

NM OIL CONSERVATION
ARTESIA DISTRICT State of New Mexico
Energy Minerals and Natural Resources

Form C-101
 Revised July 18, 2013

District I
 1625 N. French Dr., Hobbs, NM 88240
 Phone: (575) 393-6161 Fax: (575) 393-0720

District II
 811 S. First St., Artesia, NM 88210
 Phone: (575) 748-1283 Fax: (575) 748-9720

District III
 1000 Rio Brazos Road, 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

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

AMENDED REPORT

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

¹ Operator Name and Address OXY USA Inc. P.O. Box 50250 Midland, TX 79710		² OGRID Number 16696
⁴ Property Code 306384		³ API Number 30-015-34205
⁵ Property Name Esperanza 24		⁶ Well No. 1

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
F	24	22S	26E		1685	North	1935	West	Eddy

*** Proposed Bottom Hole Location**

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
D	24	22S	26E		669	North	1012	West	Eddy

9. Pool Information

⁹ Pool Name Carlsbad Wolfcamp, South (Gas) - 74200	⁹ Pool Code Carlsbad Strawn, South (Gas) - 74120
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Additional Well Information

¹¹ Work Type P	¹² Well Type G	¹³ Cable/Rotary R	¹⁴ Lease Type P	¹⁵ Ground Level Elevation 3171'
¹⁶ Multiple W-DHC	¹⁷ Proposed Depth TD 11910' PB 11050'	¹⁸ Formation Wolfcamp-Strawn	¹⁹ Contractor WA	²⁰ Spud Date After Permit Approval
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Swnt	17 1/2"	13 3/8"	43	429'	450	Swnt-Cinc
Int-1	9 7/8"	9 5/8"	36	1950'	815	Swnt-Cinc
Int-2	7"	7"	26	8936' 11950'	429	1620'-TS
PROO 6 1/4" 4 1/2" Casing/Cement Program: Additional Comments					300	8800'-CBL
CIBP@ 11385' w/ 30% cut to 11050' See attached for procedure.						

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	

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 I have complied with 19.15.14.9 (A) NMAC <input checked="" type="checkbox"/> and/or 19.15.14.9 (B) NMAC <input checked="" type="checkbox"/> if applicable. Signature: <i>David Stewart</i>	OIL CONSERVATION DIVISION	
	Approved By: <i>[Signature]</i>	
Printed name: David Stewart	Title: Sr. Regulatory Advisor	
Title: Sr. Regulatory Advisor	Approved Date: 8-12-15	Expiration Date: 8-12-17
E-mail Address: david_stewart@oxy.com		
Date: 8/5/15	Phone: 432-685-5717	Conditions of Approval Attached

APPLICATION FOR DOWNHOLE COMMINGLING

Operator OMY USA Inc. P.O. Box 50250 Midland, TX 79710
 Lease Espereanza 24 Well No. 1 Unit Letter-Section-Township-Range F-24-22S-26E County Eddy
 OGRID No. 16696 Property Code _____ API No. 30-015-34265 Lease Type: Federal State Fee

DATA ELEMENT	UPPER ZONE	INTERMEDIATE ZONE	LOWER ZONE
Pool Name	<u>Carlsbad Wofford South (Gas)</u>		<u>Carlsbad Strawn South (Gas)</u>
Pool Code	<u>74200</u>		<u>74120</u>
Top and Bottom of Pay Section (Perforated or Open-Hole Interval)	<u>9250-9552'</u>		<u>10305-10400'</u>
Method of Production (Flowing or Artificial Lift)	<u>Flowing</u>		<u>Flowing</u>
Bottomhole Pressure (Note: Pressure data will not be required if the bottom perforation in the lower zone is within 150% of the depth of the top perforation in the upper zone)	<u>4400</u>		<u>4780</u>
Oil Gravity or Gas BTU (Degree API or Gas BTU)	<u>1200</u>		<u>1200</u>
Producing, Shut-In or New Zone	<u>New</u>		<u>New</u>
Date and Oil/Gas/Water Rates of Last Production (Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data.)	Date: <u>See Production</u> Rates: <u>Type Curve</u>	Date: _____ Rates: _____	Date: <u>See Production</u> Rates: <u>Type Curve</u>
Fixed Allocation Percentage (Note: If allocation is based upon something other than current or past production, supporting data or explanation will be required.)	Oil <u>85</u> % Gas <u>50</u> %	Oil _____ % Gas _____ %	Oil <u>15</u> % Gas <u>50</u> %

ADDITIONAL DATA

Are all working, royalty and overriding royalty interests identical in all commingled zones? Yes No _____
 If not, have all working, royalty and overriding royalty interest owners been notified by certified mail? Yes _____ No _____
 Are all produced fluids from all commingled zones compatible with each other? Yes No _____
 Will commingling decrease the value of production? Yes _____ No
 If this well is on, or communitized with, state or federal lands, has either the Commissioner of Public Lands or the United States Bureau of Land Management been notified in writing of this application? Yes _____ No
 NMOCD Reference Case No. applicable to this well: _____

Attachments:

- C-102 for each zone to be commingled showing its spacing unit and acreage dedication.
- Production curve for each zone for at least one year. (If not available, attach explanation.)
- For zones with no production history, estimated production rates and supporting data.
- Data to support allocation method or formula.
- Notification list of working, royalty and overriding royalty interests for uncommon interest cases.
- Any additional statements, data or documents required to support commingling.

PRE-APPROVED POOLS

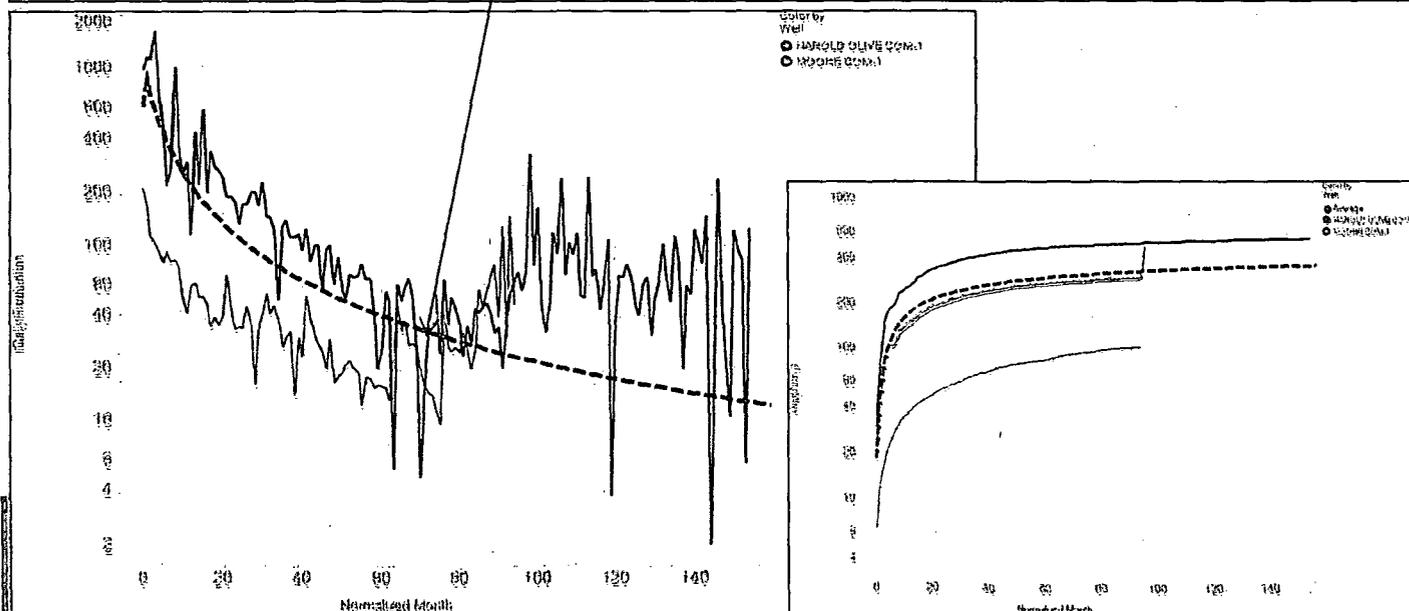
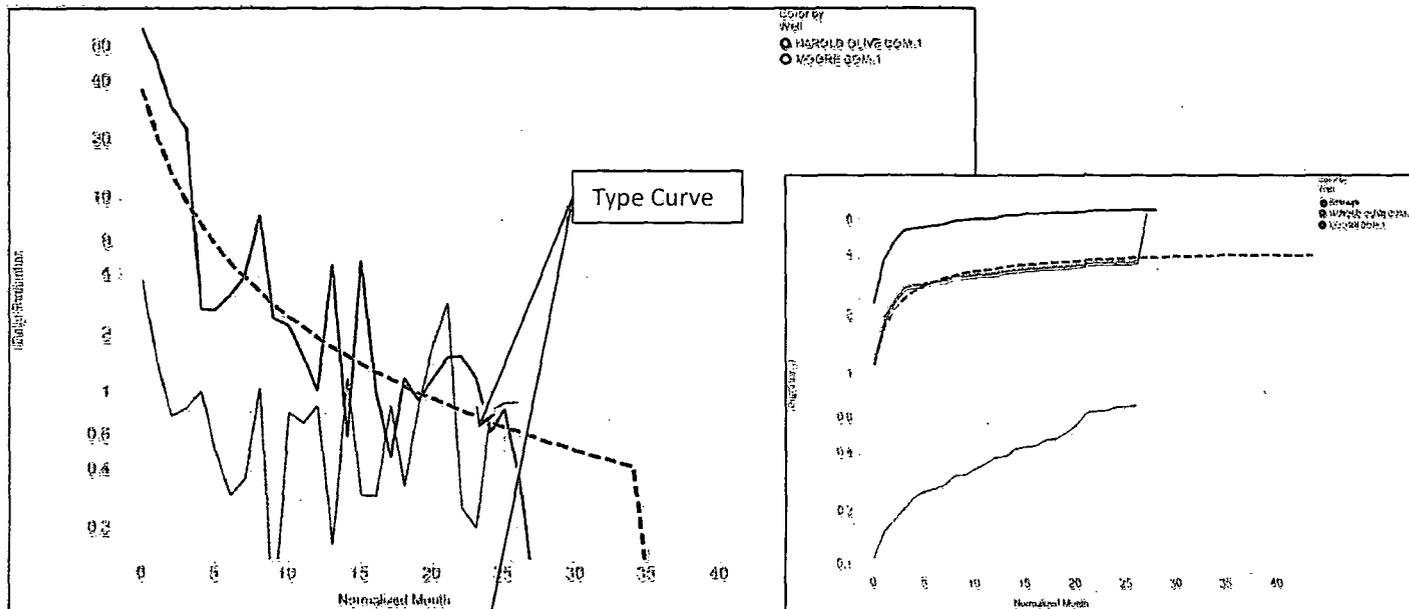
If application is to establish Pre-Approved Pools, the following additional information will be required:

- List of other orders approving downhole commingling within the proposed Pre-Approved Pools
- List of all operators within the proposed Pre-Approved Pools
- Proof that all operators within the proposed Pre-Approved Pools were provided notice of this application.
- Bottomhole pressure data.

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

SIGNATURE David Stewart TITLE Sr. Reg. Advisor DATE 8/5/15
 TYPE OR PRINT NAME David Stewart TELEPHONE NO. (432) 685-5217
 E-MAIL ADDRESS david_stewart@omy.com

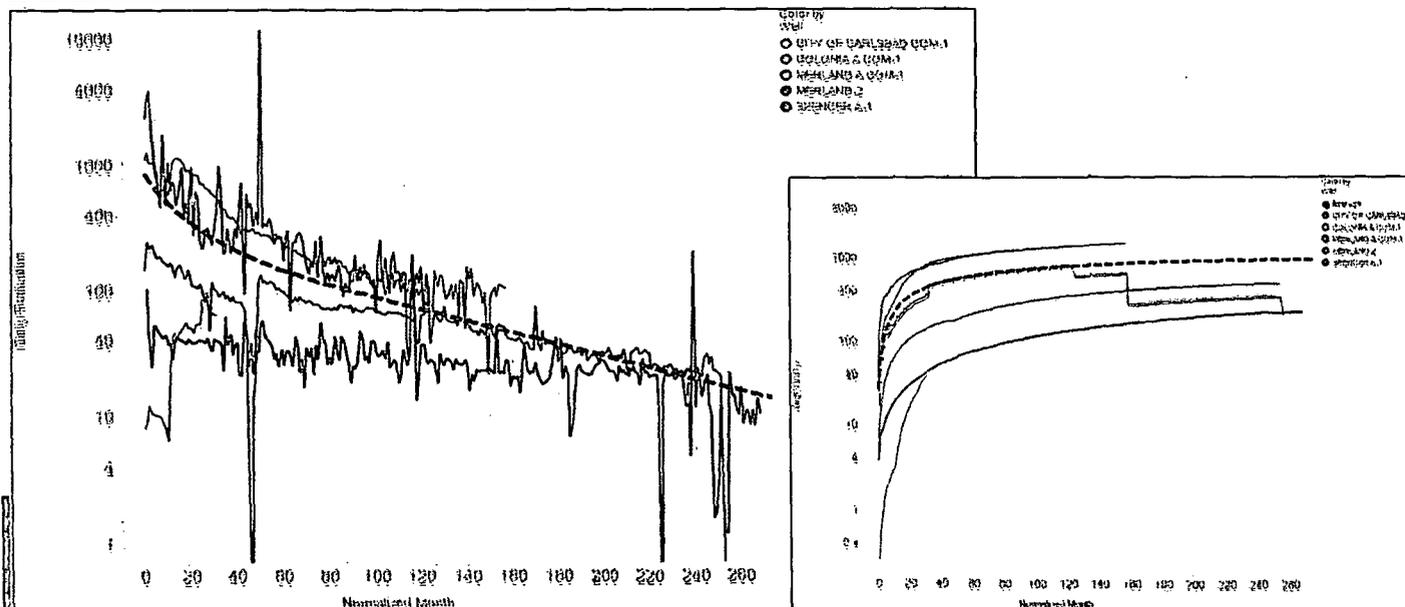
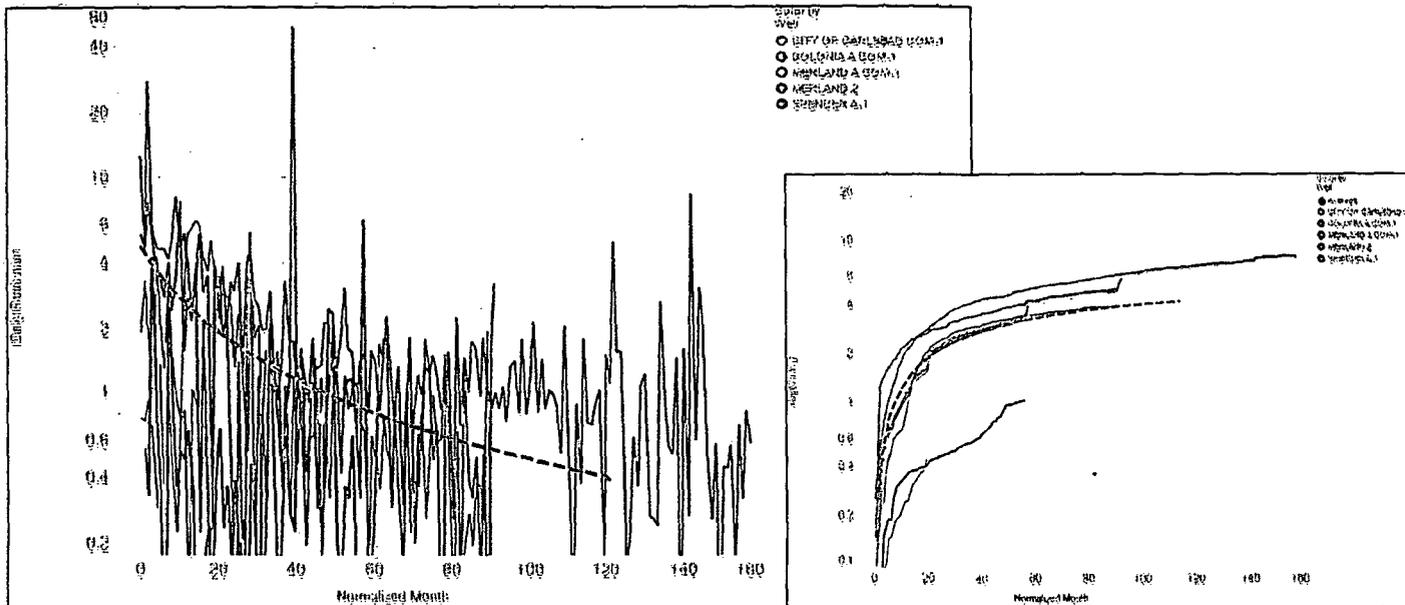
Esperanza 24-1 Recompletion Production Type Curves - Wolfcamp



Wolfcamp	Recompletion
EUR oil, Mbo	4.0
Peak rate ₃₀ , bopd	36
D _p %/year	96%
D _{min} %/year	10%
b-factor	0.6
q _p , bopd	0.4
EUR gas, M Miscf	422
Peak rate ₃₀ , MGFD	350
D _p %/year	73%
D _{min} %/year	6
b-factor	0.80
q _p , MGFD	1
EUR water, Mbw	0.43
WOR, lbw/bo	.1
EUR MBOE	74



Esperanza 24 1 Recompletion Production Type Curves - Strawn



Strawn	Recompletion
EUR oil, Mbo	4.4
Peak rate ₃₀ , bopd	5
D _p , %/year	48%
D _{min} , %/year	6%
b-factor	0.85
q _p , bopd	0.4
EUR gas, MMscf	1,014
Peak rate ₃₀ , MCFD	869
D _p , %/year	47%
D _{min} , %/year	12%
b-factor	0.85
q _p , MCFD	1
EUR water, Mbw	3.0
WOR, bw/b0	0.7
EUR MBOE	173

1. MIRU PU. NDWH NUBOP. Scan tubing OOH and lay down.
2. MIRU WL unit. Run gauge ring and then set 4-1/2" CIBP at 11385', M&P 30sx cmt on top of CIBP. RD WL.
3. Also set 4-1/2" CIBP at 10,536'. M&P 30 sx cmt on top of CIBP. RD WL.
4. Pressure test casing to 7000 psi for 30 minutes. Pressure drop should be less than 700 psi.
5. Perforate 3SPF @ 10395-10400', 10305-10310' (30 holes), 120 phasing using 3-1/8" guns loaded with 23 gm charge.
6. Dump bail 15% HCL acid at 10,395'. Break down perforation at 3 bpm with 20 bbls fsw. Make sure perforations will break down before calling out frac crew.
7. NDBOP NU frac stack. RDMO PU.
8. MIRU frac crew. Frac well per below schedule. Maximum pressure 6000 psi, 40-50 bpm.

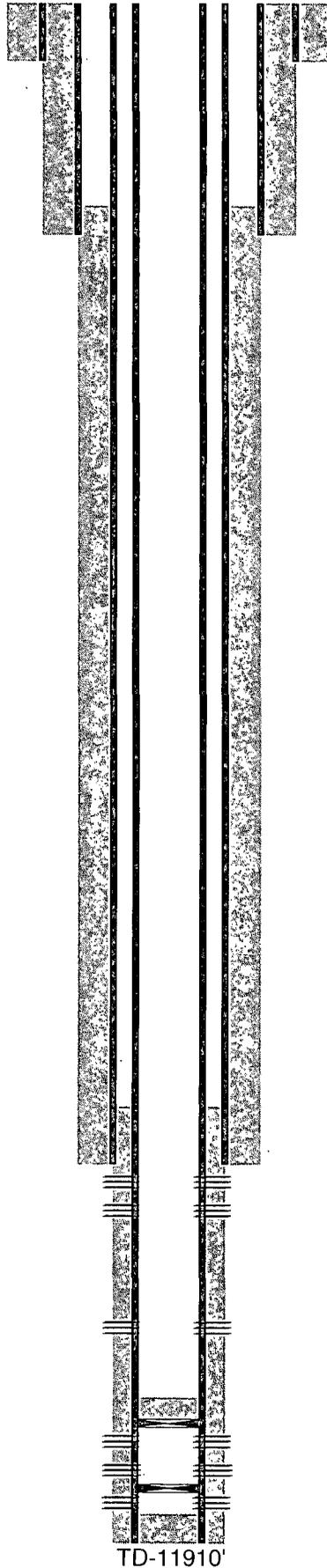
Stage	Description	Fluid Vol. gallons	Cum. Vol. gallons	Fluid Type	Rate bpm	Proppant Conc.	Sand Vol.	Total Sand	Proppant Type
0	15% HCL	2000	2000	acid	10	-	-	-	-
1	15# linear	7500	9500	linear fluid	40	-	-	-	-
2	15# X-link	15000	24500	x-link fluid	40	-	-	-	-
3	15# X-link	3000	27500	x-link fluid	40	0.5	1500	1500	20/40 white
4	15# X-link	5000	32500	x-link fluid	40	1	5000	6500	20/40 white
5	15# X-link	7000	39500	x-link fluid	40	1.5	10500	17000	20/40 white
6	15# X-link	8000	47500	x-link fluid	40	2	16000	33000	20/40 white
7	15# X-link	8000	55500	x-link fluid	40	2.5	20000	53000	20/40 white
8	15# X-link	8000	63500	x-link fluid	40	3	24000	77000	20/40 white
9	15# X-link	8000	71500	x-link fluid	40	3.5	28000	105000	20/40 white
10	Displace	4000	75500	15# linear	40	-	-	105000	-

9. Do not over-flush frac: cut short by one barrel. Bypass tub at 3#.
10. MIRU WL unit. Set flow through CBP at 9650'. Pressure test to 5000 psi for 5 minutes.
11. Perforate 3SPF@ 9550-9552', 9500-9502', 9450-9452', 9400'-9402', 9350-9352', 9300-9302', 9250-9252' (42 holes), 120 phasing 3-1/8" guns loaded with 23 gm charge
12. Dump bail acid at 9,550'. Break down perforations with 20 bbls fsw.
13. Frac well per below schedule. Maximum pressure 6000 psi, 50-60 bpm.

Stage	Description	Fluid Vol. gallons	Cum. Vol. gallons	Fluid Type	Rate bpm	Proppant Conc.	Sand Vol.	Total Sand	Proppant Type
0	15% HCL	2000	2000	acid	10	-	-	-	-
1	15# linear	10000	12000	linear fluid	50	-	-	-	-
2	15# X-link	25000	37000	x-link fluid	50	-	-	-	-
3	15# X-link	5000	42000	x-link fluid	50	0.5	2500	1500	20/40 white
4	15# X-link	10000	52000	x-link fluid	50	1	10000	11500	20/40 white
5	15# X-link	15000	67000	x-link fluid	50	1.5	22500	34000	20/40 white
6	15# X-link	15000	82000	x-link fluid	50	2	30000	64000	20/40 white
7	15# X-link	15000	97000	x-link fluid	50	2.5	37500	101500	20/40 white
8	15# X-link	15000	112000	x-link fluid	50	3	45000	146500	20/40 white
9	15# X-link	15000	127000	x-link fluid	50	3.5	52500	199000	20/40 white
10	Displace	4000	131000	15# linear	50	-	-	199000	-

14. SI well. RDMO frac equipment.
15. Lubricate tubing hanger in well with back pressure valve.
16. Remove top part of frac stack, leaving lower master valve closed.
17. RU flow back iron and equipment.
18. Lubricate tubing hanger and back pressure valve out of tubing head.
19. Open well to flowback equipment on 12/64" choke. Flow well up casing.
20. Open choke per PE.
21. Flow well to flowback equipment until cleans up.
22. SI well when fluids cleaned-up. Lubricate tubing hanger with BPV.
23. Install production tree on top of master valve.
24. Contact production department to put well to sales.
25. After well starts liquid loading due to flow up casing, SI well. MIRU PU.
26. ND tree. Set tubing hanger with BPV. Remove master valve.
27. NUBOP. Remove hanger and BPV.
28. RIH with 3-3/4" bit and 3-1/16" drill collars. Drill CBP at 9650' and clean out, TOH.
29. Rerun same 2-3/8" production tubing (bad joints replaced) with NC on bottom, one joint, SN then remainder of tubing.
30. Place SV in SN and pressure test tubing to 6000 psi every 20 stands as RIH. Replace tubing as needed.
31. Land tubing, remove SV, NU production tree, RDMO. Contact lease operator to put well to production.

OXY USA Inc. - Proposed
Esperanza 24 #1
API No. 30-015-34205



17-1/2" hole @ 429'
13-3/8" csg @ 429'
w/ 450sx-TOC-Surf-Circ

12-1/4" hole @ 1950'
9-5/8" csg @ 1950'
w/ 815sx-TOC-Surf-Circ

8-3/4" hole @ 8986'
7" csg @ 8986'
w/ 429sx-TOC-1620'-TS

Perfs @ 9250-9552'

Perfs @ 10305-10400'

6-1/4" hole @ 11910'
4-1/2" csg @ 11900'
w/ 300sx-TOC-8800'-CBL

Perfs @ 11437-11594'
Perfs @ 11736-11822'

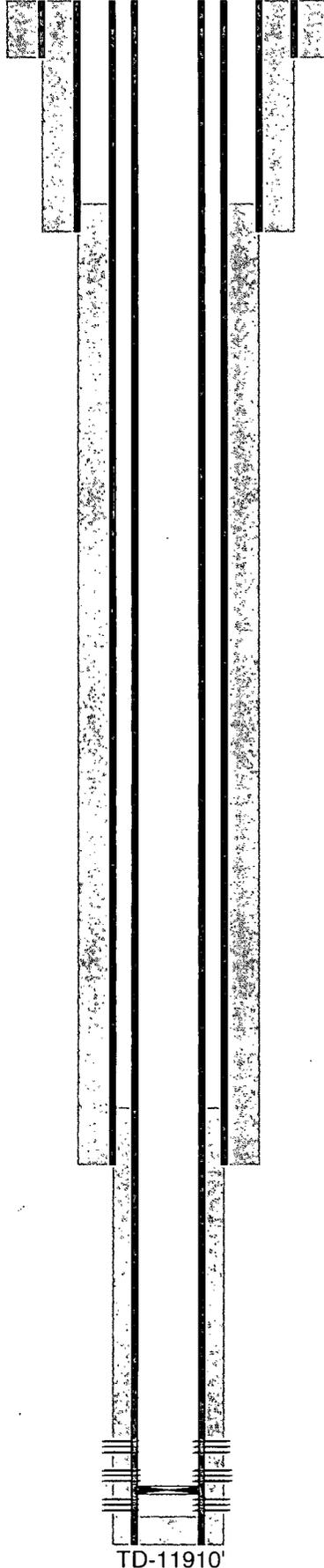
CIBP @ 11385' w/ 30sx to 11050'

CIBP @ 11660'

PB-11858'

TD-11910'

OXY USA Inc. - Current
Esperanza 24 #1
API No. 30-015-34205



17-1/2" hole @ 429'
13-3/8" csg @ 429'
w/ 450sx-TOC-Surf-Circ

12-1/4" hole @ 1950'
9-5/8" csg @ 1950'
w/ 815sx-TOC-Surf-Circ

8-3/4" hole @ 8986'
7" csg @ 8986'
w/ 429sx-TOC-1620'-TS

6-1/4" hole @ 11910'
4-1/2" csg @ 11900'
w/ 300sx-TOC-8800'-CBL

Perfs @ 11437-11594'

Perfs @ 11736-11822'

CIBP @ 11660'

PB-11858'

TD-11910'