

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

**IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:**

**CASE NO. 12709
ORDER NO. R-11720**

**APPLICATION OF MELROSE OPERATING COMPANY TO EXPAND ITS
ARTESIA UNIT WATERFLOOD PROJECT AND AMEND DIVISION
ADMINISTRATIVE ORDER WFX-768, EDDY COUNTY, NEW MEXICO.**

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on September 6 and 20, 2001, at Santa Fe, New Mexico, before Examiners David R. Catanach and Michael E. Stogner, respectively.

NOW, on this 5th day of February, 2002, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.

(2) By Order No. R-2876 issued in Case No. 3213 on March 5, 1965, the Division, upon the application of International Oil and Gas Corporation, approved a waterflood project in the Artesia Queen-Grayburg-San Andres Pool in Sections 25 and 26, Township 17 South, Range 28 East, NMPM, Eddy County, New Mexico. This waterflood was subsequently expanded by Division Order No. R-3311, dated September 11, 1967, to include additional lands within Sections 34, 35 and 36, Township 17 South, Range 28 East, NMPM, and Sections 2 and 3, Township 18 South, Range 28 East, NMPM.

(3) The above-described secondary recovery project is currently designated the Artesia Unit Waterflood Project. This project is operated by Melrose Operating Company and currently comprises the following-described area in Eddy County, New Mexico:

TOWNSHIP 17 SOUTH, RANGE 28 EAST, NMPM

Section 25: SW/4 SW/4
Section 26: NW/4 SW/4, S/2 S/2
Section 34: SE/4
Section 35: All
Section 36: W/2 NW/4, SE/4 NW/4, SW/4

TOWNSHIP 18 SOUTH, RANGE 28 EAST, NMPM

Section 2: NW/4 NE/4, N/2 NW/4, SW/4 NW/4, W/2 SW/4,
SE/4 SW/4
Section 3: All

(4) The applicant, Melrose Operating Company ("Melrose"), seeks:

- (a) authority to expand its Artesia Unit Waterflood Project by converting the Artesia Unit Wells No. 2, 3, 10, 11, 12, 13, 16, 17, 18, 19, 44, 46, 54 and 57 to injection wells (all as shown on Exhibit "A" attached to this order); and
- (b) to amend Division Order No. WFX-768 issued on November 28, 2000, which order authorized Melrose to convert its Artesia Unit Wells No. 23 and 29, located respectively in Units L and N of Section 35, Township 17 South, Range 28 East, NMPM, to injection wells within the Artesia Unit Waterflood Project.

(5) BP Amoco Production, an offset operator, appeared at the hearing through legal counsel.

(6) Division Order No. WFX-768 authorized Melrose to convert the Artesia Unit Wells No. 23 and 29 to injection within the subject secondary recovery project provided that Melrose first:

- (a) cement squeeze the interval from the existing cement top to the surface behind the production casing in the Artesia Unit Wells No. 12 and 13

located respectively in Units E and F of Section 35, Township 17 South, Range 28 East, NMPM; and

- (b) either cement squeeze the interval from the existing cement top to a depth of 1,700 feet behind the production casing in the Empire Abo Unit “G” Well No. 38 located in Unit K of Section 35, Township 17 South, Range 28 East, NMPM, or demonstrate to the Division that the existing cement top behind the production casing in this well is at or above 1,700 feet.

(7) At the hearing, Melrose testified that it does not seek to amend Division Order No. WFX-768, but rather requests Division confirmation that it has complied with the remedial cement requirements contained within this order.

(8) Melrose’s evidence demonstrates that it has fully complied with the remedial cement requirements set forth within Division Order No. WFX-768, and should therefore be allowed to commence injection into the Artesia Unit Wells No. 23 and 29.

(9) Division records indicate that four of the wells Melrose seeks to convert to injection have previously been approved as injection wells within the Artesia Unit Waterflood Project. These wells are described as follows:

- (a) the Artesia Unit Well No. 16, located in Unit E of Section 36, Township 17 South, Range 28 East, NMPM, was originally permitted by Division Order No. R-3311;
- (b) the Artesia Unit Well No. 44, located in Unit E of Section 3, Township 18 South, Range 28 East, NMPM, was originally permitted by Division Order No. R-3311;
- (c) the Artesia Unit Well No. 10, located in Unit C of Section 35, Township 17 South, Range 28 East, NMPM, was originally permitted by Division Order No. WFX-385 dated February 6, 1973; and
- (d) the Artesia Unit Well No. 18, located in Unit K of Section 36, Township 17 South, Range 28 East,

NMPM, was originally permitted by Division Order No. WFX-470 dated November 21, 1978.

(10) Although injection authority may still be valid for the Artesia Unit Wells No. 10, 16, 18 and 44, these wells were permitted prior to the time the Division made major changes in the process it utilizes to permit injection wells.

(11) The Artesia Unit Wells No. 10, 16, 18 and 44 should be re-permitted under modern Division regulations, and any provisions contained within Division Orders No. R-3311, WFX-385 and WFX-470 relating to injection authority for these wells should be superseded by this order.

(12) The evidence presented by Melrose demonstrates that the Artesia Unit Wells No. 44 and 46:

- (a) do not have surface casing;
- (b) have a cement top behind the production casing at a depth of approximately 1,500 feet; and
- (c) are not adequately cased and cemented so as to protect fresh water aquifers that occur at depths from 0-450 feet below the surface.

(13) Prior to commencing injection operations into the Artesia Unit Wells No. 44 and 46, Melrose should be required to cement the production casing string from the top of the cement (approximately 1,500 feet) to the surface.

(14) The evidence presented by Melrose further demonstrates that the cement top behind the production casing in the Artesia Unit Well No. 54 is at a depth of 2,169 feet. According to applicant's evidence, it proposes to inject into this well through the perforated interval from 2,170 feet to 2,406 feet.

(15) Prior to commencing injection operations into the Artesia Unit Well No. 54, Melrose should be required to cement the production casing string from the top of the cement (approximately 2,169 feet) to the surface.

(16) The evidence presented by Melrose further demonstrates that the Artesia Unit Well No. 57 is currently plugged and abandoned.

(17) In the event the Artesia Unit Well No. 57 is re-entered and converted to injection, Melrose should be required to set a production casing string in the wellbore and circulate cement to surface on this casing string.

(18) Within the one-half mile "area of review," there are approximately two hundred-fourteen (214) wells that have penetrated to or through the Artesia Queen-Grayburg-San Andres Pool. Of these two hundred-fourteen (214) wells, thirty-five (35) wells are plugged and abandoned, one hundred seventy-four (174) wells are active, and five (5) wells have no data available regarding their construction or status.

(19) Exhibit "B" attached to this order is a list of three plugged and abandoned wells within the "area of review" that are not plugged adequately so as to preclude the migration of fluid from the proposed injection zone.

(20) Prior to commencing injection into any injection well located within ½ mile of the wells shown on Exhibit "B," Melrose should be required to:

- (a) re-enter and re-plug these wells in a manner approved by the Supervisor of the Division's Artesia District Office; or
- (b) provide additional geologic, engineering or well data to the Supervisor of the Division's Artesia District Office that will demonstrate that these wells, in their current condition, will not serve as a conduit for the migration of fluid from the proposed injection zone.

(21) Melrose identified seven (7) potential problem wells that were drilled in the 1920's for which there is limited well construction data on file with the Division. These wells are shown on Exhibit "C" attached to this order.

(22) Melrose has proposed that prior to commencing injection into any injection well located within ½ mile of the wells shown on Exhibit "C," it will run a cement bond log on these wells to determine the cement top behind the production casing. If the cement behind the production casing is insufficient to isolate the injection interval, Melrose will perform remedial cement work on the well(s) in a manner approved by the supervisor of the Division's Artesia District Office.

(23) Melrose has also identified three (3) potential problem wells that were drilled in the 1920's for which there is limited well construction data on file with the

Division. In addition, the data available indicates that these wells may not have surface casing set in the wellbore. By virtue of not having surface casing, these wells may not be adequately constructed so as to protect fresh water aquifers. These wells are shown on Exhibit "D" attached to this order.

(24) Melrose has proposed that prior to commencing injection into any injection well located within $\frac{1}{2}$ mile of the wells shown on Exhibit "D," it will dig out the wellhead to determine whether surface casing is present in the wellbore. In addition, it will run a cement bond log on these wells to determine the cement top behind the production casing. If the cement behind the production casing is not adequate to isolate the injection zone and protect fresh water, Melrose will perform remedial cement work on the well(s) in a manner approved by the supervisor of the Division's Artesia District Office.

(25) There are a number of additional wells within the "area of review," shown on Exhibit "E," that may or may not be adequately cemented so as to confine the injected fluid to the proposed injection interval.

(26) Prior to commencing injection into any injection well located within $\frac{1}{2}$ mile of the wells shown on Exhibit "E," Melrose should be required to consult with the supervisor of the Division's Artesia District Office and present additional geologic and/or engineering data to demonstrate that the cement behind the production casing in these wells is sufficient to effectively isolate the injection interval.

(27) The supervisor of the Division's Artesia District Office may require Melrose to perform remedial cement operations on any well shown on Exhibit "E" in the event Melrose cannot satisfactorily demonstrate that the cement behind the production casing in these wells is sufficient to effectively isolate the injection interval.

(28) The operator should take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(29) Injection should be accomplished through 2 $\frac{3}{8}$ inch internally plastic-lined tubing installed in a packer set within 100 feet of the uppermost injection perforation in each well. The casing-tubing annulus should be filled with an inert fluid, and a gauge or approved leak-detection device should be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

(30) The injection wells or pressurization system should be equipped with a pressure control device or acceptable substitute that will limit the surface injection

pressure to 0.2 psi/foot of depth to the uppermost injection perforation, all as shown on Exhibit "A."

(31) Prior to commencing injection operations, the casing in each well should be pressure tested throughout the interval from the surface down to the proposed packer setting depth to assure the integrity of such casing.

(32) The operator should give advance notice to the supervisor of the Division's Artesia District Office of the date and time (i) injection equipment will be installed; (ii) the mechanical integrity pressure tests will be conducted on the proposed injection wells, and (iii) remedial work will be conducted on any of the wells shown on Exhibits "A," "B," "C," "D" or "E," so these operations may be witnessed.

(33) The operator should immediately notify the supervisor of the Division's Artesia District Office of the failure of the tubing, casing or packer in any of the injection wells, or the leakage of water, oil or gas from or around any producing or plugged and abandoned well within the project area, and should take all steps as may be timely and necessary to correct such failure or leakage.

(34) The proposed expansion of the Artesia Unit Waterflood Project should be approved.

(35) The injection authority granted herein for any of the wells shown on Exhibit "A" should terminate one year after the date of this order if the operator has not commenced injection operations into the well; provided, however, the Division, upon written request by the operator, may grant an extension for good cause.

IT IS THEREFORE ORDERED THAT:

(1) The applicant, Melrose Operating Company, is hereby authorized to expand its Artesia Unit Waterflood Project by converting to injection the Artesia Unit Wells No. 2, 3, 10, 11, 12, 13, 16, 17, 18, 19, 44, 46, 54 and 57, all as shown on Exhibit "A" attached to this order. The applicant is further authorized to inject into the Artesia Queen-Grayburg-San Andres Pool through the gross interval from approximately 1,897 feet to 2,750 feet within the subject injection wells.

(2) Those portions of Division Orders No. R-3311, WFX-385 and WFX-470 relating to injection authority for the Artesia Unit Wells No. 10, 16, 18 and 44 should be superseded by this order.

(3) Pursuant to the request of Melrose Operating Company, the Division hereby certifies that the applicant has satisfactorily complied with the remedial cement

requirements set forth within Division Administrative Order No. WFX-768, and is hereby authorized to commence injection into its Artesia Unit Wells No. 23 and 29, located respectively in Units L and N of Section 35, Township 17 South, Range 28 East, NMPM, Eddy County, New Mexico.

(4) Prior to commencing injection operations into the Artesia Unit Wells No. 44, 46 and 54, the applicant shall cement the production casing string from the top of the cement to the surface.

(5) In the event the Artesia Unit Well No. 57 is re-entered and converted to injection, the applicant shall, prior to commencing injection operations, set a production casing string in the wellbore and circulate cement to surface on this casing string.

(6) Prior to commencing injection into any injection well located within $\frac{1}{2}$ mile of the wells shown on Exhibit "B," the applicant shall:

- a. re-enter and re-plug these wells in a manner approved by the Supervisor of the Division's Artesia District Office; or
- b. provide additional geologic, engineering or well data to the Supervisor of the Division's Artesia District Office that will demonstrate that these wells, in their current condition, will not serve as a conduit for the migration of fluid from the proposed injection zone.

(7) Prior to commencing injection into any injection well located within $\frac{1}{2}$ mile of the wells shown on Exhibit "C," the applicant shall run a cement bond log on these wells to determine the cement top behind the production casing. The cement bond log shall be submitted to the supervisor of the Division's Artesia District Office for analysis. In the event the cement behind the production casing in any of these wells is insufficient to isolate the injection interval, the applicant shall perform remedial cement work on the well(s) in a manner approved by the supervisor of the Division's Artesia District Office.

(8) Prior to commencing injection into any injection well located within $\frac{1}{2}$ mile of the wells shown on Exhibit "D," the applicant shall dig out the wellhead to determine whether surface casing is present in the wellbore. In addition, the applicant shall run a cement bond log on these wells to determine the cement top behind the production casing. The cement bond log shall be submitted to the supervisor of the Division's Artesia District Office for analysis. In the event the cement behind the production casing is not adequate to isolate the injection zone and protect fresh water, the

applicant shall perform remedial cement work on the well(s) in a manner approved by the supervisor of the Division's Artesia District Office.

(9) Prior to commencing injection into any injection well located within $\frac{1}{2}$ mile of the wells shown on Exhibit "E," Melrose shall consult with the supervisor of the Division's Artesia District Office and present additional geologic and/or engineering data to demonstrate that the cement behind the production casing in these wells is sufficient to effectively isolate the injection interval. The supervisor of the Division's Artesia District Office may require the applicant to perform remedial cement operations on any well shown on Exhibit "E" in the event the applicant cannot satisfactorily demonstrate that the cement behind the production casing in these wells is sufficient to effectively isolate the injection interval.

(10) The operator shall take all steps necessary to ensure that the injected water enters only the proposed injection interval and is not permitted to escape to other formations or onto the surface from injection, production, or plugged and abandoned wells.

(11) Injection shall be accomplished through 2 $\frac{3}{8}$ inch internally plastic-lined tubing installed in a packer set within 100 feet of the uppermost injection perforation in each well. The casing-tubing annulus shall be filled with an inert fluid, and a gauge or approved leak-detection device should be attached to the annulus in order to determine leakage in the casing, tubing, or packer.

(12) The injection wells or pressurization system shall be equipped with a pressure control device or acceptable substitute that will limit the surface injection pressure to 0.2 psi/foot of depth to the uppermost injection perforation, all as shown on Exhibit "A."

(13) Prior to commencing injection operations, the casing in each well shall be pressure tested throughout the interval from the surface down to the proposed packer setting depth to assure the integrity of such casing.

(14) The operator shall give advance notice to the supervisor of the Division's Artesia District Office of the date and time (i) injection equipment will be installed; (ii) the mechanical integrity pressure tests will be conducted on the proposed injection wells, and (iii) remedial work will be conducted on any of the wells shown on Exhibits "A," "B," "C," "D" or "E," so these operations may be witnessed.

(15) The operator shall immediately notify the supervisor of the Division's Artesia District Office of the failure of the tubing, casing or packer in any of the injection wells, or the leakage of water, oil or gas from or around any producing or plugged and

abandoned well within the project area, and shall take all steps as may be timely and necessary to correct such failure or leakage.

(16) The injection authority granted herein for any of the wells shown on Exhibit "A" shall terminate one year after the date of this order if the operator has not commenced injection operations into the well; provided, however, the Division, upon written request by the operator, may grant an extension for good cause.

(17) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

LORI WROTENBERY
Director

SEAL

Exhibit "A"
Division Order No. R-11720
Artesia Unit Waterflood Project
Approved Injection Wells

Well Name & Number	API Number	Well Location	Injection Interval	Packer Depth	Maximum Surface Inj. Pressure
Artesia Unit No. 2	30-015-01563	330' FSL & 330' FWL, Unit M, Section 26, T-17S, R-28E	1,897'-2,135'	1830'	379 PSIG
Artesia Unit No. 3	30-015-01565	330' FSL & 1750' FWL, Unit N, Section 26, T-17S, R-28E	1,932'-2,142'	1850'	386 PSIG
Artesia Unit No. 10	30-015-01749	360' FNL & 1952' FWL, Unit C, Section 35, T-17S, R-28E	1,959'-2,173'	1880'	392 PSIG
Artesia Unit No. 11	30-015-02654	360' FNL & 360' FWL, Unit D, Section 35, T-17S, R-28E	1,914'-2,140'	1850'	383 PSIG
Artesia Unit No. 12	30-015-01745	1980' FNL & 660' FWL, Unit E, Section 35, T-17S, R-28E	1,998'-2,290'	1940'	400 PSIG
Artesia Unit No. 13	30-015-01754	1980' FNL & 1980' FWL, Unit F, Section 35, T-17S, R-28E	2,040'-2,300'	1990'	408 PSIG
Artesia Unit No. 16	30-015-01759	1980' FNL & 660' FWL, Unit E, Section 36, T-17S, R-28E	2,236'-2,654'	2156'	447 PSIG
Artesia Unit No. 17	30-015-01761	1980' FNL & 1980' FWL, Unit F, Section 36, T-17S, R-28E	2,306'-2,685'	2260'	461 PSIG
Artesia Unit No. 18	30-015-01762	1980' FSL & 1980' FWL, Unit K, Section 36, T-17S, R-28E	2,356'-2,750'	2290'	471 PSIG
Artesia Unit No. 19	30-015-01760	1980' FSL & 660' FWL, Unit L, Section 36, T-17S, R-28E	2,296'-2,584'	2240'	459 PSIG
Artesia Unit No. 44	30-015-01796	2310' FNL & 990' FWL, Unit E, Section 3, T-18S, R-28E	2,085'-2,420'	2025'	417 PSIG
Artesia Unit No. 46	30-015-02541	2310' FNL & 2267' FWL, Unit F, Section 3, T-18S, R-28E	2,125'-2,419'	2075'	425 PSIG
Artesia Unit No. 54	30-015-01801	1654' FSL & 2272' FWL, Unit K, Section 3, T-18S, R-28E	2,170'-2,406'	2120'	434 PSIG
Artesia Unit No. 57	N/A	1570' FSL & 1070' FWL, Unit L, Section 3, T-18S, R-28E	2,322'-2,432'	2312'	464 PSIG

Exhibit "B"
Division Order No. R-11720
Artesia Unit Waterflood Project
Inadequately Plugged Wells

Well Name & Number	API Number	Well Location
Donnelly Drilling Sinclair State "B" No. 3	30-015-01765	660' FSL & 1980' FEL, Unit O, Section 36, T-17S, R-28E
Maloney Chambers State No. 1	30-015-02559	2390' FNL & 1070' FEL, Unit H, Section 4, T-18S, R-28E
Welch State No. 1	30-015-01729	23 10' FNL & 250' FWL, Unit E, Section 35, T-17S, R-28E

Exhibit "C"
Division Order No. R-11720
Artesia Unit Waterflood Project
Wellbores with Limited Construction Data

Well Name & Number	API Number	Well Location
Melrose Operating Company Artesia Unit No. 40	30-015-01799	1070' FNL & 1570' FWL, Unit C, Section 3, T-18S, R-28E
Melrose Operating Company Artesia Unit No. 45	30-015-01775	2390' FNL & 1570' FWL, Unit F, Section 3, T-18S, R-28E
Melrose Operating Company Artesia Unit No. 58	30-015-01791	1070' FSL & 250' FWL, Unit M, Section 3, T-18S, R-28E
Melrose Operating Company Levers State No. 1	30-015-02580	1070' FSL & 1070' FEL, Unit P, Section 4, T-18S, R-28E
Melrose Operating Company Levers State No. 2	30-015-02581	250' FSL & 1070' FEL, Unit P, Section 4, T-18S, R-28E
Melrose Operating Company Levers State No. 3	30-015-02582	250' FSL & 250' FEL, Unit P, Section 4, T-18S, R-28E
Melrose Operating Company Levers State No. 4	30-015-02583	1070' FSL & 250' FEL, Unit P, Section 4, T-18S, R-28E

Exhibit "D"
Division Order No. R-11720
Artesia Unit Waterflood Project
Wells With Limited Construction Data That May Not Have Surface Casing

Well Name & Number	API Number	Well Location
Melrose Operating Company Artesia Unit No. 43	30-015-01790	1980’ FNL & 250’ FWL, Unit E, Section 3, T-18S, R-28E
Melrose Operating Company Artesia Unit No. 56	30-015-01797	1570’ FSL & 1570’ FWL, Unit K, Section 3, T-18S, R-28E
Melrose Operating Company Artesia Unit No. 55	30-015-01798	2390’ FSL & 1570’ FWL, Unit K, Section 3, T-18S, R-28E

Exhibit "E"
Division Order No. R-11720
Artesia Unit Waterflood Project
"Area of Review" Wells That May Not Be Adequately Cemented

Well Name & Number	API Number	Well Location
Melrose Operating Company Artesia Unit No. 27	30-015-01709	705’ FSL & 550’ FEL, Unit P, Section 34, T-17S, R-28E
Vintage Drilling Carpers-Levers No. 2	30-015-01705	330’ FSL & 330’ FWL, Unit M, Section 34, T-17S, R-28E
BP Amoco Empire Abo Unit No. E-39	30-015-01735	660’ FNL & 1980’ FEL, Unit B, Section 35, T-17S, R-28E
Melrose Operating Company Artesia Unit No. 14	30-015-01755	1980’ FNL & 1980’ FEL, Unit G, Section 35, T-17S, R-28E
Melrose Operating Company Artesia Unit No. 15	30-015-02126	1980’ FNL & 990’ FEL, Unit H, Section 35, T-17S, R-28E
BP Amoco Empire Abo Unit “G” No. 37	30-015-01734	2310’ FSL & 330’ FWL, Unit L, Section 35, T-17S, R-28E
Melrose Operating Company Artesia Unit No. 28	30-015-01732	990’ FSL & 330’ FWL, Unit M, Section 35, T-17S, R-28E
Melrose Operating Company Artesia Unit No. 29	30-015-01742	990’ FSL & 1650’ FWL, Unit N, Section 35, T-17S, R-28E
Melrose Operating Company Artesia Unit No. 31	30-015-01744	990’ FSL & 990’ FEL, Unit P, Section 35, T-17S, R-28E
Melrose Operating Company Artesia Unit No. 7	30-015-10080	480’ FNL & 330’ FWL, Unit D, Section 36, T-17S, R-28E
R. B. Operating Company Five “J” No. 2	30-015-10543	1980’ FNL & 1980’ FEL, Unit G, Section 36, T-17S, R-28E
Melrose Operating Company Artesia Unit No. 32	30-015-01764	990’ FSL & 330’ FWL, Unit M, Section 36, T-17S, R-28E
Melrose Operating Company Artesia Unit No. 33	30-015-01758	330’ FSL & 1631’ FWL, Unit N, Section 36, T-17S, R-28E
Melrose Operating Company Artesia Unit No. 35	30-015-01785	330’ FNL & 1650’ FWL, Unit C, Section 2, T-18S, R-28E
Melrose Operating Company Artesia Unit No. 37	30-015-01800	990’ FNL & 990’ FEL, Unit A, Section 3, T-18S, R-28E

Well Name & Number	API Number	Well Location
Melrose Operating Company Artesia Unit No. 39	30-015-02542	992' FNL & 2275' FWL, Unit C, Section 3, T-18S, R-28E
Melrose Operating Company Artesia Unit No. 42	30-015-02547	990' FNL & 330' FWL, Unit D, Section 3, T-18S, R-28E
Melrose Operating Company Artesia Unit No. 47	30-015-02545	1980' FNL & 1980' FEL, Unit G, Section 3, T-18S, R-28E
Melrose Operating Company Artesia Unit No. 48	30-015-01789	2310' FNL & 990' FEL, Unit H, Section 3, T-18S, R-28E
Melrose Operating Company Artesia Unit No. 53	30-015-07880	1650' FSL & 1650' FEL, Unit J, Section 3, T-18S, R-28E
Melrose Operating Company Artesia Unit No. 54	30-015-01801	1654' FSL & 2272' FWL, Unit K, Section 3, T-18S, R-28E