

**STATE OF NEW MEXICO
DEPARTMENT OF ENERGY, MINERALS AND NATURAL RESOURCES
OIL CONSERVATION DIVISION**

**IN THE MATTER OF THE APPLICATION OF
VANCO OIL & GAS CORP. AND ITS AFFILIATE
CBS OPERATING CORP. FOR AMENDMENT
OF DIVISION ORDER NO. R-11435 TO
AUTHORIZE A PRESSURE MAINTENANCE
PROJECT IN THE NORTH SQUARE LAKE
UNIT AREA, ESTABLISH PROCEDURES
FOR APPROVAL OF ADDITIONAL INJECTION WELLS,
AND FOR QUALIFICATION OF THE PROJECT
AREA FOR THE RECOVERED OIL TAX RATE
PURSUANT TO THE ENHANCED OIL RECOVERY
ACT, EDDY COUNTY, NEW MEXICO.**

CELESTE E. FLORES

CELESTE E. FLORES

CASE NO. 12112 (REOPENED)

APPLICATION

VANCO OIL & GAS CORP and its affiliate, CBS OPERATING CORP., (“Vanco”) through its undersigned attorneys, Holland & Hart, LLP, hereby makes application for an order amending Division Order No. R-11435 to authorize a pressure maintenance project in the North Square Lake Unit, by the injection of water into the Lower Grayburg and Upper San Andres formations through ten existing injection wells and additional wells to be converted to injection in the unit area. Vanco also seeks the qualification of this project for the recovered oil tax rate pursuant to the provisions of the New Mexico Enhanced Oil Recovery Act, and in support of its application states:

1. By Order No. R-11207, issued in Case No. 12113, dated June 17, 1999, the North Square lake Unit was approved pursuant to the Statutory Unitization Act for the purpose of establishing a secondary recovery project. The Unit Area is comprised of 6,155.96 acres, more or less, of state and federal lands located in the following described acreage in Eddy County, New Mexico:

APPLICATION

TOWNSHIP 16 SOUTH, RANGE 30 EAST, NMPM

Section 25: E/2
Section 36: N/2

TOWNSHIP 16 SOUTH, RANGE 31 EAST, NMPM

Section 19: S/2
Section 20: S/2
Section 27: SW/4, W/2 SE/4,
SE/4 SE/4, SW/4 NE/4,
S/2 NW/4, NW/4 NW/4
Section 28 through 34: All

Pursuant to Section 70-7-8 NMSA 1978, sufficient ratifications of the Division's statutory unitization order were obtained from the interest owners in the Unit Area and the unit became effective on January 1, 2000. The Division directed that injection into the proposed injection wells should not commence within the unit area until such time as the Division approved the proposed waterflood project for the unit area.

2. To be able to focus on specific areas within the Unit Area and thereby obtain data and better manage the issues related to wellbore integrity in this old producing area, the Division authorized the implementation of waterflood operations in phases. By Order No. R-11435, issued in Case No. 12112 (Reopened), dated August 10, 2000, a waterflood project was approved in the vertical interval from the top of the Grayburg formation to the base of the San Andres formation for the Phase IA and Phase IB areas of the North Square Lake Unit Area. These Phases include the following acreage within the proposed waterflood project area:

PHASE IA EAST

TOWNSHIP 16 SOUTH, RANGE 31 EAST, NMPM

Section 27: SW/4, W/2 SE/4,
SE/4 SE/4, SW/4 NE/4,
S/2 NW/4, NW/4 NW/4
Section 28: All
Sections 33 and 34: All

PHASE IB WEST

TOWNSHIP 16 SOUTH, RANGE 30 EAST, NMPM

Section 36: N/2

TOWNSHIP 16 SOUTH, RANGE 31 EAST, NMPM

Section 31: All

3. Recently acquired data on the performance of wells in other secondary recovery projects in the Square Lake Grayburg-San Andres Pool shows that wells are not responding to waterflood operations as originally projected and that the best results from secondary recovery operations in this formation are achieved by the implementation of pressure maintenance operations.

4. GP II Energy, Inc., plans to resign as operator of the North Square Lake Unit and Vanco Oil & Gas Corp., or its affiliate, CBS Operating Corp., working interest owners in the unit area, will become successor operator.

5. Vanco seeks amendment of Order No. R-11435 to authorize the implementation of a partial pressure maintenance project in the Unit Area by the injection of water into the Grayburg and San Andres formations through existing injection wells and additional wells to either be drilled as injection wells or existing wells which will be converted to injection. The existing and proposed injection wells are identified on Exhibit A to this application, additional wells in the Unit Area which could be used as injection wells in the future are identified on Exhibit B to this application, and all of these wells are shown on the map of the unit area which is attached to this application as Exhibit C.

6. Vanco also seeks amendment of Division Order No. R-11435 to permit it to commence additional injection in any injection well once it has completed all Division required remedial work, if any, in the one-half mile Area of Review for that well pursuant to Division Rule 701 et seq.

7. Vanco also seeks the establishment of an administrative procedure whereby additional injection wells within the North Square Lake Unit Area may be drilled and/or completed as injection wells added without the necessity of additional hearings.

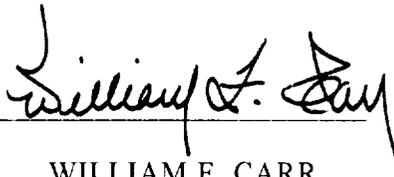
8. Vanco further seeks to qualify this project for the Recovered Oil Tax Rate pursuant to the New Mexico Enhanced Oil Recovery Act.

9. Approval of this application will enable Vanco to commence pressure maintenance operations in the North Square Lake Unit Area, will result in the recovery of hydrocarbons which will otherwise be left in the ground thereby preventing waste and will otherwise be in the best interest of conservation and the protection of correlative rights.

WHEREFORE, Vanco Oil & Gas Corp. and its affiliate, CBS Operating Corp., request that this matter be set for hearing before a duly appointed Examiner of the Oil Conservation Division on March 7, 2002, and after notice and hearing as required by law, the Division enter its order granting this application.

Respectfully Submitted,

HOLLAND & HART, LLP

By: 

WILLIAM F. CARR
Post Office Box 2208
Santa Fe, New Mexico 87504
Telephone (505) 988-4421

ATTORNEYS FOR VANCO OIL & GAS CORP.
AND ITS AFFILIATE CBS OPERATING CORP

CASE 12112

Application of Vanco Oil & Gas Corp. and its affiliate CBS Operating Corp. for amendment of Division Order No. R-11435 to authorize a pressure maintenance project in the North Square lake Unit Area, establish procedures for approval of additional injection wells, and for Qualification of the project area for the Recovered Oil Tax Rate pursuant to the Enhanced Oil Recovery Act, Eddy County, New Mexico. Applicant seeks amendment of Division Order No. R-11435 which approved a waterflood project in the North Square Lake Unit Area to authorize a pressure maintenance project by injection of water into the Grayburg and San Andres formations through and additional injection wells to be either drilled or re-completed to injection in the North Square Lake Unit Area with injection to be allowed once all remedial work, if any, has been performed in the 1/2 mile area of review for each proposed injection well as required by the rules of the Oil Conservation Division. Applicants also seek the establishment of an administrative procedure whereby additional wells within the North Square Lake Unit Area can be drilled and/or converted to injection without the necessity of additional hearings and to qualify this project for the Recovered Oil Tax Rate pursuant to the Enhanced Oil Recovery Act. The North Square Lake Unit is located in the following described lands in Eddy County, New Mexico:

TOWNSHIP 16 SOUTH, RANGE 30 EAST, NMPM

Section 25: E/2
Section 36: N/2

TOWNSHIP 16 SOUTH, RANGE 31 EAST, NMPM

Section 19: S/2
Section 20: S/2
Section 27: SW/4, W/2 SE/4,
SE/4 SE/4, SW/4 NE/4,
S/2 NW/4, NW/4 NW/4
Section 28 -34: All

The unit area is approximately five miles northeast of Loco Hills, New Mexico.

**NORTH SQUARE LAKE UNIT
EDDY COUNTY, NEW MEXICO
EXISTING WELLBORES WITH INJECTION STATUS**

UNIT WELL NO	API WELL NO.	SEC.TWN RANGE	LOCATION
NSLU 4	30-015-20127	19I-16-31	1650' FSL & 990' FEL
NSLU 8	30-015-04864	20I-16-31	1980' FSL & 660' FEL
NSLU 51	30-015-03926	25J-16-30	1980' FSL & 1980' FEL
NSLU 59	30-015-04919	29K-16-31	1880' FSL & 1980' FWL
NSLU 69	30-015-03925	25O-16-30	660' FSL & 1980' FEL
NSLU 97	30-015-10863	36A-16-30	10' FNL & 10' FEL
NSLU 101	30-015-04946	31B-16-31	660' FNL & 1980' FEL
NSLU 102	30-015-20185	31A-16-31	330' FNL & 660' FEL
NSLU 125	30-015-04945	31F-16-31	1980' FNL & 1950' FWL
NSLU 127	30-015-04949	31H-16-31	1980' FNL & 660' FEL

**NORTH SQUARE LAKE UNIT
EDDY COUNTY, NEW MEXICO
FUTURE POTENTIAL WATER INJECTION WELLS**

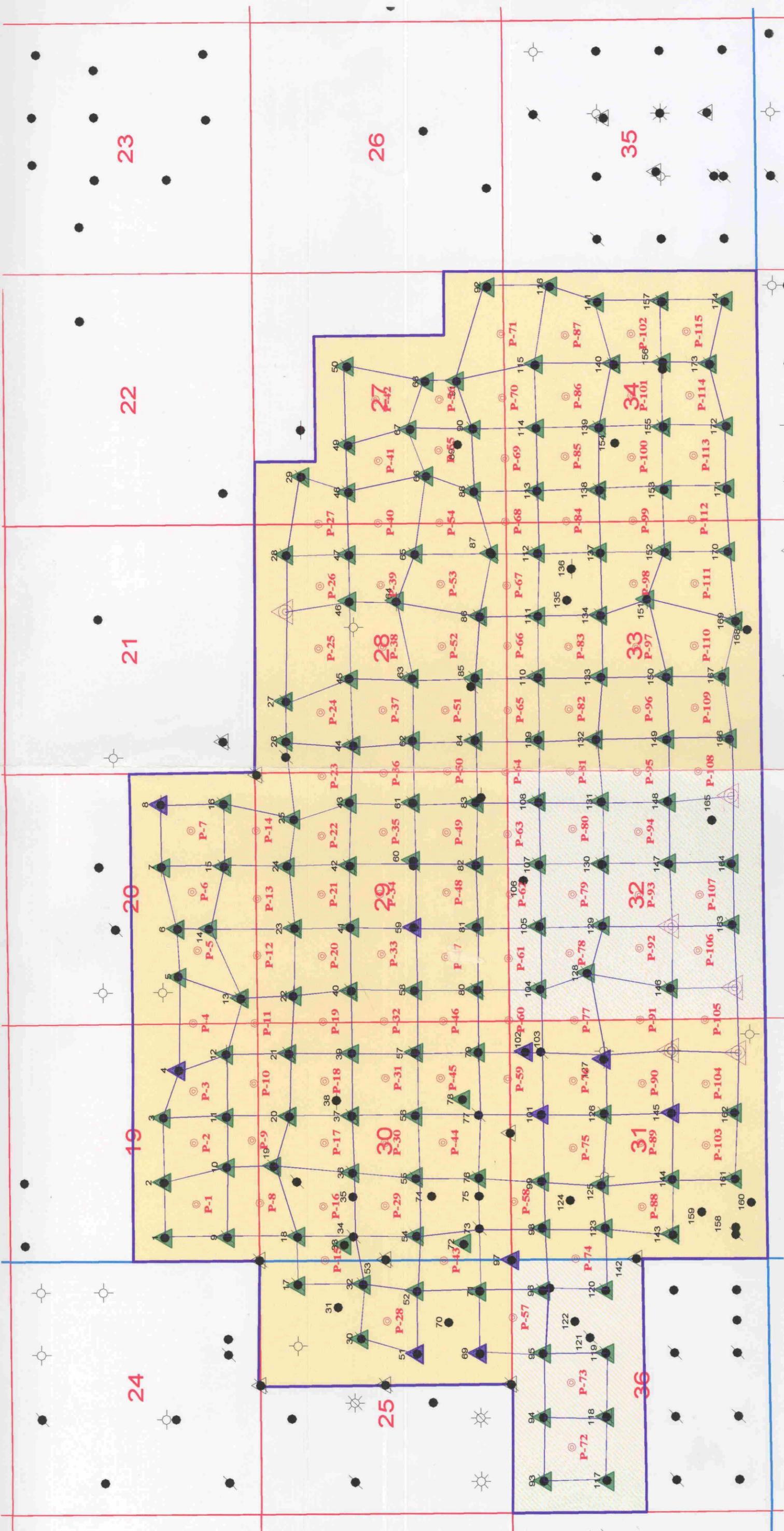
UNIT WELL NO	API WELL NO.	SEC.TWN RANGE	LOCATION			
NSLU 1	30-015-04854	19L-16-31	1980' FSL & 500' FWL			
NSLU 2	30-015-04855	19K-16-31	1980' FSL & 1660' FWL			
NSLU 3	30-015-20183	19J-16-31	1980' FSL & 1980' FEL			
NSLU 5	30-015-10322	20L-16-31	1650' FSL & 990' FNL			
NSLU 6	30-015-10206	20K-16-31	1650' FSL & 1980' FWL			
NSLU 7	30-015-04863	20J-16-31	1980' FSL & 1980' FEL			
NSLU 9	30-015-04852	19M-26-31	660' FSL & 504' FWL			
NSLU 10	30-015-04853	19N-16-31	660' FSL & 1668' FWL			
NSLU 11	30-015-04857	19O-16-31	660' FSL & 1980' FEL			
NSLU 12	30-015-04856	19P-16-31	660' FSL & 660' FEL			
NSLU 13	30-015-04858	20M-16-31	330' FSL & 510' FWL			
NSLU 14	30-015-10343	20N-16-31	990' FSL & 1980' FWL			
NSLU 15	30-015-04859	20O-16-31	660' FSL & 1980' FEL			
NSLU 16	30-015-04860	20P-16-31	660' FSL & 660' FEL			
NSLU 17	30-015-03922	25A-16-30	810' FNL & 510' FEL			
NSLU 18	30-015-04923	30D-16-31	810' FNL & 503' FWL			
NSLU 19	30-015-10469	30C-16-31	330' FNL & 1995' FWL			
NSLU 20	30-015-04936	30B-16-31	660' FNL & 1980' FEL			
NSLU 21	30-015-04934	30A-16-31	660' FNL & 660' FEL			
NSLU 22	30-015-04905	29D-16-31	760' FNL & 560' FWL			
NSLU 23	30-015-04906	29C-16-31	810' FNL & 1980' FWL			
NSLU 24	30-015-04912	29B-16-31	660' FNL & 1980' FEL			
NSLU 25	30-015-04913	29A-16-31	810' FNL & 990' FEL			
NSLU 26	30-015-04897	28D-16-31	660' FNL & 660' FWL			
NSLU 27	30-015-10549	28C-16-31	660' FNL & 1650' FWL			
NSLU 28	30-015-04889	28A-16-31	660' FNL & 660' FEL			
NSLU 29	30-015-04883	27D-16-31	990' FNL & 990' FWL			
NSLU 30	30-015-03923	25G-16-30	2130' FNL & 1650' FEL			
NSLU 32	30-015-03921	25H-16-30	1980' FNL & 510' FEL			
NSLU 33	30-015-20701	30E-16-31	1790' FNL & 330' FWL			
NSLU 36	NA	30F-16-31	1980' FNL & 1670' FWL			
NSLU 37	30-015-04935	30G-16-31	1980' FNL & 1980' FEL			
NSLU 39	30-015-04933	30H-16-31	1980' FNL & 660' FEL			
NSLU 40	30-015-04911	29E-16-31	1980' FNL & 660' FWL			
NSLU 41	30-015-04907	29F-16-31	1980' FNL & 1980' FWL			
NSLU 42	30-015-04908	29G-16-31	1980' FNL & 1980' FEL			
NSLU 43	30-015-04909	29H-16-31	1980' FNL & 660' FEL			
NSLU 44	30-015-04896	28E-16-31	1980' FNL & 660' FWL			
NSLU 45	30-015-10321	28F-16-31	1650' FNL & 2310' FWL			
NSLU 46	30-015-04899	28G-16-31	1980' FNL & 1650' FEL			
NSLU 47	30-015-10149	28H-16-31	1980' FNL & 660' FEL			
NSLU 48	30-015-04878	27E-16-31	1980' FNL & 660' FWL			
NSLU 49	30-015-04882	27F-16-31	1980' FNL & 1650' FWL			
NSLU 50	30-015-04880	27G-16-31	1980' FNL & 1980' FEL			
NSLU 52	30-015-03927	28I-16-30	1980' FSL & 660' FEL			

**NORTH SQUARE LAKE UNIT
EDDY COUNTY, NEW MEXICO
FUTURE POTENTIAL WATER INJECTION WELLS**

UNIT	API WELL	SEC.TWN			
WELL NO	NO.	RANGE	LOCATION		
NSLU 54	30-015-04930	30L-16-31	1980' FSL & 506' FWL		
NSLU 55	NA	30K-16-31	1980' FSL & 1980' FWL		
NSLU 56	30-015-04929	30J-16-31	1980' FSL & 1980' FEL		
NSLU 57	30-015-04925	30I-16-31	1980' FSL & 660' FEL		
NSLU 58	30-015-04918	29L-16-31	1980' FSL & 660' FWL		
NSLU 60	30-015-04914	29J-16-31	1980' FSL & 1880' FEL		
NSLU 61	30-015-04903	29I-16-31	1980' FSL & 660' FEL		
NSLU 62	30-015-04892	28L-16-31	1980' FSL & 660' FWL		
NSLU 63	30-015-04894	28K-16-31	1980' FSL & 1980' FWL		
NSLU 64	30-015-04890	28J-16-31	2310' FSL & 1650' FEL		
NSLU 65	30-015-04900	28I-16-31	2310' FSL & 660' FEL		
NSLU 66	30-015-10284	27L-16-31	1650' FSL & 990' FWL		
NSLU 67	30-015-10121	27K-16-31	1980' FSL & 1980' FWL		
NSLU 68	30-015-10530	27J-16-31	1650' FSL & 2310' FEL		
NSLU 71	30-015-03924	25P-16-30	660' FSL & 660' FEL		
NSLU 72	30-015-20554	30M-16-31	990' FSL & 330' FWL		
NSLU 76	30-015-04931	30N-16-31	660' FSL & 1980' FWL		
NSLU 78	30-015-24458	30O-16-31	990' FSL & 1650' FWL		
NSLU 79	30-015-04928	30P-16-31	660' FSL & 660' FEL		
NSLU 80	30-015-04916	29M-16-31	660' FSL & 660' FWL		
NSLU 81	30-015-04917	29N-16-31	660' FSL & 1980' FWL		
NSLU 82	30-015-04910	29O-16-31	660' FSL & 1980' FEL		
NSLU 83	30-015-04915	29P-16-31	550' FSL & 550' FEL		
NSLU 84	30-015-04891	28M-16-31	660' FSL & 660' FWL		
NSLU 85	NA	28N-16-31	560' FSL & 1880' FWL		
NSLU 86	NA	28O-16-31	660' FSL & 1980' FEL		
NSLU 87	30-015-10078	28P-16-31	330' FSL & 626' FEL		
NSLU 88	30-015-04881	27M-16-31	660' FSL & 660' FWL		
NSLU 90	NA	27N-16-31	660' FSL & 1980' FWL		
NSLU 91	30-015-10270	27O-16-31	990' FSL & 2310' FEL		
NSLU 92	30-015-04887	27P-16-31	330' FSL & 330' FEL		
NSLU 93	30-015-04021	36D-16-30	660' FNL & 660' FWL		
NSLU 94	30-015-04020	36C-16-30	660' FNL & 1980' FWL		
NSLU 95	30-015-04030	36B-16-30	660' FNL & 1980' FEL		
NSLU 96	30-015-04031	36A-16-30	610' FNL & 660' FEL		
NSLU 98	30-015-04942	31D-16-31	660' FNL & 660' FWL		
NSLU 99	30-015-04944	31C-16-31	660' FNL & 1980' FWL		
NSLU 104	30-015-04964	32D-16-31	660' FNL & 660' FWL		
NSLU 105	30-015-04966	32C-16-31	660' FNL & 1980' FWL		
NSLU 107	30-015-04960	32B-16-31	660' FNL & 1980' FEL		
NSLU 108	30-015-04961	32A-16-31	660' FNL & 660' FEL		
NSLU 109	30-015-04977	33D-16-31	660' FNL & 660' FWL		
NSLU 110	30-015-04976	33C-16-31	660' FNL & 1980' FWL		
NSLU 111	30-015-04979	33B-16-31	660' FNL & 1980' FEL		

**NORTH SQUARE LAKE UNIT
EDDY COUNTY, NEW MEXICO
FUTURE POTENTIAL WATER INJECTION WELLS**

UNIT	API WELL	SEC.TWN				
WELL NO	NO.	RANGE	LOCATION			
NSLU 112	30-015-04972	33A-16-31	660' FNL & 660' FEL			
NSLU 113	30-015-04990	34D-16-31	660' FNL & 660' FWL			
NSLU 114	30-015-10271	34C-16-31	660' FNL & 1980' FWL			
NSLU 115	30-015-10273	34B-16-31	660' FNL & 1980' FEL			
NSLU 116	30-015-10272	34A-16-31	990' FNL & 330' FEL			
NSLU 117	30-015-04019	36E-16-30	1980' FNL & 660' FWL			
NSLU 118	30-015-04018	36F-16-30	1980' FNL & 1980' FWL			
NSLU 119	NA	36G-16-30	1980' FNL & 1980' FEL			
NSLU 120	30-015-21747	36G-16-30	1650' FNL & 1650' FEL			
NSLU 123	30-015-04943	31E-16-31	1980' FNL & 660' FWL			
NSLU 125	30-015-04945	31F-16-31	1980' FNL & 1950' FWL			
NSLU 126	30-015-04947	31G-16-31	1980' FNL & 1980' FEL			
NSLU 128	30-015-04965	32E-16-31	1650' FNL & 990' FWL			
NSLU 129	30-015-04967	32F-16-31	1980' FNL & 1980' FWL			
NSLU 130	30-015-04963	32G-16-31	1980' FNL & 1980' FEL			
NSLU 131	30-015-04962	32H-16-31	1980' FNL & 660' FEL			
NSLU 132	30-015-04978	33E-16-31	1880' FNL & 660' FWL			
NSLU 133	30-015-04975	33F-16-31	1980' FNL & 1980' FWL			
NSLU 134	30-015-04980	33G-16-31	1980' FNL & 1980' FEL			
NSLU 137	30-015-04971	33H-16-31	1980' FNL & 660' FEL			
NSLU 138	30-015-04989	34E-16-31	1980' FNL & 660' FWL			
NSLU 139	30-015-04994	34F-16-31	1980' FNL & 1980' FWL			
NSLU 140	30-015-04998	34G-16-31	2310' FNL & 1980' FEL			
NSLU 141	30-015-04985	34H-16-31	1980' FNL & 660' FEL			
NSLU 143	30-015-04938	31L-16-31	1980' FSL & 511' FWL			
NSLU 144	30-015-04941	31K-16-31	1980' FSL & 1680' FWL			
NSLU 146	30-015-04954	32L-16-31	1980' FSL & 660' FWL			
NSLU 147	30-015-04959	32J-16-31	1980' FSL & 1980' FEL			
NSLU 148	30-015-04956	32I-16-31	1980' FSL & 660' FEL			
NSLU 149	30-015-04969	33L-16-31	1980' FSL & 660' FWL			
NSLU 150	30-015-04981	33K-16-31	1980' FSL & 1980' FWL			
NSLU 151	30-015-04973	33J-16-31	2310' FSL & 1650' FEL			
NSLU 152	30-015-04982	33I-16-31	1980' FSL & 660' FEL			
NSLU 153	30-015-04993	34L-16-31	1980' FSL & 660' FWL			
NSLU 155	30-015-04991	34K-16-31	1980' FSL & 1980' FWL			
NSLU 156	30-015-21771	34J-16-31	1980' FNL & 2080' FEL			
NSLU 157	30-015-04987	34I-16-31	1980' FSL & 660' FEL			
NSLU 161	30-015-04951	31N-16-31	660' FSL & 1980' FWL			
NSLU 162	30-015-24457	31O-16-31	660' FSL & 1980' FEL			
NSLU 163	30-015-04955	32N-16-31	660' FSL & 1980' FWL			
NSLU 164	30-015-04957	32O-16-31	660' FSL & 1980' FEL			
NSLU 166	30-015-04968	33M-16-31	660' FSL & 660' FWL			
NSLU 167	30-015-04983	33N-16-31	810' FSL & 1980' FWL			
NSLU 169	NA	33O-16-31	510' FSL & 2310' FEL			



VANCO OIL & GAS CORP.

NORTH SQUARE LAKE UNIT
EDDY COUNTY, NEW MEXICO
INJECTION WELLBORE UTILITY KEY

MANNY SIRGO	4/2000
SCALE: 1"=2000'	

LEGEND

- Active Oil Well
- Inactive Oil Well
- Abandoned Oil Well
- ▲ Active Injector Well
- ▲ Inactive Injector Well
- ▲ Abandoned Injector Well
- ◉ POTENTIAL 20 ACRE INFILL PRODUCER
- ◉ POTENTIAL NEW DRILL INJECTOR

FEDERAL ACREAGE (Yellow shaded area)

STATE ACREAGE (Hatched area)

EXISTING INJ. WELL (Purple triangle)

POTENTIAL FUTURE INJ. WELL (Green triangle)