

CHRONOLOGY OF EVENTS

12/17/86

Land met with the BLM in Roswell, NM to informally discuss forming a Federal Exploratory Unit. A new drill well would be required to at least drill to the prospective formation that was the basis for forming the unit.

01/14/87

Operations Geology discussed with Land the above events. Land planed contacts with Eastland and Santa Fe Energy. Geology has identified a Delaware-Ramsey sand trend.

01/20/87

Land met with Eastland. Eastland was interested in forming a Federal Unit.

01/22/87

Exxon Land and Geology met with Eastland Oil and Bettis Brothers. Both companies were favorable to forming a unit. Potential Delaware initial test well locations were discussed.

02/19/87

Geology requested that Land nominate open Federal acreage within the proposed unit boundary for the next BLM-KGS lease sale.

02/20/87

Exxon Land and Geology met with Enron, Santa Fe Energy, and Eastland Oil to discuss the unit proposal. After the meeting, Land stated that it takes 85% approval from WI owners for the BLM to approve the unit.

04/14/87

Santa Fe requested and received an extension to December 31, 1987, to spud their farmout option well in Section 33.

05/07/87

Well cost Estimate request for the Laguna Salado Unit was forwarded to Engineering and Drilling from Production Geology.

05/15/87

Land and Operations Geology met with the BLM in Roswell, NM for the Laguna Salado South Unit Preliminary Conference. The proposed unit boundary was adjusted to meet BLM requirements. The BLM advised Exxon that the Initial Test Well should be staked at

least 1/2 mile from the Potash Enclave. Later development wells would be worked one well at a time. With the receipt of revised land plat, Ramesy Sand Isopach map, Geological Report, and an area Type Log, a written conditional BLM unit approval will be sent to Exxon within 5-10 working days.

05/22/87

Land, Geology & Regulatory affairs met with Conrad Coffield, legal counsel to discuss progress and future course of action. since one State of New Mexico lease is within the Unit boundary, a timely meeting with the State Land Office was recommended. An NMOCD examiner hearing would be required before the BLM will give their final Unit approval. The Unit Agreement will have to be signed by 85% of all working Interest Owners before the hearing is held. A target hearing date of July 21, 1987, was set.

06/01/87

Revised land plat, Ramesy Sand Isopach map, Geological Report, and an area Type Log were mailed to the BLM District in Roswell.

06/02/87

Land, Geology, and Regulatory Affairs met with the New Mexico State Land Office (NMSLO) in Santa Fe, NM. After reviewing the Geology and noting the Potash area, the SLO was satisfied that the State lease would be involved in the early phases of the Unit development drilling.

07/20/87

Exxon applied to the BLM for an Application for Designation of Unit Area and Approval of Form of Unit Agreement for the proposed Laguna Salado South Unit.

11/20/87

Received preliminary approval from the SLO for the proposed unit.

12/30/87

Exxon mailed out the proposed Unit Agreement to all Working Interest owners.

03/03/88

Exxon requested ratification of the proposed unit from Santa Fe and CNG. The Unit Operating Agreement was revised to recognize Santa Fe and CNG's concerns.

12/01/88

Exxon proceeds with mailing out revised Unit Agreements and Unit Operating Agreements to all the other working interest owners.

05/22/89

Exxon has received the necessary 85% working interest owner approval (copies of Ratifications attached) and are prepared to secure final approval from the BLM.

02/08/90

Land met with Santa Fe to discuss Laguna Salado in an attempt to proceed with the Unit.

04/06/90

Geology and Regulatory Affairs met with BLM in Roswell to review proposed Unit. BLM asked for a revision in the Unit outline by deleting the automatic inclusion of Section 29: E/2 when said land is no longer in the Laguna Grande Unit. Land updated the Exhibits of the proposed Unit and modified the Unit agreement to reflect changes in regulations since we previously applied for approval from the BLM and the NMSLO.

05/90 to present.

Land has applied for a hearing date with the NMOCD. The hearing has been continued until June 13, 1990. Land has sent the Unit Agreement and the Unit Agreement to the BLM and the NMSLO for preliminary approval. (copies of letters attached). Land has also sent the Unit Agreement and the Unit Operating Agreement to all Working Interests owners together with Ratification instruments (copies of the letters are attached).

LAGUNA SALADO SOUTH UNIT
EDDY COUNTY, NEW MEXICO

GEOLOGY

The proposed Laguna Salado South Unit will test a stratigraphic play of permeable Ramsey sands of the Bell Canyon Formation, Delaware Mountain Group. The accompanying net sand isopach map and structural cross section illustrate the play concept. The proposed exploratory test well, to be located in the NW/4 of Section 22-T23S-R29E, should top the Ramsey sand at 3,000' and penetrate over 80' of net sand ($\phi > 22\%$). Proposed total depth of the initial well will be 13,700' in the Morrow Formation.

The Ramsey sand member of the Delaware-Bell Canyon can be characterized by 2 deep water lithotypes; more massive channel sands dominated by traction deposition within channel trends and silty laminite sands dominated by suspension deposition outside the channel trends. Sands within the channel trends are slightly coarser grained and better sorted with correspondingly higher porosity and permeability than the laminite sands. The laminite sands and the overlying Lamar Limestone member of the Bell Canyon provide a permeability trap and seal for hydrocarbon accumulation within the channel sands.

Locally, the Ramsey channel sands were deposited in a northeast-southwest trend. Width of the channel trend varies from 1 to 4 miles. Sands within the trend were likely deposited as "shingle-like" lateral accretion units with

Exhibit No. 10

Case No. 9937

Hearing Date June 13, 1990

possible permeability pinchouts across the trend. Structure at the base of the Lamar Limestone reflects regional dip with structural noses over the widest parts of the sand trend. Regional dip is to the east-southeast. In this area structure may enhance, but is not a major factor in trap formation.

The Ramsey net sand map shows the possible extent of hydrocarbon accumulation. Assuming communication between sands within the channel trend, a probable reservoir spill point at -80' subsea on top of the Ramsey sand is indicated. Due to the fine grained nature of Delaware sands, thick oil-water transition zones may be present and a possible extent of commercial oil production is indicated at -180' subsea.

PREVIOUS DRILLING

To date, four wells have been drilled within the proposed unit area: three Morrow tests - Laguna Grande Unit (L.G.U.) #1, NE/4 SE/4, Section 28; L.G.U. #2, SE/4 SW/4 Section 27; L.G.U. #3, NW/4 SE/4, Section 29; and one Bone Springs test - The Blakemore Estate Federal #1, NW/4 SE/4, Section 28. None of the wells ran drill stem tests or production tests in the Ramsey sand.

The L.G.U. #1, originally completed in the Morrow in March, 1976, is now operated by Eastland Oil Company as a shut in Bone Springs oil well. The L.G.U. #2 was completed in December, 1977, as a dry hole after testing for Morrow and Wolfcamp gas. The L.G.U. #3, completed in January, 1981, is currently a producing Atoka gas well. The Blakemore Estate Federal #1 was dry and abandoned in May, 1984, after testing water with a trace of oil in the Delaware-Brushy Canyon. As shown on the accompanying cross section all 4 wells have fair to good porosity development in the Ramsey sand.

Additionally, the L.G.U. #1 and L.G.U. #3 had trace and fair mudlog shows respectively. The Blakemore #1 did not have a show in the Ramsey, and a mudlog was not run on the L.G.U. #2.

UNIT BOUNDARIES

Boundaries of the proposed 7040 acre Laguna Salado South Unit are based on geologic consideration of the primary objective-the Delaware Ramsey sands, the recognized limits of adjacent Nash Draw and Laguna Grande Units, and potentially successful tests of deeper secondary objectives. As illustrated on the net sand isopach map, the western boundary for the proposed Unit is based on the probable updip (northwestward) extent of relatively thick (>20 net feet), permeable Ramsey sands at the widest portion of the channel trend, with the northern and southern boundaries conforming to the narrowing of the trend. An exemption of the E/2 of Section 29 from the proposed Unit reflects its current inclusion in Laguna Grande Unit, a contracted Federal Exploratory Unit, that had the Morrow as its primary objective. Note that Delaware potential exists outside (to the west) of the 20' net sand contour line, but is less prospective due to thinning reservoir-zero feet thick at the Ramsey's stratigraphic pinchout. The eastern boundary conforms to the downdip limit of possible commercial production. At the northeastern corner of the proposed Unit, the east line of Sections 10 (S/2) and 15 and the north line of Section 23 coincide with the boundary of the existing Nash Draw Unit. Although the Ramsey reservoir, which would be assigned 40-acre proration units, is the primary objective; Unit boundaries conform to 320-acre proration units because the proposed Unit includes all depths/formations. The 320-acre proration units will be necessary should secondary objectives of the Atoka and/or Morrow Formations prove productive in the exploratory test well and/or development wells. Note, however, that all acreage within the proposed Unit boundaries is prospective in the Ramsey sand.

SUMMARY

The Laguna Salado South Unit is a high-risk, stratigraphic prospect with the downdip productive limits difficult to define. However, regional geologic factors, well control, and mudlog shows on previously drilled wells offer encouragement that porous-permeable sands are present and production can be established.

JRB 4/87

Revised JMK 5/90