III. GEOLOGICAL INFORMATION:

Α.	Ground Elevation	n:	3,758'
B.	Formation Tops:	Sand Andres	4,780'
		Penn	10,030'
		Mississippi	11,410'
		Woodford	12,650'
		Devonian	12,760'
		PTD	13,100'

IV. CEMENT PROGRAM:

Slurry designs included here are subject to change as hole and coverage conditions dictate.

A. Surface Casing: 13-3/8", 48#, H-40 set @ 450' in 171/2" hole.

Procedure: Run guide shoe, 1 Jt, insert float, and sufficient 13-3/8" csg to land shoe at or below 400' strap weld

shoe and first collar. Run a centralizer at shoe and at top of 2nd and 4th Jts.

Cementing: Cement w/495 sxs of Class "C" w/2% CaCl₂ + 56% water. Record the following information for

New Mexico Oil Conservation Division report; (see page C-11, NM Rules & Regulations).

- Volume of cement (in ft³), Brand name and additives, percent additives used, and sequence of placement if more than one slurry is used.
- 2) Temperature of cement when mixed.
- 3) Estimated minimum formation temperature in zone of interest.
- 4) Estimate of cement strigth at time of dril out or test.
- 5) Actual time cement in place at time of test or drillout.

Drill Out &Testing: WOC 12 hrs minimum, drill out to \pm 10' of shoe. PU drillstring \pm 10', and close annular and

test casing to 600 psig.

B. Intermediate Casing: 9-5/8", 40#, J-55 & N-80 set @ 5,000' in 121/4" hole.

(Run log to gauge hole volume to determine actual cement volumes to be pumped).

Procedure: Run guide shoe, 1 jt N-80, float collar and approx. \pm 960' of N-80. Then run sufficient J-55 to land

shoe at or below 4600'. Strap weld shoe and first collar, run a centralizer at shoe and every other collar

using a total of 14 centralizers.

Cementing: Cement w/1470 sxs of Pacesetter Lite (C) + 6% gel + 5% salt + 0.25 lb/sk cello-seal + 109.7%

water followed w/450 sxs Class "C" + 56% water. Record 5 parameters as above.

Drill Out &Testing: WOC 12 hrs minimum or until bottom w/1000' of cement attains 500 psi. Drill cement to

within \pm 10' of shoe. PU drillstring 10' and close pipe ram. Test casing to 1400 psig. Drill out cement plus 5' to 10' of new hole. PU drill string into casing and test casing shoe to 12

ppg MWE.

C. <u>Production Casing:</u> 5½" 17# S-95 set at 13,100' in 7-7/8" hole.

Procedure: Run float shoe, 1 jt S-95, float collar, remainder of 5½" 17# S-95 to land shoe at 12,750'. Thread lock shoe and float collars. Sand blast casing for 100' above and 100' below prospective pay zones. Run

centralizers at shoe and as required through pay zones. NOTE: Casing design should be recalculated if

MW exceeds 10.5 ppg at TD.

Cementing: Cement w/595 sxs of Class "H" plus 10% salt, 0.8% CF-14A, and 57% water. Record 5 cement

parameters as above for NM OCD report.

V. TESTS:

A. Slope:

1. Surface Hole: Run survey at TD.

Maximum deviation to be 2°, 1½° per 100'.

2. Intermediate Hole: Run surveys every 500' and at 4600'.

Maximum deviation to be 5°, 1½° per 100'.

3. Production Hole: Survey every 500' to TD.

Maximum deviation to be 5°, 1½° per 100'.

B. Pressure:

- 1. 13-3/8":
 - (a) Test BOP (Annular) to 1000 psig ofter NU.
 - (b) Test casing to 600 psig prior to drilling out.
- 2. 9-5/8":
 - (a) Test BOP stack & manifold to 3000 psig after NU. Test annular to 1500 psig.
 - (b) Test casing to 1500 psig prior to drilling out.
 - (c) Test casing shoe to 12 ppg MWE.

VI. SUGGESTED MUD PROPERTIES

To Be Determined

VII. MUD LOGGING:

A. Mud logger: (on and logging at 12,000', with hot wire and chromatograph.)

Quality Consultants

O: (915) 682-7168

Bill Simmons

P.O. Box 2463

Midland, TX 79702

B. Samples: Save 10' samples from 4,600' to TD.

VIII. OPEN HOLE LOGGING PROGRAM:

Western Atlas: DLL/CNL/ZDL/MLL

Hobbs, New Mexico (505) 393-4181

Mgr: David Kassisieh Contact: Richard Smith

Company man to alert logger.

IX. REPORTING PROCEDURES:

A. The Rig Supervisor will call/fax in InterCoast Oil and Gas Company's Daily Drilling Report beginning on the day of rig move in through rig release.

Weekdays: InterCoast Oil and Gas Co. Office: (918) 491-4114 Fax: (918) 488-8750

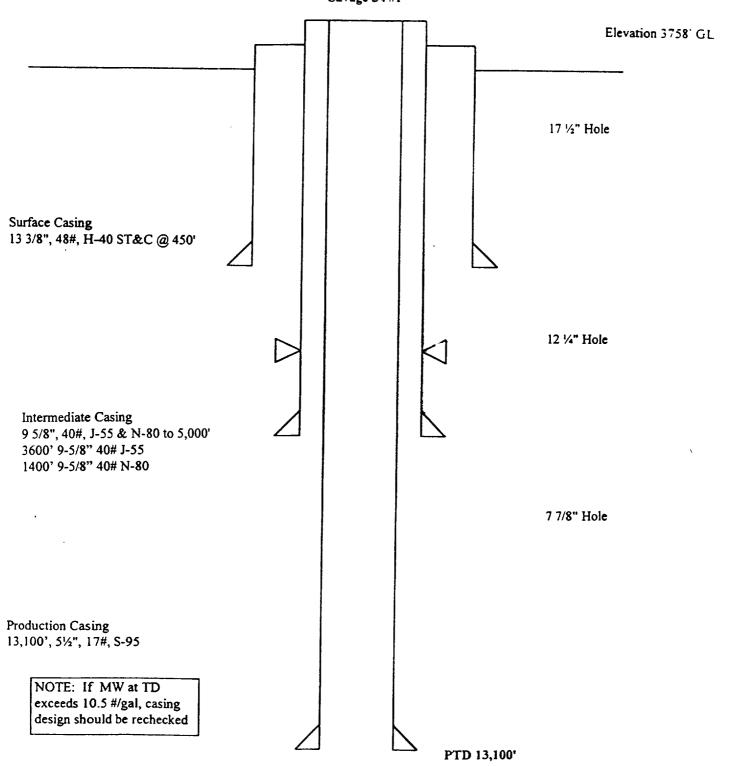
Weekends: Lee C. Francis at (918) 371-4525.

B. The mud logger will call in the morning report to the operator's geologist:

Mark Scott O: (214) 692-1771 H: (972) 495-7611 Fax: (214) 692-1772

CASING PROGRAM

Chrysler B Prospect Savage 34 #1



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. 11614 Order No. R-10693

APPLICATION OF INTERCOAST OIL & GAS COMPANY FOR A UNIT AGREEMENT AND AN UNORTHODOX OIL WELL LOCATION, LEA COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on October 3, 1996, at Santa Fe, New Mexico, before Examiner Michael E. Stogner.

NOW, on this <u>4th</u> day of November, 1996 the Division Director, having considered the testimony, the record and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

- (1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) The applicant, InterCoast Oil and Gas Company ("InterCoast"), seeks approval of its Savage Exploratory Unit Agreement and Area underlying the following described 160 acres, more or less, of fee land in Lea County, New Mexico:

TOWNSHIP 14 SOUTH, RANGE 38 EAST, NMPM

Section 34: W/2 NE/4 and E/2 NW/4.

- (3) The "Unitized Formation" or "Interval" should include the interval known as the Devonian formation.
- (4) Currently, the closest designated Devonian oil pool is the Denton-Devonian Pool located four miles to the west in Townships 14 and 15 South, Range 37 East, NMPM,



Lea County, New Mexico. Therefore any Devonian oil production encountered within the proposed Unit Area will be considered "wildcat" production and will therefore be subject to Division General Rule 104.B(1)(b), which requires 40-acre spacing and proration units and well locations to be no closer than 330 feet to the outer boundary of such designated 40-acre tract.

- (5) InterCoast seeks to drill its initial Devonian test well within the proposed Savage Exploratory Unit at an unorthodox oil well location 1275 feet from the North line and 2600 feet from the East line (Unit B) of said Section 34. The NW/4 NE/4 (Unit B) of said Section 34 is to be dedicated to said well to form a standard 40-acre oil spacing and proration unit.
- (6) At the time of the hearing the applicant presented a geological interpretation based upon well control and surface seismic data of the Devonian formation in the immediate area which indicates that a well drilled at the proposed unorthodox location should penetrate a small localized structure within the Devonian formation at a more advantageous position than a well drilled at a standard oil well location within any of the subject four 40-acre tracts that comprise the subject Unit Area, thereby increasing the likelihood of obtaining commercial production.
- (7) Further, by combining the four 40-acre tracts (NW/4 NE/4, SW/4 NE/4, NE/4 NW/4, and SE/4 NW/4 of said Section 34) into a single exploratory unit where all interest in the affected drainage area of this well will share, correlative rights are assured to be protected. At the time of the hearing testimony was presented which indicated that <u>all</u> or 100 % of the working interest owners within the subject 160-acre area have joined the Unit; however <u>not all</u>, approximately 50 %, of the royalty interest owners have committed to the Unit. At the time of the hearing the applicant was awaiting a title opinion in order for him to contact all of the remaining royalty interest owners to provide them the opportunity to join or ratify the Unit Agreement.
- (8) In this instance, where the proposed well location is in or near the middle of the subject 160-acre Unit Area based upon the geology, and where the potential drainage of the reservoir from the proposed well will include productive acreage in the 120 acres included in the 160-acre Unit Area but outside the 40-acre spacing and proration unit dedicated to the well, the correlative rights of those royalty interest owners who either do not, or are not provided the opportunity to, commit their interests to the Unit would be violated. Therefore, each royalty interest owner within the subject 160-acre Unit Area must be adequately and fairly compensated for its fair share as if that owner had ratified the Unit Agreement.

- (9) Approval of this application will afford the applicant the opportunity to test for and, if successful, produce its just and equitable share of the oil in the Devonian formation, will prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells and will otherwise prevent waste.
- (10) At the time of the hearing no other party other than the applicant entered an appearance in this matter.
- (11) All plans of development and operation, and creations, expansions or contractions of participating areas, or expansions or contractions of the unit area should be submitted to the Director of the Division for approval.

IT IS THEREFORE ORDERED THAT:

(1) The Savage Exploratory Unit Agreement, executed by InterCoast Oil and Gas Company ("InterCoast"), is hereby approved for all oil and gas in the Devonian formation underlying the following described 160 acres, more or less, of fee land in Lea County, New Mexico:

TOWNSHIP 14 SOUTH, RANGE 38 EAST, NMPM

Section 34: W/2 NE/4 and E/2 NW/4.

- (2) The plan contained in said unit agreement for the development and operation of the unit area is hereby approved in principle as a proper conservation measure; provided however, notwithstanding any of the provisions contained in said unit agreement, this approval shall not be considered as waiving or relinquishing, in any manner, any right, duty or obligation which is now, or may hereafter be, vested in the Division to supervise and control operations for the unit and production of oil and gas therefrom.
- (3) The unit operator shall file with the Division an executed original or executed counterpart of the unit agreement within 30 days after the effective date thereof; in the event of subsequent joinder by any other party or expansion or contraction of the unit area, the unit operator shall file with the Division, within 30 days thereafter, counterparts of the unit agreement reflecting the subscription of those interests having joined or ratified.

IT IS FURTHER ORDERED THAT:

(4) The subject Unit operator shall assure that and provide that each royalty interest owner within the subject 160-acre Unit Area shall be adequately and fairly compensated for its fair share as if that party had ratified the Unit Agreement.

- (5) All plans of development and operation, all unit participating areas and expansions or contractions of the unit area, shall be submitted to the Director of the Oil Conservation Division for approval.
- (6) This order shall terminate upon the termination of said unit agreement; and the last unit operator shall notify the Division immediately in writing of such termination.

FURTHER:

- (7) InterCoast is further authorized to drill the Unit's initial Devonian test well within the proposed Savage Exploratory Unit at an unorthodox oil well location 1275 feet from the North line and 2600 feet from the East line (Unit B) of said Section 34.
- (8) The NW/4 NE/4 (Unit B) of said Section 34 is to be dedicated to said well to form a standard 40-acre oil spacing and proration unit.
- (9) Jurisdiction of this cause is 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

WILLIAM J. LEMAY

Director

SEAL

