District I
1625 N French Dr , Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St. Francis Dr , Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-101
May 27, 2004

Submit to appropriate District Office

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

[1] Operator Name and Address	[2] OGRID Number
Devon Energy Production Company, L.P. **20 N. Broadway** **Oklahoma City, OK 73102**	6137
	[3] API Number 30 - 045-34657

[5] Property Code	[5] Property Name	[6] Well No
19641	Northeast Blanco Unit	37B

[9] Proposed Pool 1	[10] Proposed Pool 2
Basin Dakota	Blanco Mesaverde

[7] Surface Location

UL or lot no	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	5	30N	7W		1,785	South	110	West	San Juan

[8] Proposed 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
H	6	30N	7W		2,560	North	1,000	East	San Juan

Additional Well Information

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
N	G	Rotary	Private	6,310'
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
N	8,344'	Dakota / Mesaverde		Unknown

Depth to Groundwater >100'	Distance from nearest fresh water well >1,000'	Distance from nearest surface water >1,000'

Pit: Liner. Synthetic ☒ 12 mils thick Clay ☐ Pit Volume._____bbls

Closed-Loop System ☐

Drilling Method:

Fresh Water ☒ Brine ☐ Diesel/Oil-based ☐ Gas/Air ☒

[21] Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12 ¼"	9 5/8"	32#	0-285'	200	Surface
8 ¾"	7"	23#	0-3,875'	575	Surface
6 ¼"	4 ½"	11.6#	0-TD	700	Surface

[22] Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone Describe the blowout prevention program, if any Use additional sheets if necessary.

NOTIFY AZTEC OCD 24 HRS.
PRIOR TO CASING & CEMENT

RCVD MAR 17 '08
OIL CONS. DIV.
DIST. 3

Hold C104
for Directional Survey
and "As Drilled" plat

[23] I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify that the drilling pit will be constructed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**

Sign:

Printed name. Melisa Castro

Title Senior Staff Operations Technician

E-mail Address: Melisa.castro@dvn.com

Date: 3-6-08 Phone: 405-552-7917

OIL CONSERVATION DIVISION

Approved by:

Title:

Approval Date: MAR 24 2008 Expiration Date: MAR 24 2010

Conditions of Approval Attached ☐

MAR 24 2008

District I
PO Box 1980, Hobbs NM 88241-1980
District II
PO Drawer KK, Artesia, NM 87211-0719
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
PO Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number	2 Pool Code	3 Pool Name
30-045-34657	71599/72319	Basin Dakota / Blanco Mesaverde

4 Property Code	5 Property Name	6 Well Number
19641	NEBU	37B

7 OGRID No.	8 Operator Name	9 Elevation
6137	Devon Energy Production Company, L.P.	6310

10 Surface Location

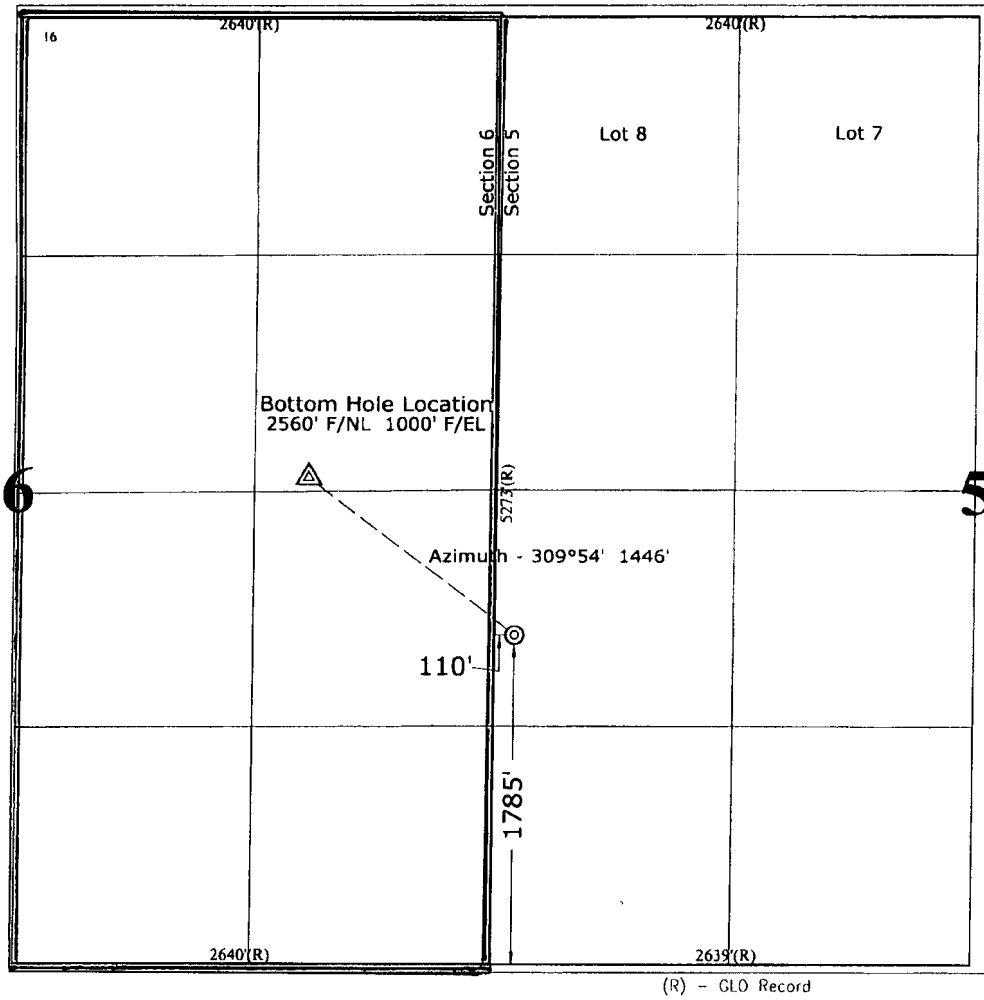
UL or Lot No	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	5	30 N	7 W		1785	SOUTH	110	WEST	SAN JUAN

11 Bottom Hole Location If Different From Surface

7 UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	6	30 N	7 W		2560	NORTH	1000	EAST	SAN JUAN

12 Dedicated Acres	13 Joint or Infill	14 Consolidation Code	15 Order No.
E/2 338.34			

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



(R) - GLO Record

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Signature

Melissa Castro
Printed Name

Sr. Staff Operations Tech
Title

March 6, 2008
Date

18 SURVEYOR CERTIFICATION

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.

June 12, 2007
Date of Survey

Signature and Seal of Professional Surveyor

GARY D. VANN NEW MEXICO 7016 REGISTERED PROFESSIONAL SURVEYOR

7016
Certificate Number

District I
1625 N. French Dr , Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☐
Type of action. Registration of a pit or below-grade tank ☒ Closure of a pit or below-grade tank ☐

Operator: Devon Energy Production Company, L P. Telephone. (405) 552-7917 e-mail address melisa.castro@dvn.com
Address: 20 N. Broadway, Oklahoma City, OK 73102
Facility or well name: NEBU 37B API #: 30-045-34657 U/L or Qtr/Qtr L Sec 5 T 30N R 7W
County: San Juan Latitude 36 83927 Longitude 107.60303 NAD: 1927 ☐ 1983 ☐
Surface Owner Federal ☒ State ☐ Private ☐ Indian ☐

Pit	**Below-grade tank**
Type Drilling ☒ Production ☐ Disposal ☐ Workover ☐ Emergency ☐ Lined ☒ Unlined ☐ Liner type. Synthetic ☒ Thickness 12 mil Clay ☐ Pit Volume bbl	Volume: bbl Type of fluid Construction material: Double-walled, with leak detection? Yes ☐ If not, explain why not.

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)	Less than 50 feet 50 feet or more, but less than 100 feet √ 100 feet or more	(20 points) (10 points) (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources)	Yes √ No	(20 points) (0 points)
Distance to surface water: (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)	Less than 200 feet 200 feet or more, but less than 1000 feet ✓ ✓ 1000 feet or more	(20 points) (10 points) (0 points)
	Ranking Score (Total Points)	10 pts.

If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location (check the onsite box if your are burying in place) onsite ☐ offsite ☐ If offsite, name of facility (3) Attach a general description of remedial action taken including remediation start date and end date. (4) Groundwater encountered: No ☐ Yes ☐ If yes, show depth below ground surface ft. and attach sample results.
(5) Attach soil sample results and a diagram of sample locations and excavations

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. **I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.**

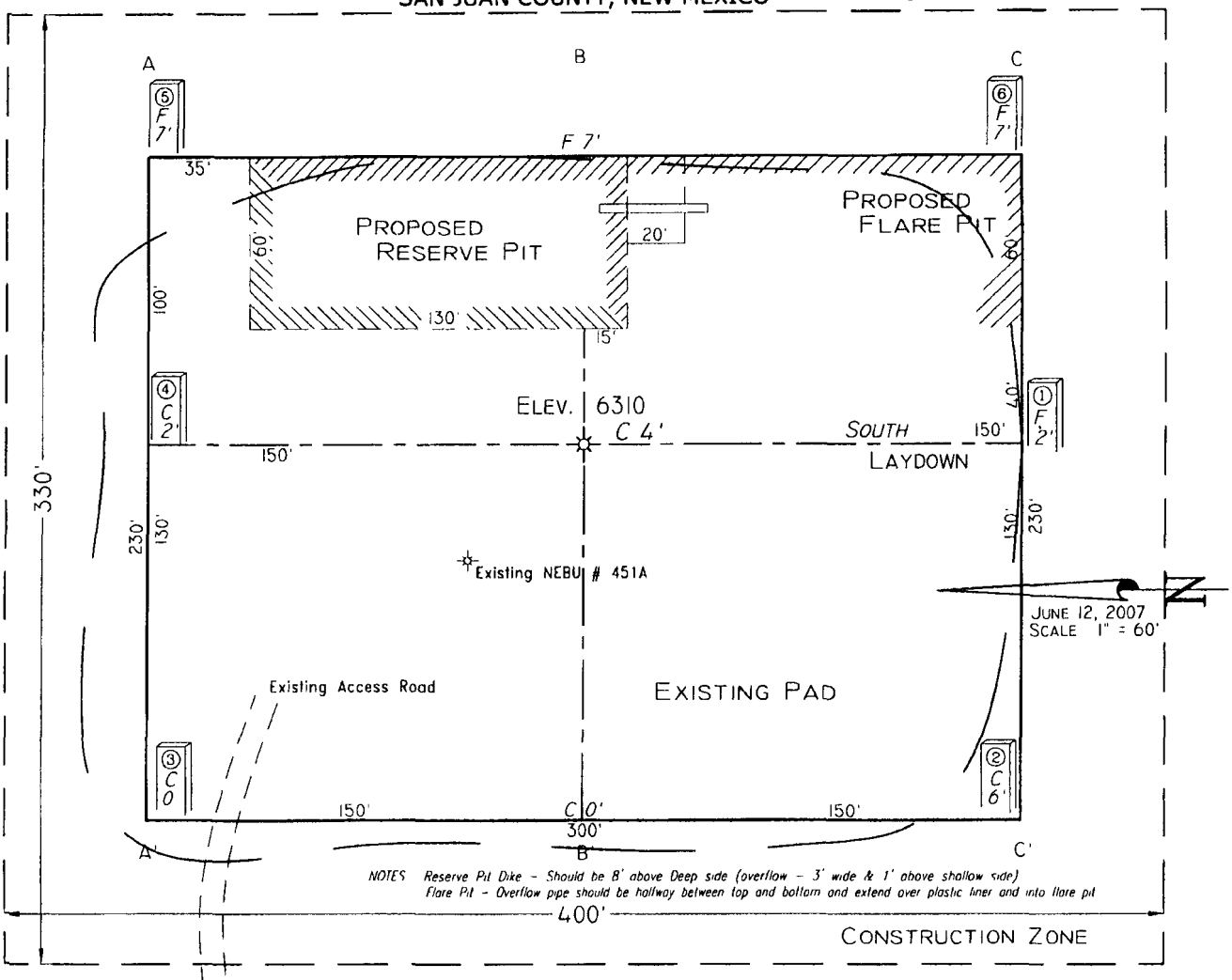
Date 3-6-08
Printed Name/Title Melisa Castro, Senior Staff Operations Technician Signature

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations

Approval
Printed Name/Title Signature Date.

PAD LAYOUT PLAN & PROFILE
DEVON ENERGY PRODUCTION COMPANY, L.P.
Nebu # 37B
1785' F/SL 110' F/WL
SEC. 5, T30N, R7W, N.M.P.M.
SAN JUAN COUNTY, NEW MEXICO

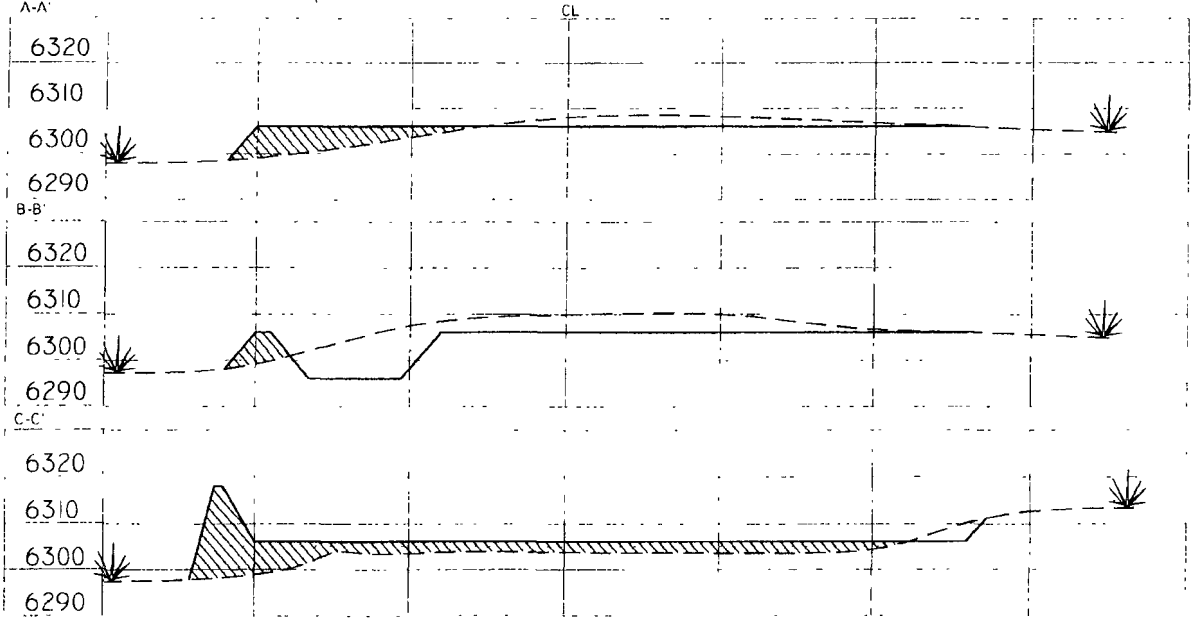
Lat: 36.83927°
Long: 107.60303° (83)



NOTES Reserve Pit Dike - Should be 8' above Deep side (overflow - 3' wide & 1' above shallow side)
Flare Pit - Overflow pipe should be halfway between top and bottom and extend over plastic liner and into flare pit

Area of Construction Zone - 330'x400' or 3.03 acres, more or less

SCALE 1"=60' -HORIZ
1"=40' -VERT



NOTE Contractor should call One-Call for location of any marked or unmarked buried pipelines or cables on well pad and/or access road at least two (2) working days prior to construction

Cuts and fills shown are approximate - final finished elevation is to be adjusted so earthwork will balance Corner stakes are approximate and do not include additional areas needed for sideslopes and drainages Final Pad Dimensions are to be verified by Contractor

VANN SURVEYS
P O Box 1306
Farmington, NM

NEBU 37B
SL: 1,785' FSL & 110' FWL, Unit L 5-30N-7W
BHL: 2,560' FNL & 1,000' FEL, Unit H 6-30N-7W
San Juan Co., NM

DRILLING PLAN

1. **ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS & ANTICIPATED WATER, OIL, GAS OR MINERAL FORMATIONS:**

Formation	TMD (ft)	TVD (ft)	Hydrocarbon/Water Bearing Zones
San Jose	Surface	Surface	
Ojo Alamo	2403	2128	Aquifer
Kirtland	2539	2239	
Fruitland	3115	2733	Gas
Fruitland 1st Coal	3317	2925	Gas
Pictured Cliffs Main	3615	3218	Gas
Lewis	3739	3342	Gas
Intermediate TD	3875	3478	
Huefanito Bentonite	4354	3957	Gas
Chacra / Otera	4739	4342	Gas
Cliff House	5521	5124	Gas
Menefee	5595	5198	Gas
Point Lookout	5858	5461	Gas
Mancos	6206	5809	Gas
Gallup	7226	6829	Gas
Greenhorn	7911	7514	
Graneros	7956	7559	Gas
Paguate	8109	7712	
Cubero	8124	7727	
Oak Canyon	8183	7786	
Encinal Canyon	8201	7804	

Lower Encinal Canyon	8249	7852	
Burro Canyon	8269	7872	
Morrison	8284	7887	
TD	8344	7947	

*All shows of fresh water and minerals will be adequately protected and reported.

2. PRESSURE CONTROL EQUIPMENT:

All well control equipment shall be in accordance with Onshore Order #1 for 2M systems.

The minimum specifications for pressure control equipment that will be provided are included on the attached schematic diagram, with a size of 2", and pressure ratings.

- 2000# BOP With Pipe Rams and 2000# BOP With Blind Rams

Auxiliary equipment to be used:

- Upper kelly cock with handle available.

The manifold includes appropriate valves and adjustable chokes. The kill line will have one check valve. Ram type preventers will be pressure tested to full working pressure (utilizing a test plug) or 70% of the internal yield pressure (without a test plug) at:

- Initial installation
- Whenever any seal subject to test pressure is broken
- Following related repairs
- At 30 day intervals

Pipe and blind rams shall be activated each trip.

A BOPE pit level drill will be conducted weekly for each drilling crew.
All tests and drills will be recorded in the drilling log.

The accumulator will have sufficient capacity to close all rams and retain 200 psi above pre-charge pressure without the use of closing unit pumps.

Master controls will be at the accumulator. Anticipated bottom hole pressure is 3400 psi.

3. CASING & CEMENTING PROGRAM:

A. The proposed casing program will be as follows:

TMD	TVD	Hole Size	Size	Grade	Weight	Thread	Condition
0-285'	0-285'	12-1/4"	9-5/8"	H-40	32#	STC	New
0-3875	0-3875	8-3/4"	7"	K-55	23#	LTC	New

0- TD	0- TD	6-1/4"	4-1/2"	J-55	11.6 #	LTC	New

Casing Size	Collapse Resistance	Internal Yield	Body Yield
9 5/8"	1400 psi	2270 psi	254K psi
7"	3270 psi	4360 psi	366K psi
4 ½"	4960 psi	5350 psi	184K psi

The 9-5/8" surface pipe will be tested to 750 psi. All casing strings below the surface shoe shall be pressure tested to 0.22 psi/ft. of casing string length or 1500 psi, whichever is greater, but not to exceed 70% minimum internal yield.

Surface: The bottom three joints of the surface casing will have a minimum of one centralizer per joint and one centralizer every joint thereafter (Total 5 centralizers estimated)

Intermediate: The bottom three joints of the 7" casing will have a minimum of one centralizer per joint and one centralizer every fifth joint thereafter to above Ojo Alamo with turbolizers below and throughout the Ojo Alamo. (Total 12 centralizers, 3 turbolizers estimated). In some situations an ACP and DV tool may be run.

Production: The bottom three joints will have a minimum of one centralizer per joint and one centralizer every fifth joint to 3500' (estimated 25 centralizers used). Centralizers will be open bow spring or basket bow spring type. In some situations an ACP and DV tool may be run.

B. The proposed cementing program will be as follows:

Surface String: Cement will be circulated to surface.

Lead: 200 sx Class "B" with 100% Standard Cement, 2.00% CaCl2, .25 #/sx Flocele. Density: 15.6 lb/gal; Yield: 1.18 cuft/sx; Water: 5.24 gal/sx
* ***Minor variations possible due to existing conditions***

Intermediate String: Cement will be circulated to surface.

Lead: 500 sx 50/50 Poz, Yd-1.45, Water Gal/sx 6.8, Mixed @ 13ppg Foamed W/ N2 Down To 9.0# Additives 2% Gel, 0.2% Versaset, 0.1% Diacel Lwl.
Tail: 75 sx 50/50 Poz, Yd-1.45, Water Gal/Sk 6.8, Additives 2% Gel, 0.2% Versaset, 0.1% Diacel Lwl.
* ***Minor variations possible due to existing conditions***

If hole conditions dictate, an alternate, cement design will be used:

Lead: 575 sx 50/50 Poz with 50% Class B Cement, 50% San Juan Poz, .4% Halad-344, .1% CFR-3, 3% Bentonite, 5#/sx Gilsonite, .25#/sx Flocele. Density: 13.0 lb/gal; Yield: 1.46 cuft/sx; Water: 6.42 gal/sx
Tail: 75 sx 50/50 Poz with 94#/sx Standard Cement, 0.3%

Halad-344, .25 #/sx Flocele. Density: 15.6 lb/gal; Yield: 1.18 cuft/sx; Water: 5.23 gal/sx

* ***Minor variations possible due to existing conditions***

Production String: **TOC designed to circulate 1000' into intermediate string, cement will tie into the intermediate casing as a minimum. Volumes may vary with actual well characteristics.**

Lead: 250 sx 50/50 Poz with 2% Gel, 0.2% Halad, 0.1% CFR-3, 5 #/sx Gilsonite, 0.25 #/sx Flocele. Mixed at 13 ppg, 1.47 ft 3/sx foamed to 9 ppg, 2.18 ft 3/sx.
Tail: 450 sx 50/50 Poz with 50% Standard Cement, 50% San Juan Poz, 3% Bentonite, 1.40% Halad-9, .10% CFR-3, .10% HR-5, 5 #/sx Gilsonite, 0.25 #/sx Flocele. Density: 13.0 lb/gal; Yield: 1.47 cuft/sx; Water: 6.35 gal/sx *

* ***Minor variations possible due to existing conditions***

Actual volumes will be calculated and adjusted with caliper log prior to cementing.

4. DRILLING FLUIDS PROGRAM:

TMD Interval	TVD Interval	Type	Weight (ppg)	Viscosity	pH	Water Loss	Remarks
0-285'	0-285'	Spud-foam	8.4-9.0	29-70	8.0	NC	FW gel, LSND or stiff foam
285'-3,875'	285'-3,478'	Water/ Mud	8.4-9.0	29-70	8.0	NC	
3,875' – TD	3,478' – TD	Air/N2 or Mud	8.5-9.0*	30-50	8.0-10.0	8-810cc @ TD	Low solids-non-dispersed. * min Wt. to control formation pressure

NC = no control

Sufficient quantities of mud material will be maintained on site or be readily accessible for the purpose of assuring well control. SPR will be recorded on daily drilling report after mudding up. Visual mud monitoring will be conducted during operations.

5. EVALUATION PROGRAM:

Logs: Density
Neutron
Induction

In the event open hole logs are not run in the well, a cased hole evaluation log will Be run.

Survey: Deviation surveys will be taken every 500' from 0-TD or first succeeding bit change. The hole will be air drilled from intermediate casing point to TD. The

equipment used in this type of operation will not allow for single shot surveys without considerable operational delays therefore a survey will be taken at TD. Similar wells in this area have not shown significant deviation in this section of the hole.

Cores: None anticipated.

DST's: None anticipated.

6. ABNORMAL CONDITIONS:

The Fruitland Coal will be encountered in the 8-3/4" hole. Estimated formation pressure is 300 psi. No other abnormal pressures and/or temperatures are expected. No hydrogen sulfide should be present.

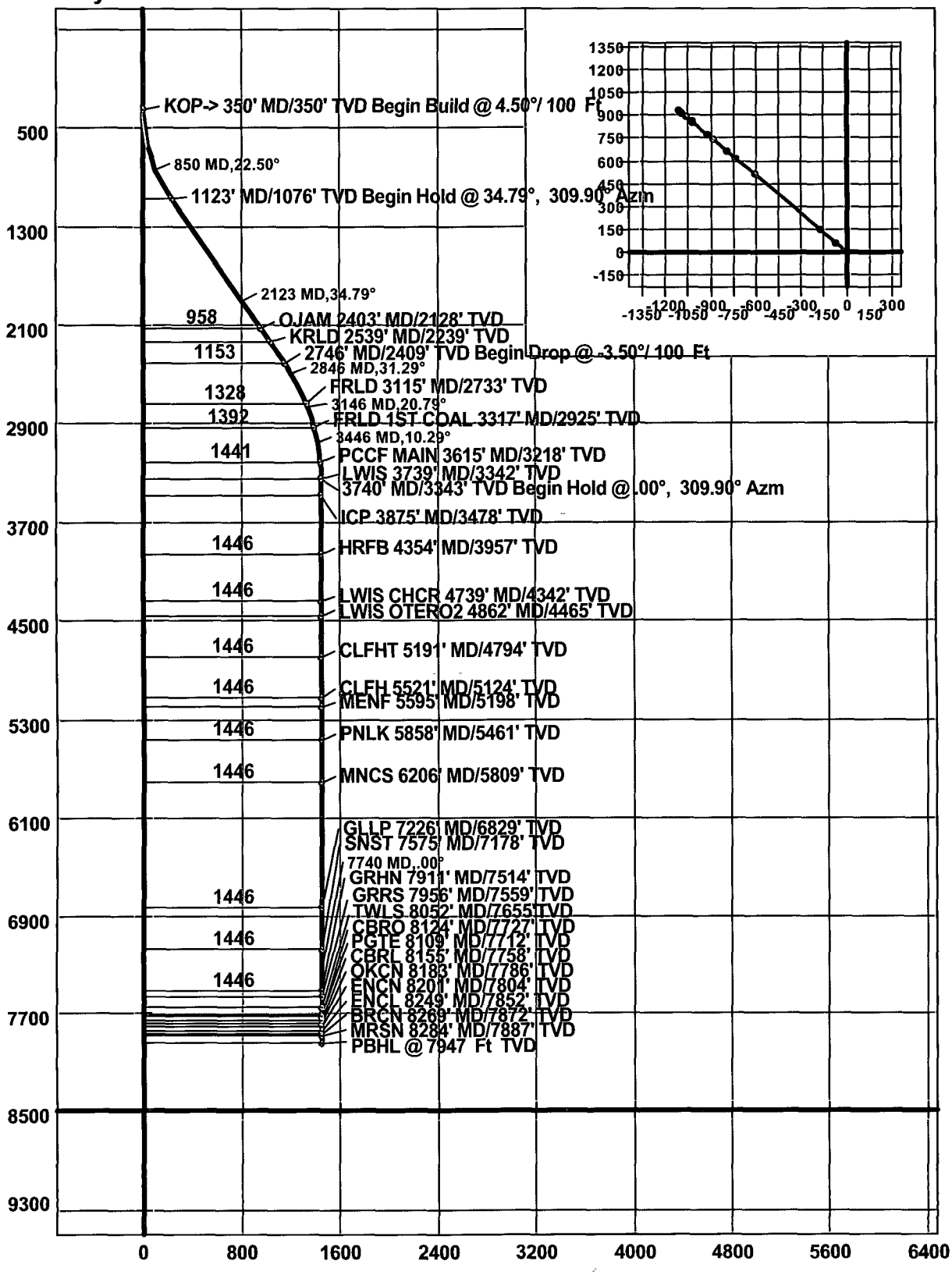
7. OTHER INFORMATION:

The anticipated starting date and duration of the operation will be as follows:

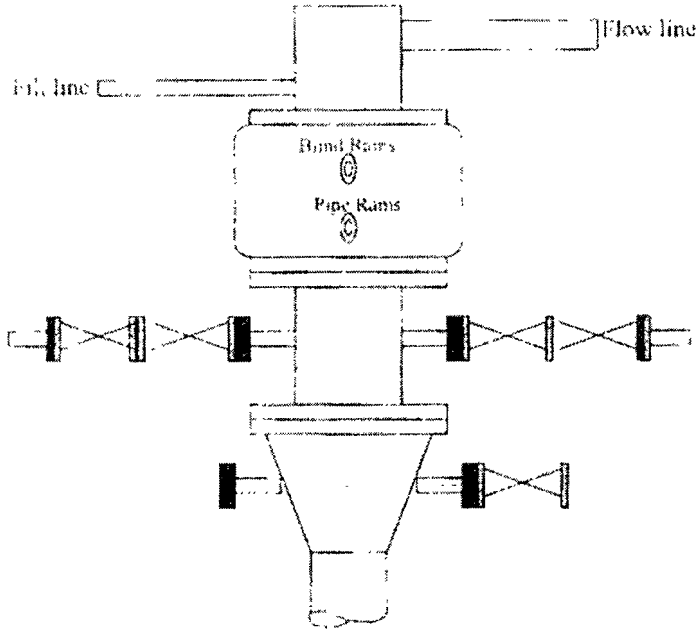
Starting Date:	Upon Approval
Duration:	20 days

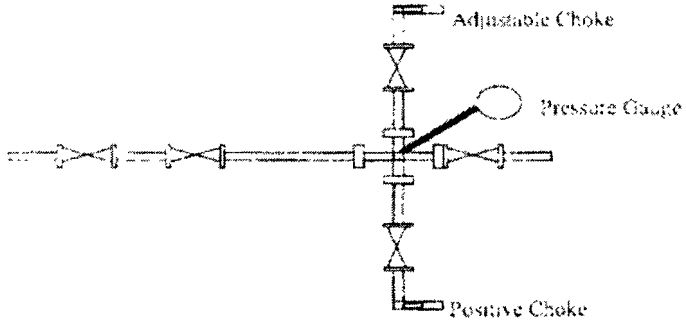
If the well is completed as a dry hole or as a producer, Well Completion or Recompletion Report and Log (Form 3160-4) will be submitted within 30 days after completion of the well or after completion of operations being performed, in accordance with 43 CFR 3160. Copies of all logs, core descriptions, core analyses, well test data, geologic summaries, sample descriptions, daily drilling reports, daily completion reports, and all other surveys or data obtained and compiled during the drilling, completion, and/or workover operations, will be submitted directly to the Authorized Officer or filed with Form 3160-4.

Company: DEVON ENERGY
Lease/Well: NEBU 37 B
Location: SAN JUAN CO.
State/Country: NM

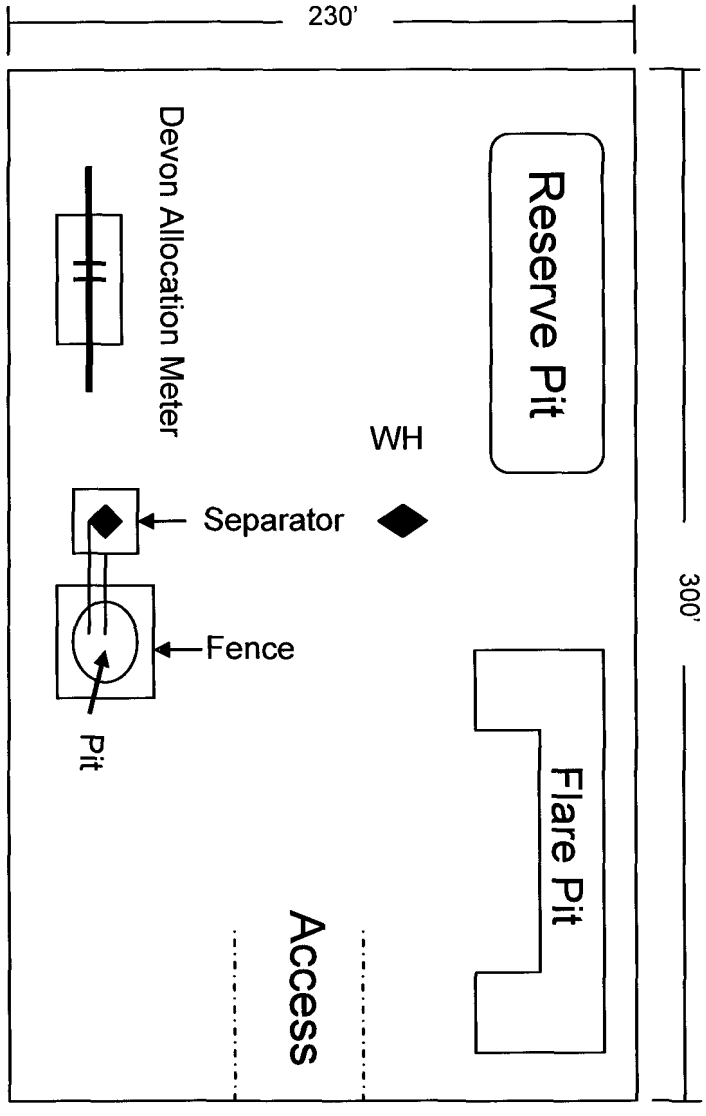


Well Control Equipment
2,000 psi Configuration





All well control equipment designed to meet or exceed the Onshore Oil and Gas Order No. 2, BLM 43 CFR 3160 requirements for 2M systems.



All location will have a gas separator, and an 80 bbl pit (double wall, double bottom) enclosed with a fence. It is the responsibility of Devon Energy Production Company, L.P. to install the meter run. It could be on either end of pad, but will always be on the working side of the pad.