Oxy USA, Inc.
Sheep Mountain Unit 2-10-O
API No. 05-055-06062
SHL: 1,830’ FNL 1,711’ FWL (SEW/4 NE/4)
BHL: 168’ FNL 2,569’ FWL (NE/4 NW/4)
Sec. 15 T27S R70W
Huerfano County, Colorado
Surface Ownership: Fee
Federal Mineral Lease: COC010488
Federal Participating Area: COC47683C
Sheep Mountain Federal Unit: COC47683X

DAKOTA FORMATION RECOMPLETION PROCEDURES

GL: 8,469’ KB: 20’

TD:	4,499’	3,499’
PBTD:	4,188’	3,296’

SURFACE CASING: EXISTING CASING — SET@ 299' (9 JOINTS) , OD=10 3/4", 40.5 #/FT, K-55 BTC, WITH 300 SX CLASS H + 2% CaCl

PRODUCTION CASING: EXISTING CASING — SET @ 4207' (114 JOINTS), OD = 7 5/8", 26.4 #/FT, K-55 BTC WITH 220 SX CLASS H + 450 SX 50/50 POZMIX CIRCULATED 7 BBLS

TUBING: EXISTING TUBING — SET @3906' (119 JTS), OD = 4 1/2", 11.6 #/FT, K-55 TK-99 COATING + NIPPLES + SUBS

PACKER SET @ 3,926’

CBL RUN ON : 5/13/82 DIGITAL COPY ON FILE

FORMATION	LOG TOP (MD)
APACHE CREEK	1,260’
GREENHORN	3,110’
GRANEROS	3,193’
DAKOTA	3,342’
MORRISON	3,626’
ENTRADA	3,964’
SANGRE DE CRISTO	4,115’

CURRENT PERFORATIONS

		JSPF
ENTRADA	3,890’ – 4,076’	4
	4,098’ – 4,104’	4
TOTAL PERFORATIONS: 768		

MAXIMUM DEVIATION: 50^{o} 45” @ 2300 (MD)

Preliminary Prognosis

Test Anchors – Reset if needed.

Check Entrada Pressure - Shut-in and record pressures prior to rig up.

Disconnect wellhead from flowline, blind it off; lockout/tag valves on compressor header.

Move in pulling unit and ancillary equipment, set frac tanks.

Set Otis S-2 profile @ 51.16', 3.81" ID, remove wellhead and set BOP, test to 2,000 psi.

Rig up pulling unit.

On wireline set profile nipple (3.725" ID) in permanent packer set @ 3,934'.

Pull out of hole with 4 1/2" IPC string, 119 joints. Change rams to 2 7/8".

Pick up RBP on 2 7/8" work string and run in hole to 3,900'. Set RBP.

Circulate hole with FW + 2 % KCL. Dump 5 sxs of sand on top of plug, come out of hole, stack work string.

Rig up lubricator, go in with perf guns and get on depth based on 1/22/82 compensated neutron – formation density run by Schlumberger.

Preliminary Proposed Perforations:

Top	Bottom	Depth
3,350’	3,370’	20’
3,390’	3,470’	80’
3,490’	3,620’	130’
		230’ TOTAL
Density 4 JSPF		
Total Shots = 920		

Perforation Details:

3 1/8" gun barrel
3 1/8" GeoDynamic 19 gram RDX charges
.51" entrance hole
42.07" penetration

Proposed Procedures:

Rig up coil tubing unit, run to 3,630'. Bow well dry.

Shut-in well for 24 hours – Record pressure at surface.

Rig down pulling unit.

Rig up portable tester, keep will on test for a minimum of 7 days.

Rig up pulling unit.

Kill well with FW + 2 % KCL.

Go in with 2-7/8" work string circulated sand and retrieve RBD set @ 3,900'. Change rams to 4-1/2".

Pick up 4-1/2" production tubing. Run in hole and stab in permanent packer @ 3,920'.

Remove profile nipple set @ 3,934'. Make sure well is dead. Unstab.

Come out of the hole with 4-1/2" tubing.

Pick up 7-5/8" packer and on/off tool. Run in the hole with 4-1/2" production tubing.

Set packer @ 3,310'

Get off packer. Circulate annulus with 9.5 fluid + corrosion inhibitor. Latch back on packer.

Rig up coil tubing unit. Run in to 4,120'. Blow well dry. Come out of hole.

Set surface nipple.

Remove BOP. Set wellhead.

Rig down pulling unit.

Clean location.