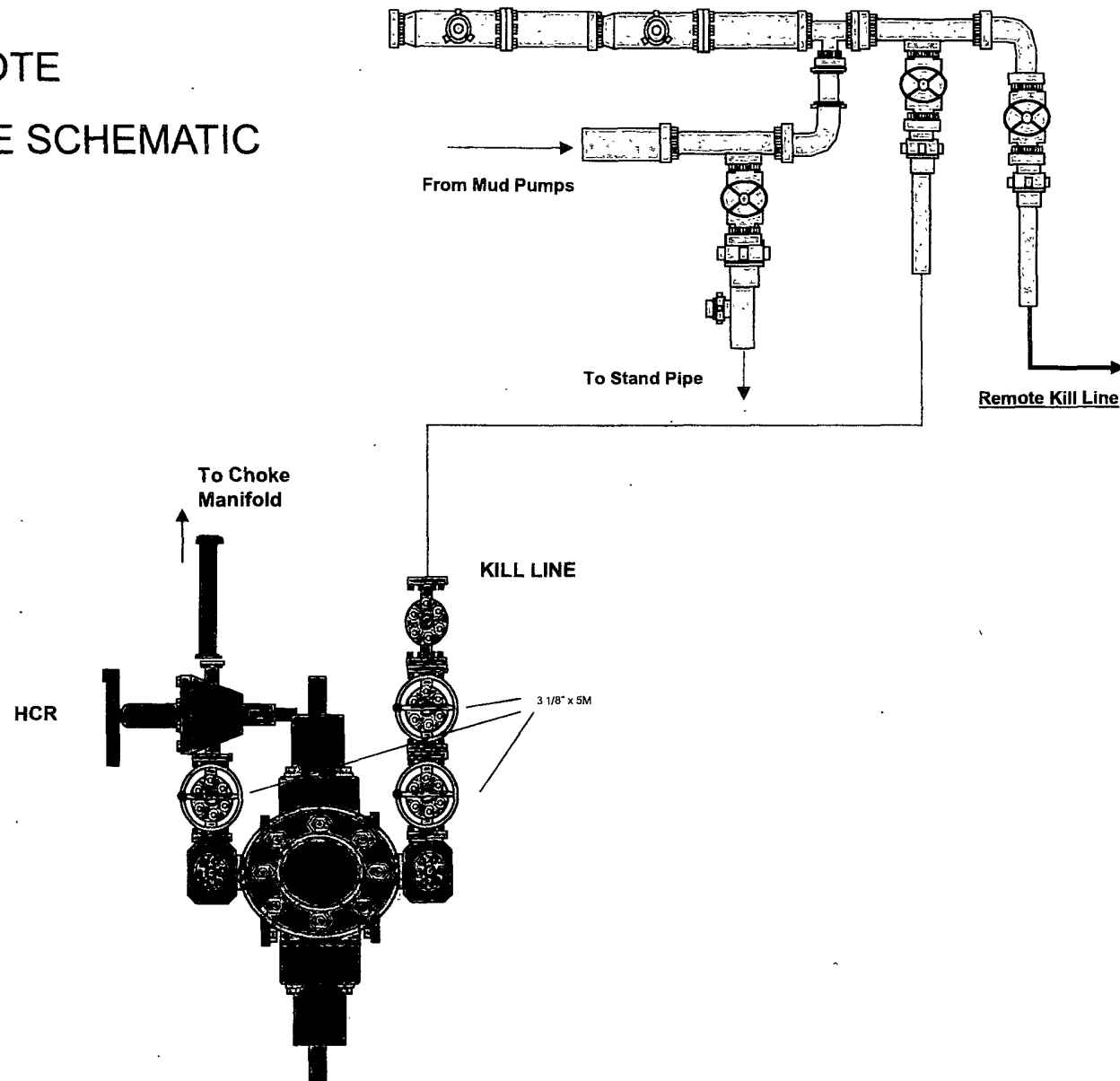
**EVE**

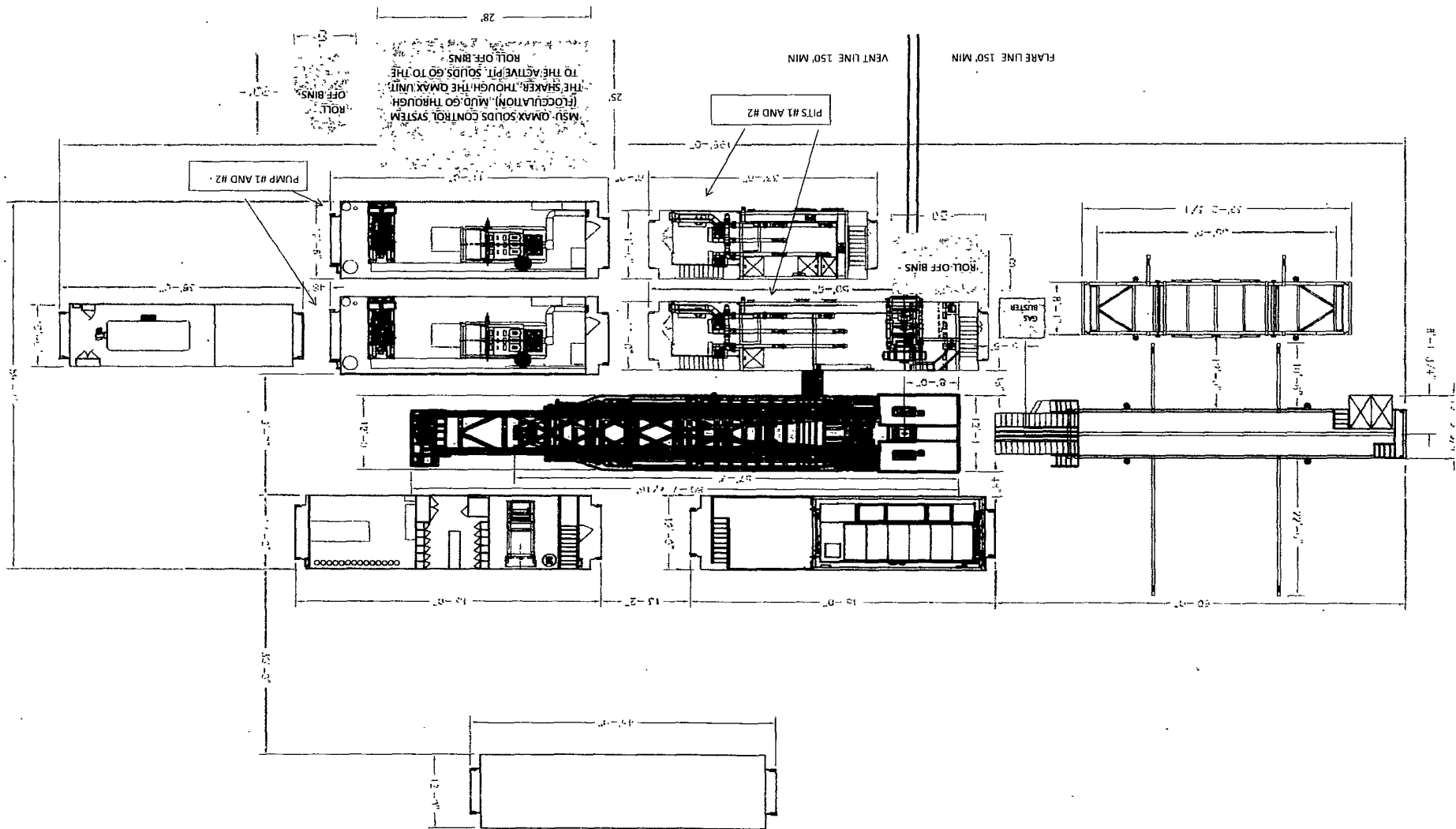


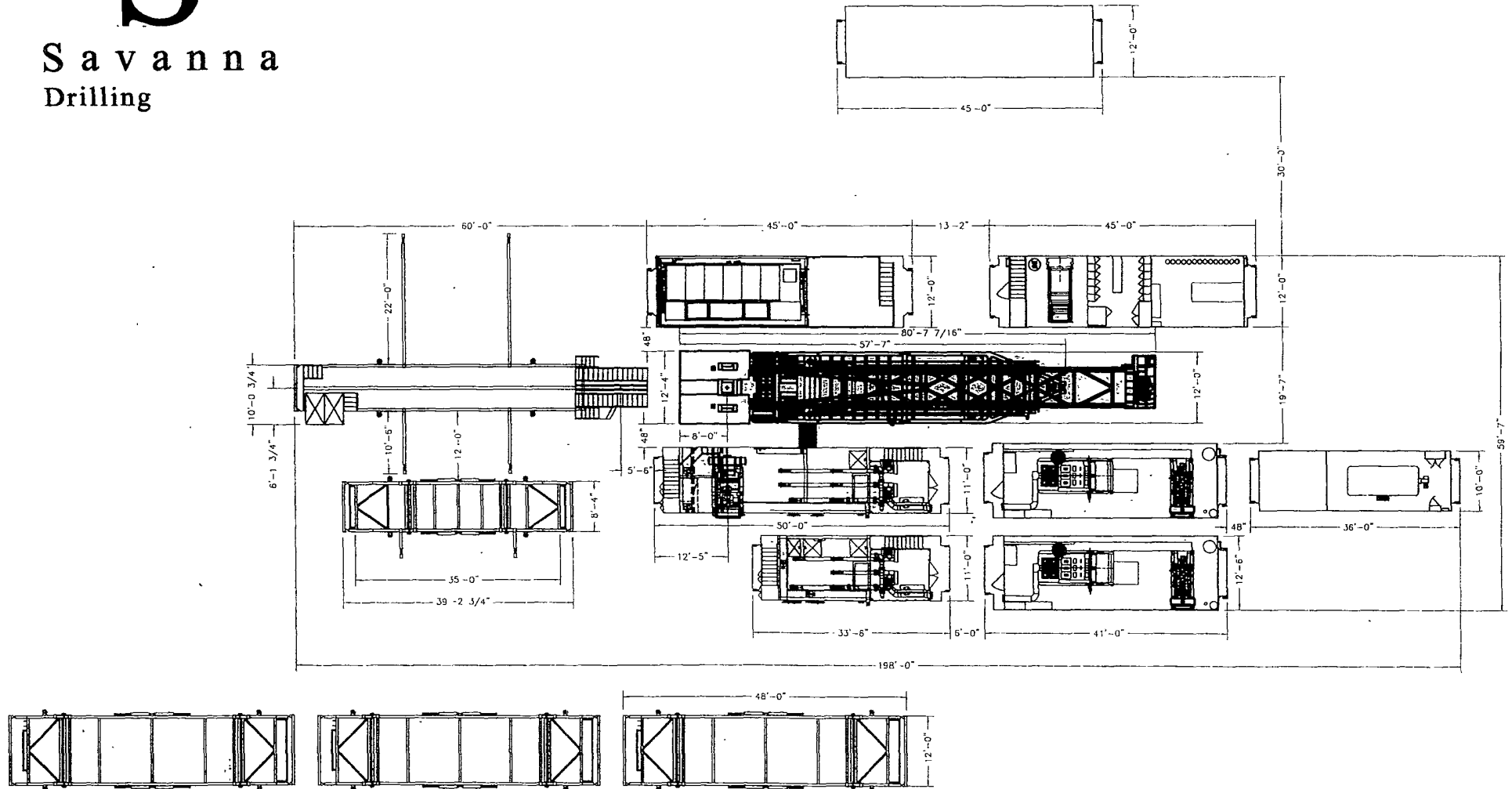
# 3M CHOKE MANIFOLD CONFIGURATION



# 3M REMOTE KILL LINE SCHEMATIC

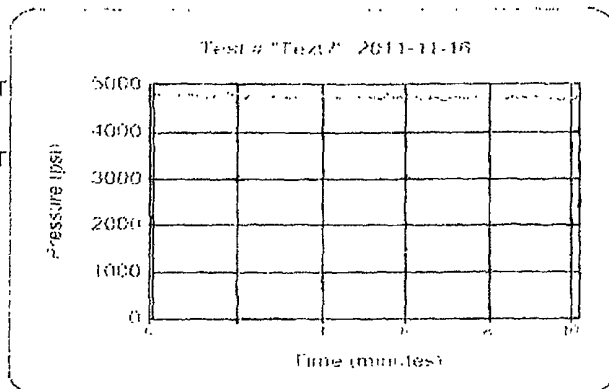


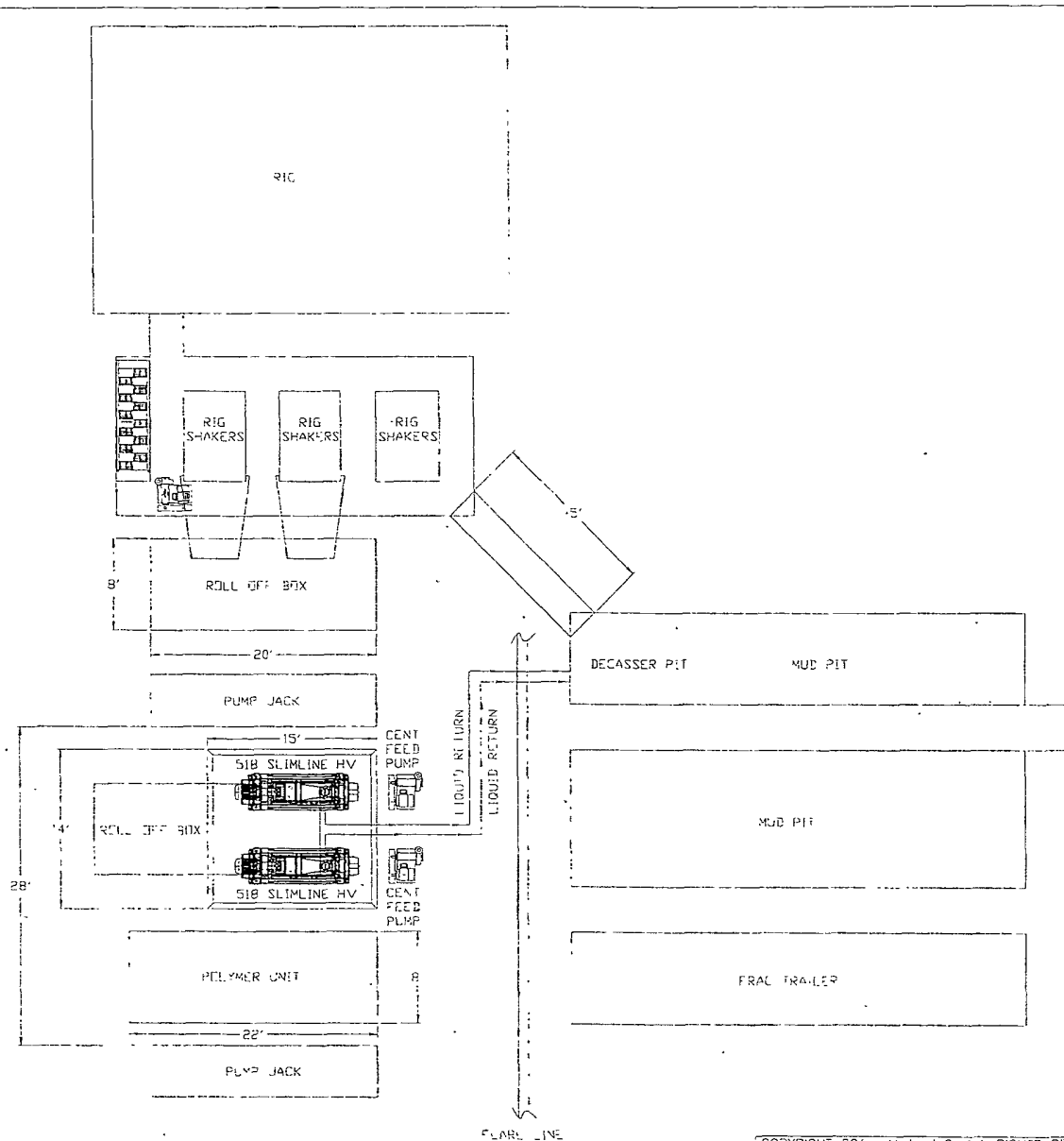




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9727 47th Ave  
Edmonton, AB T6E 5M7  
780-437-2630

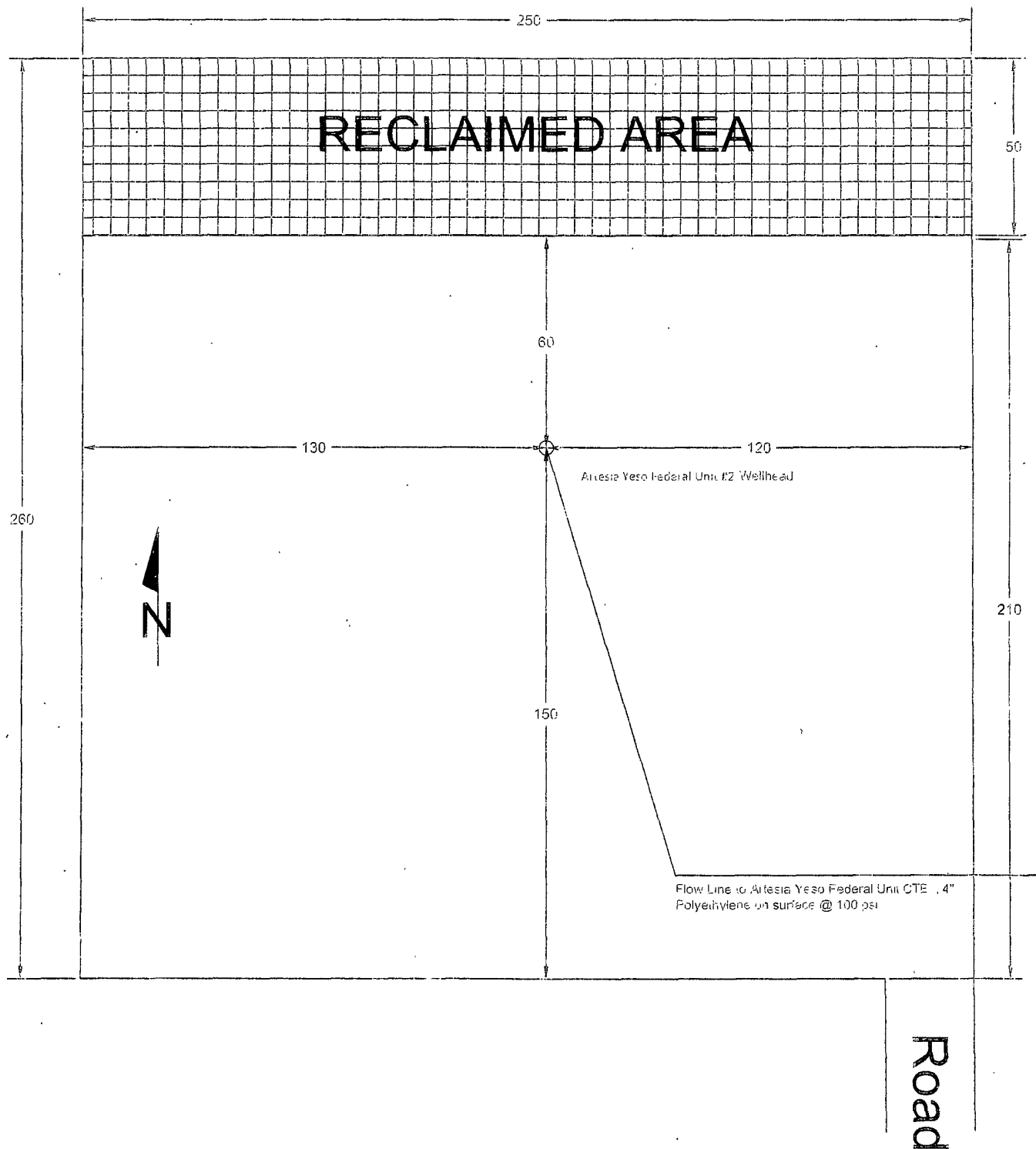
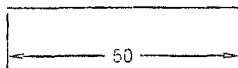




UNLESS OTHERWISE SPECIFIED		<b>MI SWACO</b>	
<small>         COMPANY: MI SWACO          10000 NORTH COURSE DRIVE HOUSTON, TEXAS 77067          PHONE: 281-241-1111          FAX: 281-241-1112          WWW: WWW.MISWACO.COM          E-MAIL: SALES@MISWACO.COM          SERVICE@MISWACO.COM          H&amp;P 345/OXY          SOLIDS CONTROL AND          DEWATERING PROPOSAL GA       </small>		<small>         DATE: 10-12-2011          DRAWN BY: E. ANDERSON          CHECKED BY: J. NTS          SCALE: 1" = 10'-0"       </small>	
<small>         COPYRIGHT 2011 MI SWACO. ALL RIGHTS RESERVED.          10/12/2011       </small>		<small>         10/12/2011       </small>	

# Artesia Yeso Federal Unit #2 Facilities Layout

All Units in Feet



## PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	OXY USA WTP LMTD PTNRSHP
LEASE NO.:	NM048344
WELL NAME & NO.:	9 Piglet 21 federal
SURFACE HOLE FOOTAGE:	488' FNL & 1574' FWL
BOTTOM HOLE FOOTAGE:	
LOCATION:	Section 21, T.17 S., R.28 E., NMPM
COUNTY:	Eddy County, New Mexico

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Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
  - Flowline sundry
  - Cave/Karst
- ☐ **Construction**
  - Notification
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  - Closed Loop System
  - Federal Mineral Material Pits
  - Well Pads
  - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
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  - Waste Material and Fluids
- ☐ **Production (Post Drilling)**
  - Well Structures & Facilities
  - Pipelines
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