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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. 10685
CASE NO. 10686

APPLICATIONS OF HANSON OPERATING
COMPANY

REPORTER'S TRANSCRIPT OF PROCEEDINGS

EXAMINER HEARING

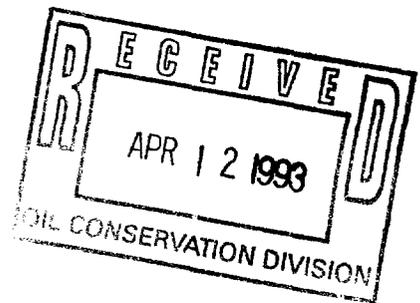
BEFORE: Michael E. Stogner, Hearing Examiner

March 18, 1993

Santa Fe, New Mexico

This matter came on for hearing before the
Oil Conservation Division on March 18, 1993, at the
Oil Conservation Division Conference Room, State Land
Office Building, 310 Old Santa Fe Trail, Santa Fe, New
Mexico, before Deborah O'Bine, RPR, Certified Court
Reporter No. 63, for the State of New Mexico.

ORIGINAL



I N D E X

March 18, 1993
 Examiner Hearing
 CASE NOS. 10685 and 10686

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FOR THE DIVISION: ROBERT G. STOVALL, ESQ.
 General Counsel
 Oil Conservation Commission
 State Land Office Building
 310 Old Santa Fe Trail
 Santa Fe, New Mexico 87501

FOR THE APPLICANT CAMPBELL, CARR, BERGE &
AND YATES PETROLEUM SHERIDAN, P.A.
CORPORATION: P.O. Box 2208
 Santa Fe, New Mexico 87504
 BY: WILLIAM F. CARR, ESQ.

1 EXAMINER STOGNER: Call next case No. 10685.

2 MR. STOVALL: Application of Hanson
3 Operating Company for statutory unitization, Eddy
4 County, New Mexico.

5 EXAMINER STOGNER: Call for appearances.

6 MR. CARR: May it please the Examiner, my
7 name is William F. Carr. I'm with the Santa Fe law
8 firm, Campbell, Carr, Berge & Sheridan. I represent
9 Hanson Operating Company, Inc., and I have three
10 witnesses.

11 At this time, Mr. Examiner, I would request
12 that this case be consolidated for the purpose of
13 hearing with Case No. 10686, which is the waterflood
14 project within the unit area. Separate orders we
15 would request be heard, but the testimony would be
16 overlapping.

17 EXAMINER STOGNER: Thank you, Mr. Carr.
18 Are there any other appearances in 685?

19 MR. CARR: Mr. Stogner, I also need to
20 enter an appearance in the case on behalf of Yates
21 Petroleum Corporation. Yates is in support of the
22 application.

23 EXAMINER STOGNER: I'm sorry, Yates
24 Petroleum Corp.?

25 MR. CARR: Yes, sir.

1 EXAMINER STOGNER: Any other appearances?

2 At this time I'll case No. 10686.

3 MR. STOVALL: Application of Hanson
4 Operating Company, Inc., for approval of a waterflood
5 project, Eddy County, New Mexico.

6 EXAMINER STOGNER: Other than Mr. Carr
7 entering an appearance as far as Hanson and Yates, are
8 there any other appearances in either of these cases?

9 Thank you, Mr. Carr.

10 Will the witnesses please stand and be
11 sworn, all three of you?

12 (Witnesses sworn.)

13 MR. CARR: At this time, Mr. Stogner, we
14 call Ken Hammonds.

15 KENTON A. HAMMONDS,
16 the witness herein, after having been first duly sworn
17 upon his oath, was examined and testified as follows:

18 EXAMINATION

19 BY MR. CARR:

20 Q. Will you state your name for the record,
21 please.

22 A. Yes, sir. Kenton A. Hammonds.

23 Q. By whom are you employed?

24 A. Hanson Operating Company.

25 Q. And in what capacity?

1 A. As landman.

2 Q. Have you previously testified before this
3 division?

4 A. No, sir, I have not.

5 Q. Could you summarize for Mr. Stogner your
6 educational background?

7 A. I have a B.A. from Texas Tech University in
8 government and subsequent education including
9 designation as CPL.

10 Q. When did you receive your degree?

11 A. In 1973.

12 Q. Could you briefly review your work
13 experience since that time?

14 A. I've served 12 years in the oil and gas
15 industry, and prior to that time as an abstracter.

16 Q. Has the work with the oil and gas industry
17 been as a petroleum landman?

18 A. Yes, sir, it has.

19 Q. Are you familiar with the applications
20 filed in each of these consolidated cases?

21 A. Yes, sir, I am.

22 Q. Are you familiar with the status of the
23 lands involved in the proposed Benson Shugart
24 Waterflood Unit?

25 A. Yes, sir.

1 MR. CARR: We would tender Mr. Hammonds as
2 an expert witness and petroleum landman.

3 MR. STOVALL: Before you do, you referred
4 to CPL. We may know what it is, but the record won't.
5 What does it stand for?

6 THE WITNESS: It's Certified Professional
7 Landman by the American Association of Petroleum Landmen.

8 MR. STOVALL: Is that a designation that
9 has to be earned, or what are the requirements for that?

10 THE WITNESS: It is an eight-hour exam and
11 a limited -- or I think about ten years of experience
12 in landman work in the oil industry.

13 MR. STOVALL: Thank you.

14 EXAMINER STOGNER: Mr. Hammonds is so
15 qualified.

16 Q. (BY MR. CARR) Mr. Hammonds, would you
17 briefly state what Hanson seeks with this application?

18 A. We seek statutory unitization of our
19 proposed Benson Shugart Waterflood Unit and approval
20 of our proposed waterflood project in that unit.

21 Q. How large is the proposed unit?

22 A. Nine hundred and eleven acres.

23 Q. Could you refer to what has been marked for
24 identification as Hanson Exhibit No. 1, and first
25 identify this and review the information on this for

1 the examiner?

2 A. Exhibit 1 is our unit area plat. I've
3 colored in yellow the proposed Benson Shugart
4 Waterflood Unit and in blue an additional proposed
5 waterflood that I think the Commission is familiar
6 with, proposed by Yates Petroleum Corporation.

7 Q. Are there other waterfloods in this area?

8 A. Yes, sir. Previously existing floods in
9 Section 30 to the east as shown on the plat, Southland
10 Royalty has operated a waterflood there for many
11 years. I think in its most extended term of its life.
12 And to the south, B & A Operating operates the Culwin
13 Queen Unit.

14 Q. Could you initially review for the examiner
15 the efforts made by Hanson and Yates to develop this
16 area and to study the feasibility of it?

17 A. Yes, sir. We began three to four years ago
18 in a joint effort to study the feasibility of a flood
19 in this particular area. In concert, we retained
20 Williamson Petroleum Consultants to study from a
21 feasibility basis the feasibility of the flood itself.

22 That was completed. Feasibility was highly
23 recommended. And subsequent to that time, it was
24 concluded that the better way to proceed would be to
25 have two concurrent floods, cooperative in nature,

1 with two separate operators.

2 Q. And so on Exhibit 1, the acreage shaded in
3 blue is the Creek AL leased waterflood that is
4 currently being proposed by Yates?

5 A. That is correct.

6 Q. And then the unit area that we're talking
7 about here today is the acreage shaded in yellow on
8 Exhibit No. 1?

9 A. That's correct, sir.

10 Q. Let's go to Exhibit No. 2, and I'd ask you
11 to first just identify this.

12 A. Exhibit No. 2 is the Unit Agreement that
13 has been -- it's a boilerplate Unit Agreement that's
14 been approved and recommended for our use by the BLM.

15 Q. What is the character of the lands in the
16 unit area?

17 A. It is composed of both federal and fee
18 acreage. There's no state acreage involved.

19 Q. How much of the acreage is federal?

20 A. 95, approximately 95 percent.

21 Q. And then you have how much fee?

22 A. We have a 40-acre tract that is fee.

23 Q. Does this agreement provide for waterflood
24 operations?

25 A. Yes, sir, it does.

1 Q. And it sets out the participation for each
2 of the parties?

3 A. Yes, sir.

4 Q. Does it provide for the periodic filings of
5 plans and development?

6 A. Yes, it does.

7 Q. Will those plans be filed with the Oil
8 Conservation Division at the time they're filed with
9 other agencies?

10 A. Yes, sir, they will.

11 Q. Let's refer to Exhibit B to the Unit Agreement,
12 and I'd ask you to identify that, and then referring
13 to that, advise the examiner of the efforts made by
14 Hanson to obtain voluntary joinder in this project.

15 A. Exhibit B, the last page of Exhibit ~~B~~^{2, 3} sums
16 up the unit percentage participation interest on a
17 tract-by-tract basis.

18 Q. That's the last page of Exhibit No. 2?

19 A. Yes, sir, Exhibit B to that Unit
20 Agreement. We have, through certified mail, contacted
21 every economic interest in the unit and informed them
22 of the proposal. We have 92 percent in hand approval.

23 Q. Which of the working interest owners shown
24 on the last page of Exhibit No. 2 have not voluntarily
25 committed to this unit?

1 A. There are -- the first one would be Grover
2 N. Shrader, the second one appearing on that last
3 page. Mr. Shrader recently has elected to sell his
4 interest to Hanson Operating Company.

5 Q. Those agreements are not in hand though?

6 A. Those agreements are not in hand.
7 Conversation yesterday indicated they're in the mail
8 or deposited for collection with his bank. We're
9 handling it through a site draft.

10 The Loffland Group is composed of three
11 separate entities appearing on the exhibit. The first
12 interest, Barbara Loffland Middleton, and the second
13 to the last two entries at the bottom of the page, the
14 Margaret R. Loffland Trust and Tom R. Loffland.

15 Summed together, their unit interest would
16 be 2.29 percent. There has been a recent death in the
17 family, and things were in disarray. They haven't
18 elected to join. We think they will. We're being
19 patient and waiting on them.

20 The only entity that we expect will not
21 voluntarily join is Hilo, H-I-L-O, Development, and that's
22 the one interest that we don't expect to voluntarily
23 join, comprising 2.7 percent unit working interest.

24 Q. So if you are able to obtain voluntary
25 joinder from the Shrader and the Loffland interest,

1 how much of the unit working interest ownership will
2 be voluntarily committed to this effort?

3 A. Approximately 97.3 percent.

4 Q. Let's go to what has been marked as Exhibit
5 No. 3, and I'd ask you to identify that, please.

6 A. Exhibit No. 3 is a standard form Unit
7 Operating Agreement.

8 Q. Does it provide for a penalty if a party
9 does not voluntarily pay his share of the unit
10 expenses?

11 A. Yes, sir, it does. Article 11.5 provides
12 for a cost plus 200 percent penalty regarding a
13 participating party who defaults.

14 Q. And this is otherwise basically a standard
15 Unit Operating Agreement?

16 A. Yes, sir, it is.

17 Q. It just generally defines the rights and
18 obligations of the parties?

19 A. Yes, sir, it does.

20 Q. And you will have 97 percent of the working
21 interest owners you believe voluntarily committed to
22 this contract?

23 A. Yes, sir, we do.

24 Q. Has Hanson reviewed the proposed unit with
25 the Bureau of Land Management?

1 A. We have.

2 Q. Would you identify in that regard what has
3 been marked as Hanson Exhibit No. 4?

4 A. Hanson Exhibit No. 4 is the preliminary
5 approval letter that has been issued to us by the BLM
6 in Roswell.

7 Q. Did the BLM in fact suggest that the name
8 be changed to the Benson Shugart Waterflood Unit?

9 A. Yes, sir, they did.

10 Q. And did they propose any recommendations to
11 the boundary of the unit?

12 A. They did. They had us eliminate a 40-acre
13 tract in Section 35, being described as the southeast
14 of the northeast, which we had initially proposed to
15 be included which is now excluded.

16 Q. With the preliminary approval from the
17 Bureau of Land Management, that would give you the
18 approval of 95 percent of the royalty interest; is
19 that right?

20 A. That's correct.

21 Q. Now, as to the remaining 40-acre tract, has
22 that royalty interest been voluntarily committed to
23 the unit plan of development?

24 A. 50 percent of that royalty interest is in
25 hand, and the outstanding 50 percent, a gentleman we

1 have spoken with yesterday, he was unaware that he
2 needed to do anything in regard to the unit; and so I
3 advised him what he needed to do, and it's in the mail
4 he advised us.

5 Q. So you anticipate you'll have 100 percent
6 of the royalty interest participating in this unit?

7 A. Yes, sir, we do.

8 Q. What is the status of the overriding
9 royalty interest in the unit area?

10 A. There is a total of 4.8 percent overriding
11 royalty interest, 4.4 percent is committed, and .37
12 percent is uncommitted.

13 Q. In your opinion, Mr. Hammonds, have you
14 attempted to, in good faith, identify all interest
15 owners in the unit area and obtain their voluntary
16 joinder?

17 A. Yes, sir, we have.

18 Q. Has notice of this hearing been provided to
19 all working interest owners and all royalty interest
20 owners in the proposed unit area?

21 A. Yes, sir, it has.

22 Q. Could you identify what has been marked as
23 Hanson Exhibit No. 5?

24 A. Exhibit No. 5 is an Affidavit confirming
25 notice that application has been given in accordance

1 with the OCD rules and regulations.

2 Q. And then what is Exhibit No. 6?

3 A. Exhibit No. 6 are photocopies of the two
4 certified letters that we mailed informing all the
5 economic interest owners in the unit of the hearing
6 before the OCD.

7 Q. As to the statutory unitization in the
8 case, you've notified all owners in the unit area;
9 correct?

10 A. Yes, sir, we have.

11 Q. Who has been notified of the waterflood
12 application?

13 A. The same, the same people.

14 Q. Have you notified all leasehold operators
15 within a half mile of an injection well?

16 A. Yes, sir, we have.

17 Q. Have you notified the owner of the surface
18 of every tract on which an injection will be located?

19 A. We have.

20 Q. Were Exhibit 1 through 6 prepared by you?

21 A. Yes, sir, they were.

22 MR. CARR: At this time, Mr. Stogner, we
23 would move the admission of Hanson Exhibits 1 through
24 6.

25 EXAMINER STOGNER: Exhibits 1 through 6

1 will be admitted into evidence at this time.

2 Q. (BY MR. CARR) Mr. Hammonds, will Hanson
3 also call engineering and geological witnesses to
4 present the technical aspects of this case?

5 A. Yes, sir.

6 MR. CARR: That concludes my examination of
7 Mr. Hammonds.

8 EXAMINER STOGNER: Thank you, Mr. Carr.
9 Mr. Stovall?

10 EXAMINATION

11 BY MR. STOVALL:

12 Q. First, Mr. Carr, Mr. Hammonds, is it
13 correct to state that the people who have received
14 notice are those whose names appear on the exhibits,
15 Exhibit 6?

16 A. Yes, sir. We've attached the mailing list.

17 Q. Would you mind attaching that to --
18 modifying the affidavit and attaching that to the
19 affidavit to show --

20 A. Certainly.

21 MR. CARR: We'll do that.

22 Q. (BY MR. STOVALL) I notice there is a Gas
23 Balancing Agreement as part of the Unit Operating
24 Agreement?

25 A. Yes, sir.

1 Q. Are you familiar with that Gas Balancing
2 Agreement?

3 A. I am.

4 Q. What provision does it make, or is it an
5 issue with respect to royalty owners, payment of
6 sales? Do they receive their share regardless of who
7 is selling the gas?

8 A. I'm familiar with it, but I can't answer
9 that question at this point. We would have to get
10 into the agreement and look. We felt -- we don't
11 anticipate gas production. We felt it prudent to
12 attach one in anticipation of the possibility.

13 MR. STOVALL: Okay. I think that's all I
14 have

15 EXAMINATION

16 BY EXAMINER STOGNER:

17 Q. Just for the record, referring to Exhibit
18 No. 1, you mentioned that the BLM had you exclude a
19 40-acre tract. What is that 40-acre tract?

20 A. It is located in Section 35. There's a
21 40-acre tract that sticks down on the south end that
22 used to include the southeast-northeast contiguous on
23 the south side of that 40-acre tract, and it was
24 excluded at THE BLM request.

25 Q. And that is the only exclusion that has

1 been made?

2 A. That is correct.

3 Q. And you're seeking also the 200 percent
4 nonjoinder clause; is that correct?

5 A. Yes, sir.

6 EXAMINER STOGNER: I have no other
7 questions of Mr. Hammonds at this time.

8 MR. STOVALL: Let me just, one thing on the
9 200 percent, the statute provides for actual
10 forfeiture of the interest is permissible. If I read
11 the agreement correctly, you're not actually seeking a
12 forfeiture of the interest but rather a lien on the
13 proceeds of production?

14 THE WITNESS: That's correct.

15 EXAMINER STOGNER: Anything else of this
16 witness?

17 MR. CARR: Nothing further on Direct.

18 EXAMINER STOGNER: He may be excused at
19 this time.

20 THE WITNESS: Thank you.

21 MR. CARR: At this time we call Gary
22 Fitzsimmons.

23 GARY FITZSIMMONS,
24 the witness herein, after having been first duly sworn
25 upon his oath, was examined and testified as follows:

EXAMINATION

1
2 BY MR. CARR:

3 Q. Would you state your full name for the
4 record, please.

5 A. Gary Fitzsimmons.

6 Q. By whom are you employed?

7 A. Hanson Operating.

8 Q. And in what capacity?

9 A. Chief geologist.

10 Q. Have you previously testified before this
11 Division?

12 A. Yes, I have.

13 Q. At the time of that testimony, were your
14 credentials as a geologist accepted and made a matter
15 of record?

16 A. Yes, they were.

17 Q. Are you familiar with the applications
18 filed in these cases on behalf of Hanson?

19 A. Yes, I am.

20 Q. Have you made a geological study of the
21 portions of the formations which are involved in this
22 case?

23 A. Yes, I have.

24 MR. CARR: Are the witness's qualifications
25 acceptable?

1 EXAMINER STOGNER: Mr. Fitzsimmons is so
2 qualified.

3 Q. (BY MR. CARR) Have you prepared certain
4 exhibits for presentation here today?

5 A. Yes, I have.

6 Q. Before we do that, could you just identify
7 the formations we're attempting to unitize in this
8 project?

9 A. The specific formations that will be
10 flooded include the Seven Rivers, the Queen, and the
11 Grayburg. The overall formations included in the pool
12 designation by the OCD include the Yates, also.

13 Q. Let's go to what has been marked Hanson
14 Exhibit No. 7, and I'd ask you to identify and review
15 that for the examiner.

16 A. This is a log of the Ginsberg Federal No.
17 13. This is the well that we use to define the zones
18 that we're going to be flooding.

19 Q. Do you want to point out those zones for
20 us?

21 A. If you refer to the log, the Seven Rivers
22 zone, which we have designated as the Seven Rivers C
23 zone, is located from 2410 to 2440.

24 The Queen zone that we're going to flood is
25 a Penrose sand, which we refer to as the third Penrose

1 sand, which is located from 3100 to 3112.

2 And the Grayburg zone that we plan to
3 flood, we designate the third Grayburg sand which is
4 located 3383 to 94.

5 Q. Mr. Fitzsimmons, let's go now to Exhibit
6 No. 8. Would you identify this for the examiner?

7 A. Exhibit No. 8 is a Seven Rivers structure
8 map.

9 Q. Would you review this, please.

10 A. It shows that the regional dip is to the
11 southeast. It also contains the boundary of the Seven
12 Rivers Reservoir that we're planning on flooding. And
13 it also contains the cross-section line A-A', which
14 shows the specific zone that we're going to flood.

15 Q. Let's move to Exhibit No. 9, your structure
16 map on the Mid-Grayburg and now review that?

17 A. This is a Middle Grayburg structure map
18 that represents the Queen and Grayburg structure.
19 Again, it shows the same southeast dip. Also included
20 on the map is the boundary of the reservoir that we
21 plan to flood in the Queen and Grayburg.

22 And also contained is the cross-section
23 B-B', which shows those specific zones.

24 Q. If we look at Exhibits 7 and 8 together, it
25 appears that the floodable portion of the Seven Rivers

1 and the floodable portion of the Mid-Grayburg really
2 do not overlap; is that correct?

3 A. Yes -- you mean Exhibits 8 and 9?

4 Q. Yes.

5 A. Yes. We found, my interpretation is that
6 there is no overlap between the reservoirs found in
7 the Queen-Grayburg and the Seven Rivers Reservoir.

8 Q. Okay, Mr. Fitzsimmons, let's go now and
9 look at the northern boundary of this unit as shown on
10 Exhibit No. 9.

11 A. Okay.

12 Q. Could you review how you anticipate the
13 flood in the Mid-Grayburg to affect this portion of
14 this pool?

15 A. Okay. The eastern -- the northeast portion
16 of Section 25, as Ken mentioned earlier, there's a
17 flood that was put in effect in Section 19-30. And
18 it's been -- in my study, I found that the two wells
19 in the east half of the northeast of Section 25
20 received a flood response from an injection well
21 located in the northwest quarter of Section 30,
22 designated No. 7 on the map, and it's my understanding
23 that these wells are producing significant water at
24 this time.

25 In our wells located in the west half of

1 the northeast of Section 25, that would be the No. 3
2 and No. 4 well, we have yet to experience any of that
3 flood response. So it's my opinion that that flood
4 front that emanated from the No. 7 well has not
5 reached our wells, and that we have area there that
6 needs to be flooded.

7 The western part of the northern half is
8 Yates acreage, and they're going to go into a
9 cooperative flood with us. So the whole area
10 essentially will be flooded with two cooperative
11 floods.

12 Q. Let's now go to Hanson Exhibit No. 10.
13 Would you identify and review that?

14 A. This is the cross-section that designates
15 that the specific zone we plan to flood in the Seven
16 Rivers. We've elected to flood this particular zone
17 based on what we have determined from our production
18 histories. And we've determined that the
19 preponderance of the oil did come from this particular
20 zone in the Seven Rivers.

21 Q. Would you now go to your Exhibit 11, the
22 cross-section in the Queen-Grayburg and review that?

23 A. This, again, is a cross-section -- this
24 particular cross-section designates the two zones that
25 we're going to flood in the Queen-Grayburg. Again,

1 these zones were chosen because they provided the
2 preponderance of oil in the Queen-Grayburg producing
3 interval.

4 Q. Mr. Fitzsimmons, why is Hanson including
5 both of these zones in one waterflood project?

6 A. Because, to be consistent with the OCD
7 rules, the pool rules, we needed to include both.

8 Q. Let's go now to Hanson Exhibit No. 12.
9 Would you identify and review that?

10 A. This is a production map of production in
11 the area. When we determined our unit boundaries, we
12 selected production to be the primary factor on which
13 we determined the boundaries because, number one, the
14 field was in -- it's the last phases of primary
15 production, and a good well should represent good
16 reservoir, and a poor well should represent a poor
17 reservoir.

18 In addition, it's an old area with old
19 logs, and I found the logs not to be a diagnostic
20 determination of permeabilities.

21 Q. So in view of the quality of the logs
22 available to you, was production, in your opinion, the
23 most accurate tool to utilize in setting the
24 boundaries?

25 A. Yes, sir, I think it is.

1 Q. So that's how the overall boundary was set
2 for this production. And then the northern boundary
3 is just the lease line with Yates lease?

4 A. Right.

5 Q. Let's move to Exhibit No. 12. Identify and
6 review that.

7 A. Now, this is essentially a composite map
8 that pools all the previous information together. It
9 shows how we --

10 MR. STOVALL: Let me interrupt you just a
11 second. I think that's 13. Twelve is your production
12 map?

13 MR. CARR: I'm sorry, that's correct, this
14 is 13.

15 THE WITNESS: And it just pulls all the
16 information together. It shows the production of the
17 specific wells. It outlines the permeability limits
18 as determined by the production response. It shows
19 the Queen-Grayburg area that we plan to flood, the
20 Seven Rivers area that we plan to flood, and the
21 Queen-Grayburg area that has already experienced
22 flood.

23 Q. (BY MR. CARR) In your opinion, can the
24 portions of the pool which are included in the
25 proposed waterflood be efficiently and effectively

1 operated under the proposed unit plan of development?

2 A. I believe so.

3 Q. You believe these formations can be
4 effectively developed with the proposed cooperative
5 waterflood?

6 A. Yes.

7 Q. And these, in fact, are the same formations
8 that were involved in the Meridian or Southland flood
9 off to the east?

10 A. In the Queen-Grayburg, yes.

11 Q. Were Exhibits 7 through 13 prepared by you?

12 A. Yes, they were.

13 MR. CARR: At this time, Mr. Stogner, we
14 would move the admission of Hanson Exhibits 7 through
15 13.

16 EXAMINER STOGNER: Exhibits 7 through 13
17 will be admitted into evidence.

18 MR. CARR: That concludes my direct
19 examination of Mr. Fitzsimmons.

20 EXAMINATION

21 BY EXAMINER STOGNER:

22 Q. Mr. Fitzsimmons, when I look at your B-B'
23 prime cross-section down in the third Grayburg sand as
24 you're designating, I show a color variation. What
25 are you trying to indicate at this point?

1 A. This color variation, I'm using green to
2 represent oil production. I'm using blue to represent
3 water. If you refer to the structure map, you'll see
4 that the right portion of the cross-section was in a
5 downdip location, and we have never established
6 economic production out of those zones.

7 Q. Well, are you saying that's watered down or
8 --

9 A. I'm just saying that there's probably an
10 oil-water contact between the two wells, and that's
11 what the transition represents.

12 Q. But you're not trying to pinpoint where
13 that oil-water contact is?

14 A. No. I can just only approximate it.

15 Q. Is it your understanding the waterfloods or
16 the wells which will be utilized, are they going to be
17 specifically perforated to allow injection into these
18 three small intervals that you're talking about, or do
19 you visualize an overall open hole, multiple
20 perforation that extends beyond the little orange and
21 the green markings on your cross-section?

22 A. Initially, it's our intention to be very
23 specific on where we perforate because we want to have
24 control over the response so we can properly assess
25 the success of the flood.

1 Q. With that, let's look at the matrix between
2 the third Penrose sand and the third Grayburg sand.
3 What do I find in there?

4 A. You're referring to lithologies?

5 Q. Yes, please.

6 A. It's primarily carbonates with some sand
7 stringer, too, out. We think that there's adequate
8 separation between the two zones that we won't have
9 any communication. And our experience in producing
10 the field, we have had additional perforations
11 throughout those zones. And we found that as we add
12 zones, we didn't have significant increase in
13 production, and we feel that there's just no
14 communication between the two zones.

15 Q. Do I actually see a sand lens or a
16 different porosity in your three proposal intervals,
17 or what kind of a -- in your opinion, what kind of a
18 permeability factor do I have between those what I
19 assume to be porosity zones?

20 A. Well, that is very difficult for me to
21 determine, not having adequate logs and only being
22 dependent on production, and, in many cases, with
23 multiple zones being perforated through time, I have
24 no way of backing out the actual permeabilities.

25 Q. Let's refer back to those logs that you

1 were discussing. What type of whole logs are you
2 referring to? What do we see?

3 A. Generally, they were old neutron logs.

4 Q. Ran back in what era?

5 A. That is a late '50's, early '60's field.

6 Q. And that's when these logs were performed?

7 A. Um-hm, except for the Ute Federal No. 1 and
8 the Pueblo which were recent logs, but the Ute was
9 essentially wet, and the Pueblo -- or the Ute, we
10 never established production, and the Pueblo has been
11 a very poor producer. So I don't think that they will
12 represent for any of the zones that we plan to flood.

13 Q. Where did you obtain records or copies of
14 these old logs?

15 A. Hanson Operating established -- drilled the
16 initial wells. So they're in our well files, and the
17 other wells I picked up at the Permian Association and
18 researching in the OCD in Artesia.

19 Q. Have you been in communication or contact
20 with our geologist in the Artesia District Office, Mr.
21 Mark Ashley?

22 A. No, I haven't.

23 EXAMINER STOGNER: I have no other
24 questions of this witness at this time, Mr. Carr.

25 MR. STOVALL: I do have one, Mr. Examiner.

EXAMINATION

1
2 BY MR. STOVALL:

3 Q. You indicated, as far as geologically
4 speaking, the Seven Rivers and the Queen Grayburg are
5 really separate, in a separate reservoir from the --

6 A. They're a separate formation. Actually,
7 each formation has a series of separate reservoirs
8 within it, too.

9 Q. Right. This may be getting into the
10 engineer's area, but is there some efficiency to be
11 gained also in addition to the fact that they happen
12 to be in the same pool under OCD nomenclatures, is
13 there efficiency to be gained by operating this as a
14 single unit?

15 A. I think Ray is going to answer those
16 questions because he's in charge of -- oversees the
17 operations and how they will develop.

18 Q. When you did the -- figured the unit
19 participation, I assume that each area got credit for
20 what it had in it?

21 A. Yes, it did. Participation was determined
22 by the Williamson report and accepted by all
23 participants.

24 MR. STOVALL: That's all I have.

25 EXAMINER STOGNER: I have no other

1 questions of Mr. Fitzsimmons.

2 Mr. Carr?

3 RAY WILLIS,

4 the witness herein, after having been first duly sworn
5 upon his oath, was examined and testified as follows:

6 EXAMINATION

7 BY MR. CARR:

8 Q. Would you state your name for the record,
9 please.

10 A. Ray Willis.

11 Q. By whom are you employed?

12 A. Hanson Operating Company.

13 Q. In what capacity?

14 A. Vice-president.

15 Q. What are your responsibilities as
16 Vice-president of Hanson?

17 A. I'm responsible for the supervision
18 involving the engineering work and the overall
19 operation of the company.

20 Q. Do you also in that position -- are you in
21 charge of retaining and working with outside
22 consulting services?

23 A. Yes, I do.

24 Q. Have you previously testified before this
25 Division?

1 A. I have.

2 Q. How long have you been employed by Hanson?

3 A. Thirty-seven years.

4 Q. Are you a member of any professional
5 associations?

6 A. I'm an associate member of the American
7 Association of Petroleum Geologists, and I'm a member
8 of the Society of Petroleum Engineers.

9 Q. Are you familiar with the application filed
10 in this case?

11 A. Yes, I am.

12 Q. In each of the cases?

13 A. Yes, I am.

14 Q. Can you explain how it was that you and
15 Yates decided to have a joint engineering study made
16 of this area?

17 A. This was an area that had been jointly
18 operated by Hanson and Yates from day one. We have
19 reached a time when production is very marginal. We
20 have been in contact with Yates over the last five
21 years regarding a flood. The last three years has
22 been intensive. We got together with Theresa Sloan,
23 David Benoit, decided to hire an outside consultant
24 firm. Our in-house engineering departments on both
25 companies decided it was a very good prospect, and we

1 should go forward with it.

2 Q. Was the study and the work done developing
3 this prospect done at your request and under your
4 supervision?

5 A. Yes, it was.

6 Q. Were you responsible for providing raw data
7 and information to Williamson to support the study?

8 A. I did.

9 MR. CARR: Are the witness's qualifications
10 acceptable?

11 EXAMINER STOGNER: They are.

12 Q. (BY MR. CARR) Are you familiar with the
13 New Mexico Statutory Unitization Act?

14 A. Yes, somewhat.

15 Q. Have you prepared certain exhibits for
16 presentation in this case?

17 A. I have.

18 Q. Let's just identify what has been marked as
19 Hanson Operating Company Exhibit No. 14.

20 A. This is the feasibility study for a
21 proposed waterflood in the Shugart Field, Eddy County,
22 New Mexico.

23 Q. Is this the study that Williamson prepared
24 for you and Yates?

25 A. That is correct.

1 Q. Let's move to Exhibit 15, and I'd ask you
2 to identify this and review it for the examiner.

3 A. Exhibit 15 is a well status map. It shows
4 the outline of the unit that we are proposing. It
5 shows our waterflood station, the producing wells, and
6 it shows proposed water injection wells, which will be
7 the No. 17 Ute Federal, Pueblo Federal, and three
8 additional wells to be drilled.

9 Q. What does Hanson estimate to be the capital
10 cost of these additional facilities that are going to
11 be required for this project?

12 A. We anticipate \$1-1/2 million.

13 Q. What do you estimate the total project cost
14 actually to be?

15 A. \$2-1/2 million.

16 Q. If this is a successful flood, how much
17 additional oil production do you expect to obtain from
18 the project?

19 A. We can expect -- we expect to recover one
20 and a half million barrels of oil.

21 Q. Do you have a unit performance curve that
22 is included within the Williamson study?

23 A. Yes, it is. There is a performance curve
24 just in front of the tab listed as Tables. It is a
25 performance curve prepared by Williamson &

1 Associates. It indicates within one and a half to two
2 years, we would be producing approximately 500 barrels
3 of oil per day and then tailing off to economic limits
4 over about 14 years.

5 Q. This graph would also include the Yates
6 tract production forecast, would it not?

7 A. That is correct.

8 Q. About how much of the production that is
9 depicted on that graph would be attributed to the
10 Yates lease?

11 A. 29 percent.

12 Q. What would be the value of the estimated
13 total value of the additional production that you hope
14 to obtain from this waterflood?

15 A. We hope that it will have a value of \$30
16 million.

17 Q. And in setting this figure, what price for
18 the oil did you utilize?

19 A. We used \$20 per barrel for the life of the
20 project.

21 Q. Did you factor anything in for gas
22 production from the unit?

23 A. We don't think gas will be a significant
24 factor in these calculations. We will be producing so
25 much water, the oil is coming back. Most of the gas

1 which is produced will be used on lease for lease
2 purposes and treating oil, etc.

3 Q. If Hanson and the other interest owners in
4 the unit area are required to advance costs for a
5 party who has not voluntarily committed to this
6 project, do you believe it is appropriate for the 200
7 percent risk penalty set forth in the unit documents
8 to apply to that interest?

9 A. Yes, I do.

10 Q. If the current unsigned tracts, and here
11 I'm talking primarily about the Hilo interest, if it
12 isn't voluntarily contributed to the unit plan, what
13 impact would it have on the project?

14 A. It would have a big impact on the project
15 if it was removed. We think that is a good recovery
16 well on -- two of the wells would be good for
17 recovery. And if not unitized, we think the unit
18 would fail.

19 Q. Is unitized management necessary, in your
20 opinion, to effectively recover the oil in the unit
21 area?

22 A. Yes, it is.

23 Q. And do you believe that the waterflood
24 which you're proposing based on your engineering and
25 geological studies of this area, would the waterflood

1 be a feasible project?

2 A. Yes.

3 Q. What generally is the basis for the
4 participation formula in the Unit Agreement?

5 A. We based it on primary production. The
6 allocations went back to each individual well and each
7 individual well's percentage of production as to the
8 whole unit.

9 Q. Could you review for the examiner what has
10 been marked Hanson Exhibit No. 16?

11 A. No. 16 is a participation formula that we
12 have prepared that lists the wells operated by
13 Hanson. There are some wells at the time this was
14 prepared operated by Siete Oil & Gas Corp. that is now
15 operated by Hanson. We had the Yates Petroleum wells
16 in the overall picture. This came from the Williamson
17 report.

18 We remove the Yates wells from it, run the
19 factors up to 100 percent, and then the next table
20 down there has the conversion of the tract group as to
21 participation factors as is today.

22 Q. Does this allocation formula, in your
23 opinion, allocate production to the separately owned
24 tracts in the proposed unit on a fair, reasonable, and
25 equitable basis?

1 A. Yes, it does.

2 Q. Does Hanson seek authority from the
3 Division to commit additional wells to injection by
4 administrative procedures?

5 A. Yes, we do.

6 Q. Avoiding the necessity of further hearing?

7 A. Yes.

8 Q. In fact, you've already discussed an
9 additional well with Yates, and that is in the at
10 least discussion stage; is that not correct?

11 A. That's correct.

12 Q. Whereabouts would that well be located?

13 A. Somewhere in the northeast of Section 25.
14 We have not come to a firm conclusion as to the exact
15 location of it, but it would be somewhere between
16 wells No. 3 and 4, Ginsberg, on Hanson's acreage, and
17 wells No. 3 and 8 on Yates Creek AL acreage.

18 Q. And if you start seeing a response to your
19 injection, then that would be a possible additional
20 injection well?

21 A. That is a possible addition. We would
22 prefer to wait until such time as we see results from
23 the injection on our part and Yates part to conclude
24 those negotiations.

25 Q. In your opinion, will granting this

1 application for statutory unitization be in the best
2 interest of conservation, the prevention of waste, and
3 the protection of correlative rights?

4 A. Yes, it will.

5 Q. Could you now refer to what has been marked
6 as Hanson Exhibit No. 17 and identify that, please.

7 A. That is a completed Form C-108 with
8 attachments.

9 Q. And this is a new project, not an expansion
10 of an existing project; correct?

11 A. That is correct.

12 Q. Could you refer to pages 13 through 18 of
13 this exhibit and just identify for the examiner what
14 those are.

15 A. Those are proposed injection wells, which
16 13 is Pueblo Federal, 14 is Ute Federal. These two
17 wells are in existence. They are newly drilled
18 wells. The Ginsberg Federal 17 is to be a new drilled
19 well. Page 16 is Ginsberg Federal No. 18. And page
20 17 is Ginsberg Federal No. 19.

21 Q. What is shown on page --

22 A. Page 18 is the Keinath Federal proposed
23 injection well.

24 Q. On each of these plats, have you drawn a
25 circle with a half-mile radius to show the area of

1 review for each of the proposed injection wells?

2 A. That is correct.

3 Q. What is shown on pages 19 through 25 of
4 this exhibit?

5 A. That's tabular data on all the wells within
6 the area of review which penetrate the injection zone.

7 Q. And this sets forth the information
8 required by OCD Form C-108?

9 A. That is correct.

10 Q. Would you identify for the examiner what is
11 contained on pages 26 through 29 of this exhibit?

12 A. That is a wellbore sketch showing the size,
13 location of all plugs on plugged wells, showing the
14 casing strings that have been left in the well.

15 Q. Do you have a separate schematic for each
16 plugged and abandoned well within any of the areas of
17 review for any injection well?

18 A. That is correct.

19 Q. In your opinion, are the wells
20 satisfactorily plugged to assure that these wellbores
21 do not become a vehicle for the migration of injected
22 water?

23 A. Yes, it is.

24 Q. On pages 6 through 11 of this exhibit
25 there's some schematic drawings. Could you identify

1 those, please.

2 A. Six through 11 is proposed injection wells,
3 showing the present and proposed completions.

4 Q. That's for each injection well?

5 A. For each injection well, that's correct.

6 Q. And the injection intervals have been
7 defined previously by Mr. Fitzsimmons; is that
8 correct?

9 A. That's correct.

10 Q. What is the source of the water you propose
11 to inject in this project?

12 A. It will be water from the Penrose-Middle
13 Grayburg-Seven Rivers from water supply wells
14 identified on page 3, paragraph 4, of Exhibit 17.

15 Q. So basically you're going to be reinjecting
16 water into the producing formations?

17 A. That is correct, and we will use produced
18 water as the wells produce the water back, also.

19 Q. Do you intend to use fresh water as make-up
20 water?

21 A. No.

22 Q. What volumes are you proposing to inject?

23 A. We propose on an initial injection rate of
24 600 barrels of water per day for the Middle Grayburg,
25 Penrose injectors. For the Seven Rivers, we propose

1 100 to 250 barrels of water per day per well.

2 Q. So we've got different volumes per
3 interval, and these are figures per injection well?

4 A. That's correct.

5 Q. What would be the maximum daily rate you
6 would anticipate?

7 A. The Penrose-Middle Grayburg we anticipate
8 1000 barrels of water per day maximum. For the Seven
9 Rivers, 300 barrels per day.

10 Q. These would be per well figures again?

11 A. That's correct.

12 Q. Is this going to be a closed system?

13 A. It will be a closed system.

14 Q. Do you anticipate injection by gravity or
15 under pressure?

16 A. It will be under pressure.

17 Q. What is the maximum injection pressure you
18 propose to utilize?

19 A. Our maximum of 2,000 pounds per square inch
20 per each zone.

21 Q. Would this exceed a pressure limitation of
22 .2 pounds per foot of depth to the top?

23 A. Yes, it would.

24 Q. Would you recommend that higher pressures
25 be established after Division witness separate tests

1 on each of the zones in which you plan to increase
2 pressure over that .2 pound pressure limit?

3 A. Yes, I would.

4 Q. Could you identify pages 30 through 45 of
5 Exhibit 17?

6 A. Those are water analysis on the injection
7 fluid that we have taken from various wells in the
8 area.

9 Q. Are there fresh water zones in this area?

10 A. Yes, there are fresh water zones in the
11 area. However, it's only occasional water that will
12 be found in the Red Beds at about -- at less than 275
13 feet based on data from the State Engineer's Office.

14 Q. Are there any fresh water wells within one
15 mile of any of these proposed injection wells?

16 A. Yes, there is. There is one well situated
17 in the southeast quarter, northwest quarter, southeast
18 quarter of Section 26, Township 18 South, Range 30
19 East, which is known as the Snyder Ranch well shown on
20 the plat on page 46.

21 Q. And from what interval is it producing?

22 A. It's producing from the Red Beds at less
23 than 275 feet.

24 Q. On page 47 of Exhibit No. 17, is there a
25 water analysis of the water from this Snyder Ranch

1 well?

2 A. Yes, there is.

3 Q. Are the logs of existing wells in the unit
4 area which are going to be converted to injection on
5 file with this Division?

6 A. Yes.

7 Q. And, Mr. Willis, have you examined the
8 available engineering and geologic data on the area
9 involved in this application?

10 A. Yes, I have.

11 Q. As a result of that examination, have you
12 found any evidence of open faults or other hydrologic
13 connections between the injection interval and any
14 underground source of drinking water?

15 A. I have found none.

16 Q. In your opinion, will granting of this
17 application be in the best interest of conservation,
18 the prevention of waste, the protection of correlative
19 rights?

20 A. Yes, it would.

21 Q. What is Hanson's anticipated date for the
22 commencement of injection?

23 A. Sixty to 90 days from date of approval by
24 the Commission.

25 Q. If this application is approved, you would

1 expect to increase the amount of crude oil ultimately
2 recovered from the reservoir, would you not?

3 A. Yes, sir.

4 Q. Has this project area been depleted to such
5 an extent that it is now appropriate to apply the
6 enhanced recovery techniques that you are proposing
7 here today?

8 A. Yes, it is. These wells are down to less
9 than 2-1/2 barrels per day per well and less than 1
10 Mcf of gas in daily production for the average of the
11 wells.

12 Q. Based on your experience in the area, is
13 the proposed project both economically and technically
14 feasible?

15 A. Yes, it is.

16 Q. This application is not being prematurely
17 filed, is it?

18 A. We're late in the life of the reservoir.

19 Q. Do you believe that if you were to
20 effectively waterflood this unit, that it is
21 appropriate that this program be implemented as soon
22 as possible?

23 A. Yes, I do.

24 Q. Were Exhibits 14 through 17 either prepared
25 by you or compiled under your direction?

1 A. Yes, they were.

2 MR. CARR: At this time, Mr. Stogner, we
3 would move the admission of Hanson Operating Company's
4 Exhibits 14 through 17.

5 EXAMINER STOGNER: Exhibits 14 through 17
6 will be admitted into evidence.

7 MR. CARR: That concludes my direct
8 examination of Mr. Willis.

9 EXAMINATION

10 BY EXAMINER STOGNER:

11 Q. Mr. Willis, in looking at your C-108,
12 Exhibit 17, your list of all wells within a half-mile
13 radius, I assume that's what this is; correct?

14 A. Yes.

15 Q. What is the topmost perforation that you
16 anticipate to be injecting here?

17 A. The topmost perforation?

18 Q. In any of the wells or on average?

19 A. It would be -- let me look through here and
20 get it. 2469.

21 Q. Do you anticipate it to vary much between
22 injection wells?

23 A. Not too much. 2469 to 2487, for the most
24 part on the Seven Rivers. Penrose will be in the 3100
25 range. Middle Grayburg 3390, 3460.

1 Q. In looking through this listing of wells, I
2 see some that really blatantly stand out and some that
3 are somewhat questionable as far as the top of cements
4 on the production casing. One in particular on page
5 25, the Creek AL No. 11, I show top of cement at
6 3252. Is it my understanding that injection interval
7 is not cemented throughout that particular well?

8 A. Creek AL 11 is in an area that we do not
9 believe the water from the Seven Rivers will encroach
10 upon. However, we would be most happy to work with
11 the Oil Commission to ascertain that it does not.

12 Q. And if there are some others in there
13 subsequent to the hearing today that this Division
14 feels should be checked out in the method in which you
15 suggested, working with our Artesia District Office,
16 to either substantiate that the adequate cement is
17 across there or perhaps the injection water is not a
18 danger?

19 A. Yes, we definitely will.

20 EXAMINATION

21 BY MR. STOVALL:

22 Q. You heard the question I asked your
23 geologist, I've forgotten his name, regarding the
24 operation of this as a single unit and the efficiency
25 of it?

1 A. It would be much more efficient to operate
2 as a single unit. We'll have a single plant for
3 operations, and it will be much more efficient handled
4 in that manner.

5 Q. And you are requesting certification as a
6 secondary recovery unit for EOR tax credit purposes
7 under state law; is that correct?

8 A. That is correct.

9 Q. Are you familiar with that process?

10 A. Not 100 percent. I have went through some
11 of it.

12 Q. I think the critical part, the part that
13 you need to be concerned with, this is a new project,
14 so you won't have a problem with that part of the
15 qualification. As a secondary project, you have a
16 five-year period from the date that we certify it as
17 an EOR project to obtain a positive production
18 response.

19 Your testimony was, you anticipate getting
20 this project up and running and actually start
21 injection within 90 days of approval?

22 A. Immediately.

23 Q. And looking at, what is it, the Williamson
24 study, it looks like you anticipate getting a response
25 within, oh, two to three years at the most; is that

1 correct?

2 A. We think that would be the outside that we
3 will get good response. I think, personally, we will
4 see it much quicker than that.

5 Q. Sometimes in the case of waterfloods, we'll
6 not issue the certification until the operator is
7 ready to commence injection. It sounds to me in this
8 case -- the reason for that is to simply make sure
9 you've got five years of real injection to get the
10 response. It sounds to me in this case like we can go
11 ahead and issue the certificate about the time we
12 issue the order, and that that time is not going to be
13 a critical factor in the operation of this flood; is
14 that correct?

15 A. No, that will not be a critical factor. We
16 are ready to proceed. We are in the waiting time.
17 The applications are filed for the drilling of
18 additional wells. We're ready to go.

19 Q. Do you also understand that in getting the
20 positive production response, you not only have to get
21 the response, but you have to apply to us for a
22 certification of that response within the five-year
23 time period?

24 A. Yes.

25 Q. And I am assuming you're considering the

1 entire unit area as the project area for the purpose
2 of this waterflood?

3 A. Yes, we are.

4 Q. So that should be the area that's
5 certified?

6 A. That's correct.

7 Q. I advise you that at the time that you get
8 a positive production response, that we will look at
9 the area that is actually responding, and that that
10 area may be reduced for purposes of a tax credit.
11 Even though maybe you will be allowed to continue to
12 operate in that area, our certification of the entire
13 area as a project does not assure that that will be
14 certified as the area entitled to the tax credit based
15 upon the filing of your production response?

16 A. I understand.

17 Q. Did that make sense?

18 A. Yes, it did.

19 MR. STOVALL: Oh, good. Nothing further.

20 FURTHER EXAMINATION

21 BY MR. STOGNER:

22 Q. In referring to your Exhibit No. 15, that's
23 the plat showing the injection wells, there are three
24 conversions, if I read your application right. That's
25 the Ute Federal 1, Pueblo Federal 1, and the No. 17

1 Ginsberg; is that correct?

2 A. Those are existing wells, yes.

3 Q. Again, are those fairly new drills?

4 A. The Ute and Pueblo were drilled within the
5 last three years. The No. 17 I would guess six years
6 old, off the top of my head. We will run integrity
7 tests on all of those, ascertain that we are in
8 complete compliance with all the OCD regulations,
9 federal regulations, prior to any injection of water.

10 Q. But you do have some older wells out there
11 but not plans for conversion; is that correct?

12 A. That's correct.

13 Q. So with the oldest one being six years old,
14 the steel is probably in better shape out there than
15 most wells?

16 A. We think it will be very efficient.

17 Q. And the tubing is to be 2-3/8's plastic
18 coated?

19 A. Yes.

20 Q. No fresh water, is that correct, no fresh
21 water to be utilized?

22 A. We do not intend to use fresh water, that
23 is correct.

24 Q. What will the source water again be?

25 A. The source water will come from two or

1 three existing wells.

2 Q. When you say existing wells, what
3 production are they from?

4 A. Seven Rivers-Queen-Grayburg wells that have
5 watered out, making an extreme amount of water, on
6 page 3, paragraph 4 of 17. The Lanning Federal No. 4,
7 shut in, and the Lanning Federal No. 3 are shut in.

8 Q. Three and 4, Lanning?

9 A. That is correct.

10 Q. And that's in Section 25, aren't they?

11 A. Correct.

12 Q. Both -- it appears to be -- and they show
13 up on your Exhibit No. 15. I show them to be in the
14 east half of the southeast quarter; is that correct?

15 A. That is correct.

16 Q. Those are your source water wells?

17 A. That's where we're at at this stage. We
18 have another well that has good possibilities. In the
19 event those two do not produce enough water, our No.
20 16 Ginsberg, which is situated in the southwest of the
21 southeast of 25, that well flowed tremendous amounts
22 of brown water when we drilled it, and we could use
23 it, if it's necessary. However, in initial stage, we
24 prefer to use that as a recovery well.

25 Q. One last item on your calculations used to

1 show your top of cement on the wells within a half-
2 mile radius, is that formula that you utilized
3 included in the packet of exhibits today?

4 A. The --

5 Q. In your completion information, you show
6 the top of cement behind the production strings in
7 several instances, and that was performed by
8 calculation. Were those your calculations?

9 A. Yes, they were our calculations.

10 Q. Is that formula that you utilized in
11 calculating those tops included in here, in the packet
12 today?

13 A. I don't think there's a formula included.

14 MR. CARR: Mr. Stogner, I think we could
15 supply it. I've looked at the exhibit as well. I
16 don't believe the formula is set out there.

17 EXAMINER STOGNER: That's what I'm getting
18 it. If it's not included, if you could provide me
19 that calculation method, I would appreciate it.

20 I don't have anything further at this
21 time.

22 Any other questions of Mr. Willis?

23 MR. CARR: No further questions.

24 EXAMINER STOGNER: He may be excused.

25 Any other questions of Mr. Hammonds, Mr.

1 Fitzsimmons?

2 MR. CARR: No further questions.

3 EXAMINER STOGNER: Nothing here.

4 Do you have anything further, Mr. Carr?

5 MR. CARR: Nothing further, Mr. Examiner.

6 EXAMINER STOGNER: Does anybody else have
7 anything further in consolidated cases Nos. 10685 and
8 10686? If not, then these cases will be taken under
9 advisement.

10 Let's take a 20 minute recess.

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I do hereby certify that the foregoing is
a complete record of the proceedings in
the Examiner hearing of Case Nos. 10685 & 10686
heard by me on 11/18/93 1993.
Michael Stogner, Examiner
Oil Conservation Division

CERTIFICATE OF REPORTER

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STATE OF NEW MEXICO)

) ss.

COUNTY OF SANTA FE)

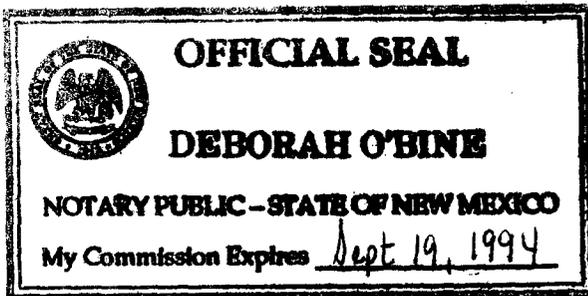
I, Deborah O'Bine, Certified Shorthand Reporter and Notary Public, HEREBY CERTIFY that I caused my notes to be transcribed under my personal supervision, and that the foregoing transcript is a true and accurate record of the proceedings of said hearing.

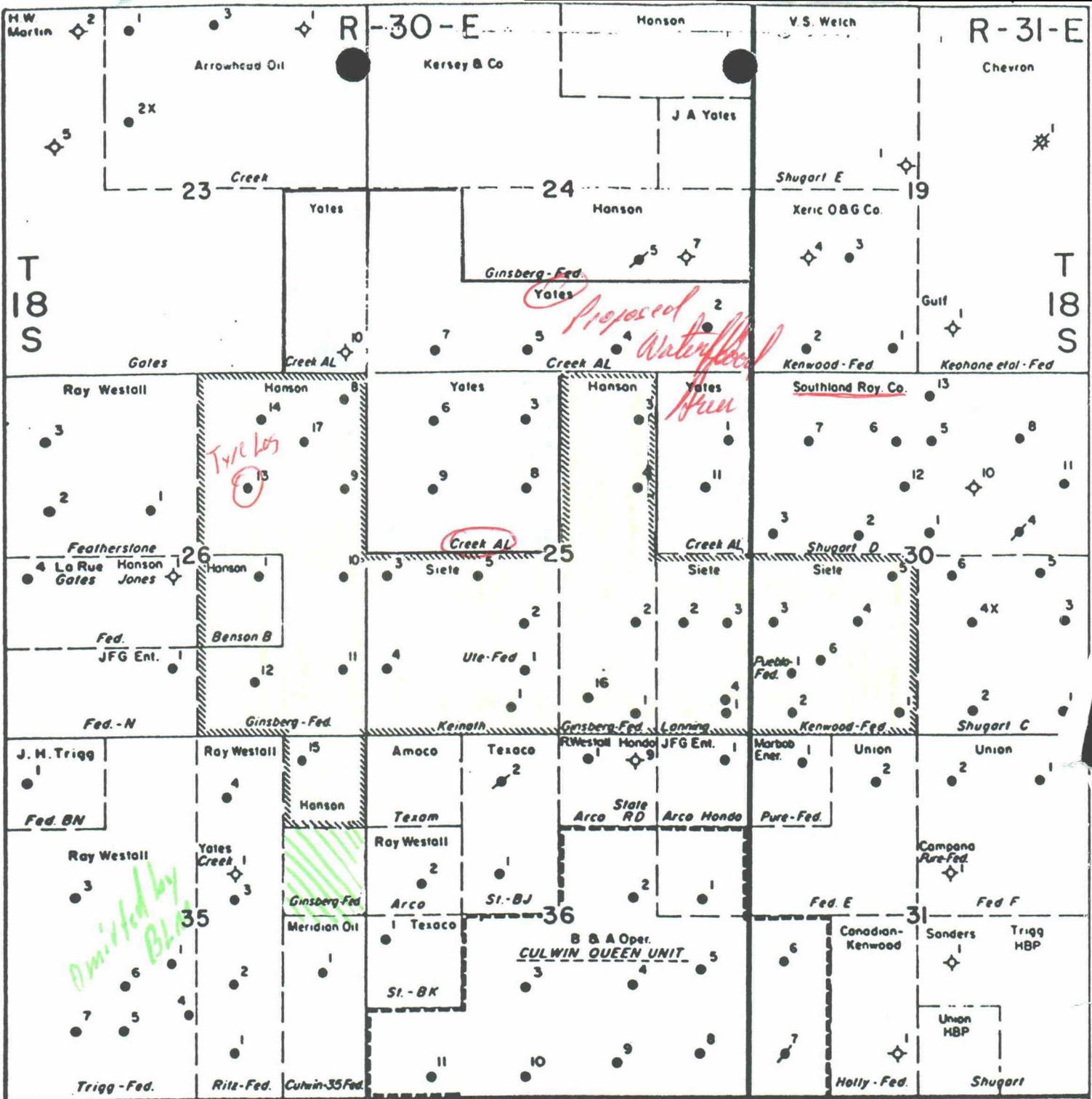
I FURTHER CERTIFY that I am not a relative or employee of any of the parties or attorneys involved in this matter and that I have no personal interest in the final disposition of this matter.

WITNESS MY HAND AND SEAL, March 30, 1993.

Deborah O'Bine

DEBORAH O'BINE
CCR No. 63





PROPOSED WATERFLOOD UNIT BOUNDARY

BEFORE EXAMINER STOGNER
 OIL CONSERVATION DIVISION
Hanson EXHIBIT NO. 1
 CASE NO. 10685 and 10686



HANSON OPERATING

UNIT AREA PLAT

HANSON-SIETE-YATES
 PROPOSED WATERFLOOD UNIT
 SHUGART FIELD
 EDDY COUNTY, NEW MEXICO

FIGURE II

UNIT AGREEMENT

FOR THE DEVELOPMENT AND OPERATION
OF THE
BENSON SHUGART WATERFLOOD UNIT
EDDY COUNTY, NEW MEXICO

NO. _____

UNIT AGREEMENT
BENSON SHUGART WATERFLOOD UNIT
EDDY COUNTY, NEW MEXICO
Hanson 2
10685 and 10686

UNIT AGREEMENT
FOR THE DEVELOPMENT AND OPERATION
OF THE
BENSON SHUGART WATERFLOOD UNIT
EDDY COUNTY, NEW MEXICO

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UNIT AGREEMENT
FOR THE DEVELOPMENT AND OPERATION
OF THE
BENSON SHUGART WATERFLOOD UNIT
EDDY COUNTY, NEW MEXICO

THIS AGREEMENT, entered into as of the _____ day of _____, 199____, by and between the parties subscribing, ratifying, or consenting hereto, and herein referred to as the "parties hereto,"

WITNESSETH:

WHEREAS, the parties hereto are the owners of working, royalty or other oil and gas interests in the Unit Area subject to this Agreement; and

WHEREAS, the Mineral Leasing Act of February 25, 1920, 41 Stat. 437, as amended, 30 U.S.C. Sec. 181 et seq., authorizes Federal lessees and their representatives to unite with each other, or jointly or separately with others, in collectively adopting and operating a cooperative or unit plan of development or operation of any oil or gas pool, field, or like area, or any part thereof for the purpose of more properly conserving the natural resources thereof whenever determined and certified by the Secretary of the Interior to be necessary or advisable in the public interest; and

WHEREAS, the Commissioner of Public Lands of the State of New Mexico is authorized by an Act of the Legislature (Section 1, Chapter 88, Laws 1943, as amended by Section 1 of Chapter 176, Laws of 1961) (Chapter 19, Article 10, Section 45, New Mexico Statutes 1978 Annotated), to consent to and approve the development or operation of State lands under agreements made by lessees of State land jointly or severally with other lessees where such agreements provide for the unit operation or development or part of or all of any oil or gas pool, field or area; and

WHEREAS, the Commissioner of Public Lands of the State of New Mexico authorized by an Act of the Legislature (Section 1, Chapter 88, Laws 1943, as amended by Section 1, Chapter 162, Laws of 1951) (Chapter 19, Article 10, Section 47, New Mexico Statutes 1978 Annotated) to amend with the approval of lessee, evidenced by the lessee's execution of such agreement or otherwise, any oil and gas lease embracing State lands so that the length of the term of said lease may coincide with the term of such agreements for the unit operation and development of part or all of any oil or gas pool, field or area; and

WHEREAS, the Oil Conservation Division of the State of New Mexico (hereinafter referred to as the "Division") is authorized by an Act of the Legislature (Chapter 72, Laws of 1935 as amended) (Chapter 70, Article 2, Section 2 et seq., New Mexico Statutes 1978 Annotated) to approve this Agreement and the conservation provisions hereof; and

WHEREAS, the Oil Conservation Division of the Energy and Minerals Department of the State of New Mexico is authorized by law (Chapter 65, Article 3 and Article 14, N.M.S. 1953 Annotated) to approve this Agreement and the conservation provisions hereof; and

WHEREAS, the parties hereto hold sufficient interest in the Unit Area covering the land hereinafter described to give reasonably effective control of operations therein; and

WHEREAS, it is the purpose of the parties hereto to conserve natural resources, prevent waste, and secure other benefits obtainable through development and operation of the area subject to this Agreement under the terms, conditions, and limitations herein set forth;

NOW THEREFORE, in consideration of the premises and the promises herein contained, the parties hereto commit to this Agreement their respective interest in the below-defined Unit Area, and agree severally among themselves as follows:

SECTION 1. ENABLING ACT AND REGULATIONS. The Mineral Leasing Act of February 25, 1920, as amended, supra, and all valid pertinent regulations, including operation and unit plan regulations, heretofore issued thereunder or valid, pertinent, and reasonable regulations hereafter issued thereunder are accepted and made a part of this Agreement as to Federal lands, provided such regulations are not inconsistent with the terms of this Agreement; and as to non-Federal lands, the oil and gas operating regulations in effect as of the Effective Date hereof governing drilling and producing operations, not inconsistent with the terms hereof or the laws of the state in which the non-Federal land is located, are hereby accepted and made a part of this Agreement.

SECTION 2. UNIT AREA AND DEFINITIONS. For the purpose of this Agreement, the following terms and expressions as used herein shall mean;

- (a) "Unit Area" is defined as those lands described in Exhibit B-1 and depicted on Exhibit A hereof, and such land is hereby designated and recognized as constituting the Unit Area, containing 911 acres, more or less, in Eddy County, New Mexico.
- (b) "Division" is defined as the Oil Conservation Division of the Department of Energy and Minerals of the State of New Mexico.
- (c) "Authorized Officer" or "A.O." is any employee of the Bureau of Land Management who has been delegated the required authority to act on behalf of the BLM.
- (d) "Secretary" is defined as the Secretary of the Interior of the United States of America, or his duly authorized delegate.
- (e) "Department" is defined as the Department of the Interior of the United States of America.
- (f) "Proper BLM Office" is defined as the Bureau of Land Management office having jurisdiction over the federal lands in the Unit Area.
- (g) "Unitized Formation" means that subsurface portion of the Unit Area known as the Yates, Seven Rivers, Queen, and Grayburg Formations, commonly known as the Shugart Yates, Seven Rivers, Queen, and Grayburg Oil and Gas Pool which is indicated by the electrical log in the following well at the depth shown:

Operator	Well	Depth
Hanson Operating Company, Inc.	Ginsberg Federal Well #13 located 1650' FNL & 1800' FEL, Section 26, Township 18 South, Range 30 East, NMPM, Eddy County, New Mexico	The correlative interval between 1800 feet and 3500 feet beneath the surface of the ground as found in Compensated Density Log of such well.

The term "Unitized Formation" shall collectively include all the aforesated formations.

- (h) "Unitized Substances" are all oil, gas, gaseous substances, sulphur contained in gas, condensate, distillate and all associated and constituent liquid or liquefiable hydrocarbons, other than outside substances, within and produced from the Unitized Formation.

- (i) "Tract" is each parcel of land described as such and given a Tract number in Exhibit B.
- (j) "Unit Participation" is the sum of the percentages obtained by multiplying the Working Interest of a Working Interest Owner in each Tract by the Tract Participation of such Tract.
- (k) "Working Interest" is the right to search for, produce and acquire Unitized Substances whether held as an incident of ownership of mineral fee simple title, under an oil and gas lease, operating agreement or otherwise held, which interest is chargeable with and obligated to pay or bear, either in cash or out of production, or otherwise, all or a portion of the cost of drilling, developing and producing the Unitized Substances from the Unitized Formation and operations thereof hereunder. (Provided that any royalty interest created out of a working interest subsequent to the execution of this Agreement by the owner of the working interest shall continue to be subject to such working interest burdens and obligations.)
- (l) "Working Interest Owner" is any party hereto owning a Working Interest, including a carried working interest owner, holding an interest in Unitized Substances by virtue of a lease, operating agreement, fee title or otherwise. The owner of oil and gas rights that are free of lease or other instrument creating a working interest in another shall be regarded as a Working Interest Owner to the extent of seven-eighths (7/8) of his interest in Unitized Substances, and as a Royalty Owner with respect to his remaining one-eighth (1/8) interest therein.
- (m) "Royalty Interest" or "Royalty" is an interest other than a Working Interest in or right to receive a portion of the Unitized Substances or the proceeds thereof and includes the royalty interest reserved by the lessor or by an oil and gas lease and any overriding royalty interest, oil payment interest, net profit contracts, or any other payment or burden which does not carry with it the right to search for and produce unitized substances.
- (n) "Royalty Owner" is the owner of a Royalty Interest.
- (o) "Unit Operating Agreement" is the agreement entered into by and between the Unit Operator and the Working Interest Owners as provided in Section 9, *infra*, and shall be styled "Unit Operating Agreement, Benson Shugart Waterflood Unit, Eddy County, New Mexico."
- (p) "Oil and Gas Rights" is the right to explore, develop and operate lands within the Unit Area for the production of Unitized Substances, or to share in the production so obtained or the proceeds thereof.
- (q) "Outside Substances" is any substance obtained from any source other than the Unitized Formation and injected into the Unitized Formation.
- (r) "Unit Manager" is any person or corporation appointed by Working Interest Owners to perform the duties of Unit Operator until the selection and qualification of a successor Unit Operator as provided for in Section 7 hereof.
- (s) "Unit Operator" is the party designated by Working Interest Owners under the Unit Operating Agreement to conduct Unit Operations.
- (t) "Unit Operations" is any operation conducted pursuant to this Agreement and the Unit Operating Agreement.
- (u) "Unit Equipment" is all personal property, lease and well equipment, plants, and other facilities and equipment taken over or otherwise acquired for the joint account for use in Unit Operations.

(v) "Unit Expense" is all cost, expense, or indebtedness incurred by Working Interest Owners or Unit Operator pursuant to this Agreement and the Unit Operating Agreement for or on account of Unit Operations.

(w) "Effective Date" is the date determined in accordance with Section 24, or as redetermined in accordance with Section 39.

SECTION 3. EXHIBITS. The following exhibits are incorporated herein by reference; Exhibit A attached hereto is a map showing the Unit Area and the boundaries and identity of tracts and leases in said Unit Area to the extent known to the Unit Operator, Exhibit B attached hereto is a schedule showing, to the extent known to the Unit Operator, the acreage comprising each Tract, percentages and kind of ownership of oil and gas interests in all land in the Unit Area, and Tract Participation of each Tract. However, nothing herein or in said schedule or map shall be construed as a representation by any party hereto as to the ownership of any interest other than such interest or interests as are shown in said map or schedule as owned by such party. The shapes and descriptions of the respective Tracts have been established by using the best information available. Each Working Interest Owner is responsible for supplying Unit Operator with accurate information relating to each Working Interest Owner's interest. If it subsequently appears that any Tract, because of diverse royalty or working interest ownership on the Effective Date hereof, should be divided into more than one Tract, or when any revision is requested by the A.O., or any correction of any error other than mechanical miscalculations or clerical is needed, then the Unit Operator, with the approval of the Working Interest Owners, may correct the mistake by revising the exhibits to conform to the facts. The revision shall not include any reevaluation of engineering or geological interpretations used in determining Tract Participation. Each such revision of an exhibit made prior to thirty (30) days after the Effective Date shall be effective as of the Effective Date. Each other such revision of an exhibit shall be effective at 7:00 a.m. on the first day of the calendar month next following the filing for record of the revised exhibit or on such other date as may be determined by Working Interest Owners and set forth in the revised exhibit. Not less than four copies of such revision shall be filed with the A.O. In any such revision, there shall be no retroactive allocation or adjustment of Unit Expense or of interests in the Unitized Substances produced, or proceeds thereof.

SECTION 4. EXPANSION. The above described Unit Area may, with the approval of the A.O., when practicable be expanded to include therein any additional Tract or Tracts regarded as reasonably necessary or advisable for the purposes of this Agreement provided, however, in such expansion there shall be no retroactive allocation or adjustment or Unit Expense or of interest in the Unitized Substances produced, or proceeds thereof. Pursuant to Subsection (b), the Working Interest Owners may agree upon an adjustment of investment by reason of the expansion. Such expansion shall be effected in the following manner:

(a) The Working Interest Owner or Owners of a Tract or Tracts desiring to bring such Tract or Tracts into this unit, shall file an application therefor with Unit Operator requesting such admission.

(b) Unit Operator shall circulate a notice of the proposed expansion to each Working Interest Owner in the Unit Area and in the Tract proposed to be included in the unit, setting out the basis for admission, the Tract Participation to be assigned to each Tract in the enlarged Unit Area and other pertinent data. After negotiation (at Working Interest Owners' meeting or otherwise) if at least three Working Interest Owners having in the aggregate seventy-five percent (75%) of the Unit Participation then in effect have agreed to inclusion of such Tract or Tracts in the Unit Area, then Unit Operator shall:

1. After obtaining preliminary concurrence by the A.O., prepare a notice of proposed expansion describing the contemplated changes in the boundaries of the Unit Area, the reason therefor, the basis for admission of the additional Tract or Tracts, the Tract Participation to be assigned thereto and the proposed effective date thereof; and

2. Deliver copies of said notice to the A.O. at the proper BLM office, each Working Interest Owner and to the last known address of each lessee and lessor whose interests are affected, advising such

parties that thirty (30) days will be allowed for submission to the Unit Operator of any objection to such proposed expansion; and

3. File, upon the expiration of said thirty (30) day period as set out in (2) immediately above, with the A.O. the following: (a) evidence of mailing or delivering copies of said notice of expansion; (b) an application for approval of such expansion; (c) an instrument containing the appropriate joinders in compliance with the participation requirements of Section 14, and Section 34, infra; and (d) a copy of all objections received along with the Unit Operator's response thereto.

The expansion shall, after due consideration of all pertinent information and approval by the A.O., become effective as of the date prescribed in the notice thereof, preferably the first day of the month subsequent to the date of notice. The revised Tract Participation of the respective Tracts included within the Unit Area prior to such enlargement shall remain the same ratio one to another.

SECTION 5. UNITIZED LAND. All land committed to this Agreement as to the Unitized Formation shall constitute land referred to herein as "Unitized Land" or "Land subject to this Agreement". Nothing herein shall be construed to unitize, pool, or in any way affect the oil, gas and other minerals contained in or that may be produced from any formation other than the Unitized Formation as defined in Section 2(h) of this Agreement.

SECTION 6. UNIT OPERATOR. Hanson Operating Co., Inc. is hereby designated the Unit Operator, and by signing this instrument as Unit Operator, agrees and consents to accept the duties and obligations of Unit Operator for the operation, development and production of Unitized Substances as herein provided. Whenever reference is made herein to the Unit Operator, such reference means the Unit Operator acting in that capacity and not as an owner of interest in Unitized Substances, when such interest are owned by it and the term "Working Interest Owner" when used herein shall include or refer to the Unit Operator as the owner of a Working Interest when such an interest is owned by it.

Unit Operator shall have a lien upon interests of Working Owners in the Unit Area to the extent provided in the Unit Operating Agreement.

SECTION 7. RESIGNATION OR REMOVAL OF UNIT OPERATOR. Unit Operator shall have the right to resign at any time, but such resignation shall not become effective so as to release Unit Operator from the duties and obligations of Unit Operator and terminate Unit Operator's rights as such for a period of six (6) months after written notice of intention to resign has been given by Unit Operator to all Working Interest Owners and the A.O. unless a new Unit Operator shall have taken over and assumed the duties and obligations of the Unit Operator prior to the expiration of said period.

The Unit Operator shall, upon default or failure in the performance of its duties and obligations hereunder, be subject to removal by Working Interest Owners having in the aggregate eighty percent (80%) or more of the Unit Participation then in effect exclusive of the Working Interest Owner who is the Unit Operator. Such removal shall be effective upon notice thereof to the A.O.

In all such instances of effective resignation or removal, until a successor to Unit Operator is selected and approved as hereinafter provided, the Working Interest Owners shall be jointly responsible for the performance of the duties of the Unit Operator and shall, not later than thirty (30) days before such resignation or removal becomes effective, appoint a Unit Manager to represent them in any action to be taken hereunder.

The resignation or removal of Unit Operator under this Agreement shall not terminate its right, title or interest as the owner of a Working Interest or other interest in Unitized Substances, but upon the resignation or removal of Unit Operator becoming effective, such Unit Operator shall deliver possession of all wells, equipment, books and records, materials, appurtenances and any other assets used in connection with the Unit Operations to the new duly qualified successor Unit Operator or to the Unit Manager if no such new Unit Operator is elected. Nothing herein shall be construed as authorizing the removal of any material, equipment or appurtenances needed for the preservation

of any wells. Nothing herein contained shall be construed to relieve or discharge any Unit Operator or Unit Manager who resigns or is removed hereunder from any liability or duties accruing or performable by it prior to the effective date of such resignation or removal.

SECTION 8. SUCCESSOR UNIT OPERATOR. Whenever the Unit Operator shall tender its resignation as Unit Operator or shall be removed as hereinabove provided, the working Interest Owners shall select a successor Unit Operator as herein provided. Such selection shall not become effective until (a) a Unit Operator so selected shall accept in writing the duties and responsibilities of Unit Operator, and (b) the selection shall have been approved by the A.O. If no successor Unit Operator or Unit Manager is selected and qualified as herein provided, the A.O., at its election, may declare this Agreement terminated.

In selecting a successor Unit Operator, the affirmative vote of three or more Working Interest Owners having a total of sixty-five percent (65%) or more of the total Unit Participation shall prevail; provided that if any one Working Interest Owner has Unit Participation of more than thirty-five percent (35%), its negative vote or failure to vote shall not be regarded as sufficient unless supported by the vote of one or more other Working Interest Owners having a total Unit Participation of at least five percent (5%). If the Unit Operator who is removed votes only to succeed itself or fails to vote, the successor Unit Operator may be selected by the affirmative vote of the owners of at least seventy-five percent (75%) of the Unit Participation remaining after excluding the Unit Participation of Unit Operator so removed.

SECTION 9. ACCOUNTING PROVISIONS AND UNIT OPERATING AGREEMENT. Costs and expenses incurred by Unit Operator in conducting Unit Operations hereunder shall be paid, apportioned among and borne by the Working Interest Owners in accordance with the Unit Operating Agreement. Such Unit Operating Agreement shall also provide the manner in which the working Interest Owners shall be entitled to receive their respective proportionate and allocated share of the benefits accruing hereto in conformity with their underlying operating agreements, leases or other contracts and such other rights and obligations as between Unit Operator and the Working Interest Owners as may be agreed upon by Unit Operator and the Working Interest Owners; however, no such Unit Operating Agreement shall be deemed either to modify any of the terms and conditions of this Agreement or to relieve the Unit Operator of any right or obligation established under this Agreement, and in case of any inconsistency or conflict between this Agreement and the Unit Operating Agreement, this Agreement shall prevail. Copies of any Unit Operating Agreement executed pursuant to this Section shall be filed with the A.O. at the proper BLM office as required prior to approval of this Agreement.

SECTION 10. RIGHTS AND OBLIGATIONS OF UNIT OPERATOR. Except as otherwise specifically provided herein, the exclusive right, privilege and duty of exercising any and all rights of the parties hereto including surface rights which are necessary or convenient for prospecting for, producing, storing, allocating and distributing the Unitized Substances are hereby delegated to and shall be exercised by the Unit Operator as herein provided. Upon request, acceptable evidence of title to said rights shall be deposited with said Unit Operator, and together with this Agreement, shall constitute and define the rights, privileges and obligations of Unit Operator. Nothing herein, however, shall be construed to transfer title to any land or to any lease or operating agreement, it being understood that under this Agreement the Unit Operator, in its capacity as Unit Operator, shall exercise the rights of possession and use vested in the parties hereto only for the purposes herein specified.

SECTION 11. PLAN OF OPERATIONS. It is recognized and agreed by the parties hereto that all of the land subject to this Agreement is reasonably proved to be productive of Unitized Substances and that the object and purpose of this Agreement is to formulate and to put into effect an improved recovery project in order to effect additional recovery of Unitized Substances, prevent waste and conserve natural resources. Unit Operator shall have the right to inject into the Unitized Formation any substances for secondary recovery or enhanced recovery purposes in accordance with a plan of operation approved by the Working Interest Owners, the A.O., and the Division, including the right to drill and maintain injection wells on the Unitized Land and completed in the Unitized Formation, and to use abandoned well or wells producing from the Unitized Formation for said purpose. Subject to like approval, the Plan of Operation may be revised as conditions may warrant.

The initial Plan of Operation shall be filed with the A.O. and the Division concurrently with the filing of the Unit Agreement for final approval. Said initial plan of operations and all revisions thereof shall be as complete and adequate as the A.O. and the Division may determine to be necessary for timely operation consistent herewith. Upon approval of this Agreement and the initial plan by the A.O., said plan, and all subsequently approved plans, shall constitute the operating obligations of the Unit Operator under this Agreement for the period specified therein. Thereafter, from time to time before the expiration of any existing plan, the Unit Operator shall submit for like approval a plan for an additional specified period of operations. After such operations are commenced, reasonable diligence shall be exercised by the Unit Operator in complying with the obligations of the approved Plan of Operation.

Notwithstanding anything to the contrary herein contained, should the Unit Operator fail to commence Unit Operations for the secondary recovery of Unitized Substances from the Unit Area within eighteen (18) months after the effective date of this Agreement, or any extension thereof approved by the A.O., this Agreement shall terminate automatically as of the date of default.

SECTION 12. USE OF SURFACE AND USE OF WATER. The parties to the extent of their rights and interests, hereby grant to Unit Operator the right to use as much of the surface, including the water thereunder, of the Unitized Land as may reasonably be necessary for Unit Operations.

Unit Operator's free use of water or brine or both for Unit Operations, shall not include any water from any well, lake, pond or irrigation ditch of a surface owner, unless approval for such use is granted by the surface owner.

Unit Operator shall pay the surface owner for damages to growing crops, fences, improvements and structures on the Unitized Land that result from Unit Operations, and such payments shall be considered as items of unit expense to be borne by all the Working Interest Owners of lands subject hereto.

SECTION 13. TRACT PARTICIPATION. In Exhibit B attached hereto there are listed and numbered the various Tracts within the Unit Area, and set forth opposite each Tract are figures which represent the Tract Participation, during Unit Operations if all Tracts in the Unit Area qualify as provided herein. The Tract Participation of each Tract as shown in Exhibit B was determined in accordance with the following formula:

Tract Factor = Estimated Secondary Ultimate Recoverable Reserves from wells on each tract divided by estimated secondary ultimate total Recoverable Reserves from Unit Area. Secondary Recoverable Reserves were calculated by Williamson Petroleum Consultants, Inc. on the following groups of wells: (a) Benson #1 Well, (b) Ginsberg #1, 2, 16 Wells, (c) Ginsberg #3-15, 17 Wells, (d) Keinath #1, 2 Wells, (e) Keinath #3-5 Wells, (f) Kenwood #1-6 Wells, (g) Lanning #1-4 Wells, (h) Pueblo Fed #1 Well, (i) Ute Fed #1 Well. In the event a TRACT is composed of a portion but not all of the wells in a group, the Recoverable Reserves were estimated by calculating the cumulative primary reserves recovered through August 31, 1991, dividing such figure by the total primary reserves recovered through such time period by all wells in the group and multiplying such figure by the percentage of Ultimate Secondary Recoverable Reserves for that group of wells pursuant to the Williamson Petroleum Consultants, Inc. Report.

Notwithstanding the foregoing tract factor determination formula, the following parties have agreed, pursuant to Letter Agreement dated January 24, 1992, to the following gross working interest in the present Unit Area: Manzano Oil Corporation to own 10%, Siete Oil & Gas Corporation to own 10%, and the remaining working interest owners shall own the remaining 80% with McBride Oil & Gas Corporation to solely absorb the difference in the increased interest to be owned by Manzano Oil Corporation and Siete Oil & Gas Corporation.

Ultimate Secondary Recoverable Reserves as determined by Williamson Petroleum Consultants, Inc. is on file with Unit Operator.

In the event less than all Tracts are qualified on the Effective Date hereof, the Tract Participation shall be calculated on the basis of all such qualified Tracts rather than all Tracts in the Unit Area.

SECTION 14. TRACTS QUALIFIED FOR PARTICIPATION. On and after the Effective Date hereof, the Tracts within the Unit Area which shall be entitled to participation in the production of Unitized Substances shall be those Tracts more particularly described in Exhibit B that corner or have a common boundary (Tracts separated only by a public road or a railroad right-of-way shall be considered to have a common boundary), and that otherwise qualify as follows:

(a) Each Tract as to which Working Interest Owners owning one hundred percent (100%) of the Working Interest have become parties to this Agreement and as to which Royalty Owners owning seventy-five percent (75%) or more of the Royalty Interest have become parties to this Agreement.

(b) Each Tract as to which Working Interest Owners owning one hundred percent (100%) of the Working Interest have become parties to this Agreement, and as to which Royalty Owners owning less than seventy-five percent (75%) of the Royalty Interest have become parties to this Agreement, and as to which (1) the Working Interest Owner who operates the Tract and Working Interest Owners owning at least seventy-five percent (75%) of the remaining Working Interest in such Tract have joined in a request for the inclusion of such Tract, and as to which (2) Working Unit Participation in all Tracts that meet the requirements of Section 14(a) above have voted in favor of the inclusion of such tract.

(c) Each Tract as to which Working Interest Owners owning less than one hundred percent (100%) of the Working Interest have become parties to this Agreement, regardless of the percentage of Royalty Interest therein that is committed hereto; and as to which (1) the Working Interest Owner who operates the Tract and Working Interest Owner owning at least seventy-five percent (75%) of the remaining Working Interest in such Tract who have become parties to this Agreement have joined in a request for inclusion of such Tract, and have executed and delivered, or obligated themselves to execute and deliver an indemnity agreement indemnifying and agreeing to hold harmless the other owners of committed Working Interests, their successors and assigns, against all claims and demands that may be made by the owners of Working Interest in such Tract who are not parties to this Agreement, and which arise out of the inclusion of the Tract; and as to which (2) Working Interest Owners owning at least seventy-five percent (75%) of the Unit Participation in all Tracts that meet the requirements of Section 14(a) and 14(b) have voted in favor of the inclusion of such Tract and to accept the indemnity agreement. Upon the inclusion of such a Tract, the Tract Participation which would have been attributed to the nonsubscribing owners of Working Interest in such Tract, had they become parties to this Agreement and the Unit Operating Agreement, shall be attributed to the Working Interest Owners in such Tract who have become parties to such agreements, and joined in the indemnity agreement, in proportion to their respective Working Interests in the Tract.

If on the Effective Date of this Agreement, there is any Tract or Tracts which have not been effectively committed to or made subject to this Agreement by qualifying as above provided, then such Tract or Tracts shall not be entitled to participate hereunder. Unit Operator shall, when submitting this Agreement for final approval by the A.O., file therewith a schedule of those tracts which have been committed and made subject to this Agreement and are entitled to participate in Unitized Substances. Said schedule shall set forth opposite each such committed Tract the lease number or assignment number, the owner of record of the lease, and the percentage participation of such tract which shall be computed according to the participation formula set forth in Section 13 (Tract Participation) above. This schedule of participation shall be revised Exhibit B and upon approval thereof by the A.O. shall become a part of this Agreement and shall govern the allocation of production of Unitized Substances until a new schedule is approved by the A.O.

SECTION 15.A. ALLOCATION OF UNITIZED SUBSTANCES. All Unitized Substances produced and saved (less, save and except any part of such Unitized Substances used in conformity with good operating practices on unitized land for drilling, operating, camp and other production or development purposes, and for injection or unavoidable loss in accordance with a Plan of Operation approved by the A.O.) shall be apportioned among and allocated to the qualified Tracts in accordance with the respective Tract Participations effective hereunder during the respective periods such Unitized Substances were produced, as set forth in the schedule of participation in Exhibit B. The amount of Unitized Substances so allocated to each Tract, and only that amount (regardless of whether it be more

or less than the amount of the actual production of Unitized Substances from the well or wells, if any, on such Tract) shall, for all intents, uses and purposes, be deemed to have been produced from such Tract.

No Tract committed to this Agreement and qualified for participation as above provided shall be subsequently excluded from participation hereunder on account of depletion of Unitized Substances.

If the Working Interest and/or the Royalty Interest in any Tract are divided with respect to separate parcels or portions of such Tract and owned now or hereafter in severalty by different persons, the Tract Participation shall in the absence of a recordable instrument executed by all owners in such Tract and furnished to Unit Operator fixing the divisions of ownership, be divided among such parcels or portions in proportion to the Tract Participation set out in Exhibit B.

SECTION 15.B. TAKING UNITIZED SUBSTANCES IN KIND. The Unitized Substances allocated to each Tract shall be delivered in kind to the respective parties entitled thereto by virtue of the ownership of oil and gas rights therein. Each such party shall have the right to construct, maintain and operate all necessary facilities for that purpose within the Unitized Area, provided the same are so constructed, maintained and operated as not to interfere with Unit Operations. Subject to Section 17 hereof, any extra expenditure incurred by Unit Operator by reason of the delivery in kind of any portion of the Unitized Substances shall be borne by the party taking delivery. In the event any Working Interest Owner shall fail to take or otherwise adequately dispose of its proportionate share of the production from the Unitized Formation then so long as such condition continues, Unit Operator, for the account and at the expense of the Working Interest Owner of the Tract or Tracts concerned, and in order to avoid curtailing the operation of the Unit Area, may, but shall not be required to sell or otherwise dispose of such production to itself or to others, provided that all contracts of sale by Unit Operator of any other party's share of Unitized Substances shall be only for such reasonable periods of time as are consistent with the minimum needs of the industry under the circumstances, but in no event shall any such contract be for a period in excess of one year, and at not less than the prevailing market price in the area for like production, and the account of such Working Interest Owner shall be charged therewith as having received such production. The net proceeds, if any, of the Unitized Substances so disposed of by Unit Operator shall be paid to the Working Interest Owner of the Tract or Tracts concerned. Notwithstanding the foregoing, Unit Operator shall not make a sale into interstate commerce of any Working Interest Owner's share of gas production without first giving such Working Interest Owner sixty (60) days' notice of such intended sale.

Any Working Interest Owner receiving in kind or separately disposing of all or any part of the Unitized Substances allocated to any Tract, or receiving the proceeds therefrom if the same is sold or purchased by Unit Operator, shall be responsible for the payment of all royalty, overriding royalty and production payments due thereon, and each such party shall hold each other Working Interest Owner harmless against all claims, demands, and causes of action by owners of such royalty, overriding royalty, and production payments.

If, after the Effective Date of this Agreement, there is any Tract or Tracts that are subsequently committed hereto, as provided in Section 4 (Expansion) hereof, or any Tract or Tracts within the Unit Area not committed hereto as of the Effective Date hereof but which are subsequently committed hereto under the provisions of Section 14 (Tracts Qualified for Participation) and Section 32 (Nonjoinder and Subsequent Joinder); or if any Tract is excluded from this Agreement as provided for in Section 21 (Loss of Title), the schedule of participation as shown in Exhibit B shall be revised by the Unit Operator; and the revised Exhibit B, upon approval by the A.O., shall govern the allocation of production on and after the effective date thereof until a revised schedule is approved as hereinabove provided.

SECTION 16. OUTSIDE SUBSTANCES. If gas obtained from formations not subject to this Agreement is introduced into the Unitized Formation for use in repressuring, stimulating of production or increasing ultimate recovery which shall be in conformity with a Plan of Operation first approved by the A.O., a like amount of gas with appropriate deduction for loss or depletion from any cause may be withdrawn from unit wells completed in the Unitized Formation royalty free as to dry gas, but not royalty free as to the products extracted therefrom; provided that such withdrawal shall be at such time as may be provided in the approved Plan of Operation or as otherwise may

be consented to or prescribed by the A.O. as conforming to good petroleum engineering practices and provided further that such right of withdrawal shall terminate on the termination date of this Agreement.

SECTION 17. ROYALTY SETTLEMENT. The United States of America and all Royalty Owners who, under an existing contract, are entitled to take in kind a share of the substances produced from any Tract unitized hereunder, shall continue to be entitled to such right to take in kind their share of the Unitized Substances allocated to such Tract, and Unit Operator shall make deliveries of such Royalty share taken in kind in conformity with the applicable contracts, laws and regulations. Settlement for Royalty not taken in kind shall be made by Working Interest Owners responsible therefor under existing contracts, laws and regulations on or before the last day of each month for Unitized Substances produced during the preceding calendar month; provided, however, that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any Royalty due under the leases, except that such Royalty shall be computed on Unitized Substances as allocated to each Tract in accordance with the terms of this Agreement. With respect to Federal leases committed hereto on which the royalty rate depends upon the daily average production per well, such average production shall be determined in accordance with the operating regulations pertaining to Federal leases as though the committed Tracts were included in a single consolidated lease.

If the amount of production or the proceeds thereof accruing to any Royalty Owner (except the United States of America) in a Tract depends upon the average production per well or the average pipeline runs per well from such Tract during any period of time, then such production shall be determined from and after the Effective Date hereof by dividing the quantity of Unitized Substances allocated hereunder to such Tract during such period of time by the number of wells located thereon capable of producing Unitized Substances as of the Effective Date hereof, provided that any Tract not having any well so capable of producing Unitized Substances on the Effective Date hereof shall be considered as having one such well for the purpose of this provision.

All Royalty due the United States of America and the other Royalty Owners hereunder shall be computed and paid on the basis of all Unitized Substances allocated to the respective Tract or Tracts committed hereto, in lieu of actual production from such Tract or Tracts.

With the exception of Federal and State requirements to the contrary, Working Interest Owners may use or consume Unitized Substances for Unit Operations and no Royalty, overriding royalty, production or other payments shall be payable on account of Unitized Substances used, lost, or consumed in Unit Operations.

Each Royalty Owner (other than the State of New Mexico and the United States of America) that executes this Agreement represents and warrants that it is the owner of a Royalty Interest in a Tract or Tracts within the Unit Area as its interest appears in Exhibit B attached hereto. If any Royalty Interest in a Tract or Tracts should be lost by title failure or otherwise in whole or in part, during the term of this Agreement, then the Royalty Interest of the party representing himself to be the owner thereof shall be reduced proportionately and the interest of all parties shall be adjusted accordingly.

SECTION 18. RENTAL SETTLEMENT. Rentals or minimum Royalties due on the leases committed hereto shall be paid by Working Interest Owners responsible therefor under existing contracts, laws and regulations provided that nothing herein contained shall operate to relieve the lessees of any land from their respective lease obligations for the payment of any rental or minimum Royalty in lieu thereof, due under their leases. Rental or minimum Royalty for lands of the United States of America subject to this Agreement shall be paid at the rate specified in the respective leases from the United States of America, unless such rental or minimum Royalty is waived, suspended or reduced by law or by approval of the Secretary or his duly authorized representative.

SECTION 19. CONSERVATION. Operations hereunder and production of Unitized Substances shall be conducted to provide for the most economical and efficient recovery of said substances without waste, as defined by or pursuant to Federal and State laws and regulations.

SECTION 20. DRAINAGE. The Unit Operator shall take all reasonable and prudent measures to prevent drainage of Unitized Substances from unitized land by wells on land not subject to this Agreement.

The Unit Operator, upon approval by the Working Interest Owners and the A.O. is hereby empowered to enter into a borderline agreement or agreements with working interest owners of adjoining lands not subject to this Agreement with respect to operation in the border area for the maximum economic recovery, conservation purposes and proper protection of the parties and interest affected.

SECTION 21. LOSS OF TITLE. In the event title to any Tract of unitized land shall fail and the true owner cannot be induced to join in this Agreement, such Tract shall be automatically regarded as not committed hereto, and there shall be such readjustment of future costs and benefits as may be required on account of the loss of such title. In the event of a dispute as to title to any Royalty, Working Interest, or other interests subject thereto, payment or delivery on account thereof may be withheld without liability for interest until the dispute is finally settled; provided, that, as to Federal lands or leases, no payments of funds due the United States shall be withheld, but such funds shall be deposited as directed by the A.O. to be held as unearned money pending final settlement of the title dispute, and then applied as earned or returned in accordance with such final settlement.

If the title or right of any party claiming the right to receive in kind all or any portion of the Unitized Substances allocated to a Tract is in dispute, Unit Operator at the direction of Working Interest Owners shall either:

(a) require that the party to whom such Unitized Substances are delivered or to whom the proceeds thereof are paid furnish security for the proper accounting therefor to the rightful owner if the title or right of such party fails in whole or in part, or

(b) withhold and market the portion of Unitized Substances with respect to which title or right is in dispute, and impound the proceeds thereof until such time as the title or right thereto is established by a final judgment of a court of competent jurisdiction or otherwise to the satisfaction of Working Interest Owners, whereupon the proceeds so impounded shall be paid to the party rightfully entitled thereto.

Each Working Interest Owner shall indemnify, hold harmless, and defend all other Working Interest Owners against any and all claims by any party against the interest attributed to such Working Interest Owner on Exhibit B.

Unit Operator as such is relieved from any responsibility for any defect or failure of any title hereunder.

SECTION 22. LEASES AND CONTRACTS CONFORMED AND EXTENDED. The terms, conditions and provisions of all leases, subleases and other contracts relating to exploration, drilling, development or operation for oil or gas on lands committed to this Agreement are hereby expressly modified and amended to the extent necessary to make the same conform to the provisions hereof, but otherwise to remain in full force and effect, and the parties hereto hereby consent that the Secretary shall by its approval hereof, or by the approval hereof by its duly authorized representatives, does hereby establish, alter, change or revoke the drilling, producing, rental, minimum Royalty and Royalty requirements of Federal leases committed hereto and the regulations in respect thereto to conform said requirements to the provisions of this Agreement.

Without limiting the generality of the foregoing, all leases, subleases and contracts are particularly modified in accordance with the following:

(a) The development and operation of lands subject to this Agreement under the terms hereof shall be deemed full performance of all obligations for development and operation with respect to each Tract subject to this Agreement, regardless of whether there is any development of any Tract of the Unit Area, notwithstanding anything to the contrary in any lease, operating agreement or other contract by and between the parties hereto, or their respective predecessors in interest, or any of them.

(b) Drilling, producing or improved recovery operations performed hereunder shall be deemed to be performed upon and for the benefit of each Tract, and no lease shall be deemed to expire by reason of failure to drill or produce wells situated on the land therein embraced.

(c) Suspension of drilling or producing operations within the Unit Area pursuant to direction or consent of the Land Commissioner or the A.O., or their duly authorized representatives, shall be deemed to constitute such suspension pursuant to such direction or consent as to each Tract within the Unitized Area.

(d) Each lease, sublease, or contract relating to the exploration, drilling, development, or operation for oil and gas which by its terms might expire prior to the termination of this Agreement, is hereby extended beyond any such term so provided therein, so that it shall be continued in full force and effect for and during the term of this Agreement.

(e) The segregation of any Federal lease committed to this Agreement is governed by the following provision in the fourth paragraph of Section 17(j) of the Mineral Leasing Act, as amended by the Act of September 2, 1960 (74 Stat. 781-784): "Any (Federal) lease heretofore or hereafter committed to any such (unit) plan embracing lands that are in part within and in part outside of the area covered by any such plan shall be segregated into separate leases as to the lands committed and the lands not committed as of the effective date of unitization; provided, however, that any such lease as to the nonunitized portion shall continue in force and effect for the term thereof but not less than two years from the date of such segregation and so long thereafter as oil or gas is produced in paying quantities."

SECTION 23. COVENANTS RUN WITH LAND. The covenants herein shall be construed to be covenants running with the land with respect to the interest of the parties hereto and their successors in interest until this Agreement terminates, and any grant, transfer or conveyance of interest in land or leases subject hereto shall be and hereby is conditioned upon the assumption of all privileges and obligations hereunder by the grantee, transferee or other successor in interest. No assignment or transfer of any Working Interest subject hereto shall be binding upon Unit Operator until the first day of the calendar month after Unit Operator is furnished with the original, or acceptable photostatic or certified copy, of the recorded instrument or transfer; and no assignment or transfer of any Royalty Interest subject hereto shall be binding upon the Working Interest Owner responsible therefor until the first day of the calendar month after said Working Interest Owner is furnished with the original, or acceptable photostatic or certified copy, or the recorded instrument or transfer.

SECTION 24. EFFECTIVE DATE AND TERM. This Agreement shall become binding upon each party who executes or ratifies it as of the date of execution or ratification by such party and shall become effective on the first day of the calendar month next following the approval of this Agreement by the A.O. and the Commission.

If this Agreement does not become effective on or before January 1, 1994, it shall ipso facto expire on said date (hereinafter called "Expiration Date") and thereafter be of no further force or effect, unless prior thereto this Agreement has been executed or ratified by Working Interest Owners owning a combined Participation of any lease seventy-five percent (75%); and at least seventy-five percent (75%) of such Working Interest Owners committed to this Agreement have decided to extend the Expiration Date for a period not to exceed one (1) year (hereinafter called "Extended Expiration Date"). If the Expiration Date is so extended and this Agreement does not become effective on or before the Extended Expiration Date, it shall ipso facto expire on the Extended Expiration Date and thereafter be of no further force and effect.

Unit Operator shall file for record within thirty (30) days after the Effective Date of this Agreement, in the office of the County Clerk of Eddy County, New Mexico, a counterpart of this Agreement allowing it to become effective according to its terms and stating further the Effective Date.

The terms of this Agreement shall be for and during the time that Unitized Substances are produced in paying quantities from the unitized land and so long thereafter as drilling, reworking or other operations (including improved

recovery operations) are prosecuted thereon without cessation of more than ninety (90) consecutive days unless sooner terminated as herein provided.

This Agreement may be terminated with the approval of the A.O. by Working Interest Owners owning eighty percent (80%) of the Unit Participation then in effect whenever such Working Interest Owners determine that Unit Operations are no longer profitable, or in the interest of conservation. Upon approval, such termination shall be effective as of the first day of the month after said Working Interest Owners' determination. Notice of any such termination shall be filed by Unit Operator in the office of the County Clerk of Eddy County, New Mexico, within thirty (30) days of the effective date of termination.

Upon termination of this Agreement, the parties hereto shall be governed by the terms and provisions of the leases and contracts affecting the separate Tracts just as if this Agreement had never been entered into.

Notwithstanding any other provisions in the leases unitized under this Agreement, Royalty Owners hereby grant Working Interest Owners a period of six months after termination of this Agreement in which to salvage, sell, distribute or otherwise dispose of the personal property and facilities used in connection with Unit Operations.

SECTION 25. RATE OF PROSPECTING, DEVELOPMENT & PRODUCTION. All production and the disposal thereof shall be in conformity with allocations and quotas made or fixed by any duly authorized person or regulatory body under any Federal or State Statute. This A.O. is hereby vested with authority to alter or modify from time to time, in his discretion, the rate of prospecting and development and within the limits made or fixed by the Division to alter or modify the quantity and rate of production under this Agreement, such authority being hereby limited to alteration or modification in the public interest, the purpose thereof and the public interest to be served thereby to be stated in the order of alteration or modification; provided, further, that no such alteration or modification shall be effective as to any land of the State of New Mexico as to the rate of prospecting and development in the absence of the specific written approval thereof by the Land Commissioner and as to any lands in the State of New Mexico or privately-owned lands subject to this Agreement or to the quantity and rate of production from such lands in the absence of specific written approval thereof by the Division.

Powers in this Section vested in the A. O. shall only be exercised after notice to Unit Operator and opportunity for hearing to be held not less than fifteen (15) days from notice, and thereafter subject to administrative appeal before becoming final.

SECTION 26. NONDISCRIMINATION. Unit Operator in connection with the performance of work under this Agreement relating to leases of the United States, agrees to comply with all of the provisions of Section 202(1) to (7) inclusive of Executive Order 11246, (30 F.R. 12319), which are hereby incorporated by reference in this Agreement.

SECTION 27. APPEARANCES. Unit Operator shall have the right to appear for or on behalf of any interests affected hereby before the Land Commissioner, the Department, and the Division, and to appeal from any order issued under the rules and regulations of the Land Commissioner, the Department or the Division, or to apply for relief from any of said rules and regulations or in any proceedings relative to operations before the Land Commissioner, the Department or the Division or any other legally constituted authority; provided, however, that any other interested party shall also have the right at his or its own expense to be heard in any such proceeding.

SECTION 28. NOTICES. All notices, demands, objections or statements required hereunder to be given or rendered to the parties hereto shall be deemed fully given if made in writing and personally delivered to the party or parties or sent by postpaid certified or registered mail, addressed to such party or parties at their last known address set forth in connection with the signatures hereto or to the ratification or consent hereof or to such other address as any such party or parties may have furnished in writing to the party sending the notice, demand or statement.

SECTION 29. NO WAIVER OF CERTAIN RIGHT. Nothing in this Agreement contained shall be construed as a waiver by any party hereto of the right to assert any legal or constitutional right or defense as to the

validity or invalidity of any law of the State wherein said Unitized Lands are located, or regulations issued thereunder in any way affecting such party, or as a waiver by any such party of any right beyond his or its authority to waive; provided, however, each party hereto covenants that it will not resort to any action to partition the unitized land or the Unit Equipment.

SECTION 30. EQUIPMENT AND FACILITIES NOT FIXTURES ATTACHED TO REALTY. Each Working Interest Owner has heretofore placed and used on its Tract or Tracts committed to this Agreement various well and lease equipment and other property, equipment and facilities. It is also recognized that additional equipment and facilities may hereafter be placed and used upon the Unitized Land as now or hereafter constituted. Therefore, for all purposes of this Agreement, any such equipment shall be considered to be personal property and not fixtures attached to realty. Accordingly, said well and lease equipment and personal property is hereby severed from the mineral estates affected by this Agreement, and it is agreed that any such equipment and personal property shall be and remain personal property of the Working Interest Owners for all purposes.

SECTION 31. UNAVOIDABLE DELAY. All obligations under this Agreement requiring the Unit Operator to commence or continue improved recovery operations or to operate on or produce Unitized Substances from any of the lands covered by this Agreement shall be suspended while, but only so long as, the Unit Operator, despite the exercise of due care and diligence, is prevented from complying with such obligations, in whole or in part, by strikes, acts of God, Federal, State or municipal law or agency, unavoidable accident, uncontrollable delays in transportation, inability to obtain necessary materials or equipment in open market, or other matters beyond the reasonable control of the Unit Operator whether similar to matters herein enumerated or not.

SECTION 32. NONJOINER AND SUBSEQUENT JOINER. Joinder by any Royalty Owner, at any time, must be accompanied by appropriate joinder of the corresponding Working Interest Owner in order for the interest of such Royalty Owner to be regarded as effectively committed. Joinder to this Agreement by a Working Interest Owner, at any time, must be accompanied by appropriate joinder to the Unit Operating Agreement in order for such interest to be regarded as effectively committed to this Agreement.

Any oil or gas interest in the Unitized Formations not committed hereto prior to submission of this Agreement to the A.O. for final approval may thereafter be committed hereto upon compliance with the applicable provisions of this Section and of Section 14 (Tracts Qualified for Participation) hereof, at any time up to the Effective Date hereof on the same basis of Tract Participation as provided in Section 13, by the owner or owners thereof subscribing, ratifying, or consenting in writing to this Agreement and, if the interest is a Working Interest, by the owner of such interest subscribing also to the Unit Operating Agreement.

It is understood and agreed, however, that from and after the Effective Date hereof the right of subsequent joinder as provided in this Section shall be subject to such requirements or approvals and on such basis as may be agreed upon by Working Interest Owners owning not less than sixty-five percent (65%) of the Unit Participation then in effect, and approved by the A.O. Such subsequent joinder by a proposed Working Interest Owner must be evidenced by the execution or ratification of this Agreement and the Unit Operating Agreement and, where Federal land is involved, such joinder must be approved by the A.O. Such joinder by a proposed Royalty Owner must be evidenced by the execution, ratification or consent of this Agreement and must be consented to in writing by the Working Interest Owner responsible for the payment of any benefits that may accrue hereunder on behalf of such proposed Royalty Owner. Except as may be otherwise herein provided, subsequent joinder to this Agreement shall be effective as of the first day of the month following the filing with the A.O. of duly executed counterparts of any and all documents necessary to establish effective commitment of any Tract or interest to this Agreement, unless objection to such joinder by the A.O. is duly made sixty (60) days after such filing.

SECTION 33. COUNTERPARTS. This Agreement may be executed in any number of counterparts, no one of which needs to be executed by all parties and may be ratified or consented to by separate instrument in writing, specifically referring hereto, and shall be binding upon all those parties who have executed such a counterpart, ratification or consent hereto with the same force and effect as if all parties had signed the same document, and regardless of whether or not it is executed by all other parties owning or claiming an interest in the land within the

described Unit Area. Furthermore, this Agreement shall extend to and be binding on the parties hereto, their successors, heirs and assigns.

SECTION 34. JOINDER IN DUAL CAPACITY. Execution as herein provided by any party as either a Working Interest Owner or a Royalty Owner shall commit all interests owned or controlled by such party; provided, that if the party is the owner of a Working Interest, he must also execute the Unit Operating Agreement.

SECTION 35. TAXES. Each party hereto shall, for its own account, render and pay its share of any taxes levied against or measured by the amount or value of the Unitized Substances produced from the unitized land; provided, however, that if it is required or if it be determined that the Unit Operator or the several Working Interest Owners must pay or advance said taxes for the account of the parties hereto, it is hereby expressly agreed that the parties so paying or advancing said taxes shall be reimbursed therefor by the parties hereto, including Royalty Owners, who may be responsible for the taxes on their respective allocated share of said Unitized Substances. No taxes shall be charged to the United States, nor to any lessor who has a contract with a lessee which requires his lessee to pay such taxes.

SECTION 36. NO PARTNERSHIP. The duties, obligations and liabilities of the parties hereto are intended to be several and not joint or collective. This Agreement is not intended to create, and shall not be construed to create, an association or trust, or to impose a partnership duty, obligation or liability with regard to any one or more of the parties hereto. Each party hereto shall be individually responsible for its own obligation as herein provided.

SECTION 37. PRODUCTION AS OF THE EXECUTIVE DATE. Unit Operator shall make a proper and timely gauge of all leases and other tanks within the Unit Area in order to ascertain the amount of merchantable oil above the pipeline connection, in such tanks as of 7:00 a.m. on the Effective Date hereof. All such oil which has been produced in accordance with established allowables shall be and remain the property of the Working Interest Owner entitled thereto, the same as if the unit had not been formed; and the responsible Working Interest Owner shall promptly remove said oil from the unitized land. Any such oil not so removed shall be sold by Unit Operator for the account of such Working Interest Owners, subject to the payment of all Royalty to Royalty Owners under the terms hereof. The oil that is in excess of the prior allowable of the wells from which it was produced shall be regarded as Unitized Substances produced after the Effective Date hereof.

If, as of the Effective Date hereof, any Tract is overproduced with respect to the allowable of the wells on that Tract and the amount of over-production has been sold or otherwise disposed of, such over-production shall be regarded as a part of the Unitized Substances produced after the Effective Date hereof and shall be charged to such Tract as having been delivered to the parties entitled to Unitized Substances allocated to such Tract.

SECTION 38. NO SHARING OF MARKET. This Agreement is not intended to provide and shall not be construed to provide, directly or indirectly, for any cooperative refining, joint sale or marketing of Unitized Substances.

SECTION 39. STATUTORY UNITIZATION. If and when Working Interest Owners owning at least seventy-five percent (75%) Unit Participation and Royalty Owners owning at least seventy-five percent (75%) Royalty Interest have become parties to this Agreement or have approved this Agreement in writing and such Working Interest Owners have also become parties to the Unit Operating Agreement, Unit Operator may make application to the Division for statutory unitization of the uncommitted interests pursuant to the Statutory Unitization Act (Chapter 65, Article 14, N.M.S. 1953 Annotated). If such application is made and statutory unitization is approved by the Division, then effective as of the date of the Division's order approving statutory unitization, this Agreement and/or the Unit Operating Agreement shall automatically be revised and/or amended in accordance with the following:

(1) Section 14 of this Agreement shall be revised by substituting for the entire said section the following:

"SECTION 14. TRACTS QUALIFIED FOR PARTICIPATION. On and after the Effective Date hereof, all Tracts within the Unit Area shall be entitled to participation in the production of Unitized Substances."

- (2) Section 24 of this Agreement shall be revised by substituting for the first three paragraphs of said section the following:

"SECTION 24. EFFECTIVE DATE AND TERM. This Agreement shall become effective on the first day of the calendar month next following the effective date of the Division's order approving statutory unitization upon the terms and conditions of this Agreement, as amended (if any amendment is necessary) to conform to the Division's order; approval of this Agreement, as so amended, by the A.O. and the filing by Unit Operator of this Agreement or notice thereof for record in the office of the County Clerk of Eddy County, New Mexico. Unit Operator shall not file this Agreement or notice thereof for record, and hence this Agreement shall not become effective, unless within ninety (90) days after the date all other prerequisites for effectiveness of this Agreement have been satisfied, such filing is approved by Working Interest Owners owning a combined Unit Participation of at least sixty-five percent (65%) as to all Tracts within the Unit Area.

"Unit Operator shall, within thirty (30) days after the Effective Date of this Agreement, file for record in the office of the County Clerk of Eddy County, New Mexico, a certificate to the effect that this Agreement has become effective in accordance with its terms, therein identifying the Division's order approving statutory unitization and stating the Effective Date."

- (3) This Agreement and/or the Unit Operating Agreement shall be amended in any and all respects necessary to conform to the Division's order approving statutory unitization.

Any and all amendments of this Agreement and/or the Unit Operating Agreement that are necessary to conform said agreements to the Division's order approving statutory unitization shall be deemed to be hereby approved in writing by the parties hereto without any necessity for further approval by said parties, except as follows:

- (1) If any amendment of this Agreement has the effect of reducing any Royalty Owner's participation in the production of Unitized Substances, such Royalty Owner shall not be deemed to have hereby approved the amended agreement without the necessity of further approval in writing by said Royalty Owner; and
- (2) If any amendment of this Agreement and/or the Unit Operating Agreement has the effect of reducing any Working Interest Owner's participation in the production of Unitized Substances or increasing such Working Interest Owner's share of Unit Expense, such Working Interest Owner shall not be deemed to have hereby approved the amended agreements without the necessity of further approval in writing by said Working Interest Owner.

Executed as of the day and year first above written.

WORKING INTEREST OWNERS

ATTEST:

HANSON OPERATING COMPANY, INC.

Secretary-Treasurer

By: _____
Ray Willis, Vice-President
Management & Finance

STATE OF NEW MEXICO

COUNTY OF CHAVES

The foregoing instrument was acknowledged before me this ____ day of _____, 1993, by RAY WILLIS, Vice-President, Management & Finance, for HANSON OPERATING COMPANY, INC., a New Mexico corporation, on behalf of said corporation.

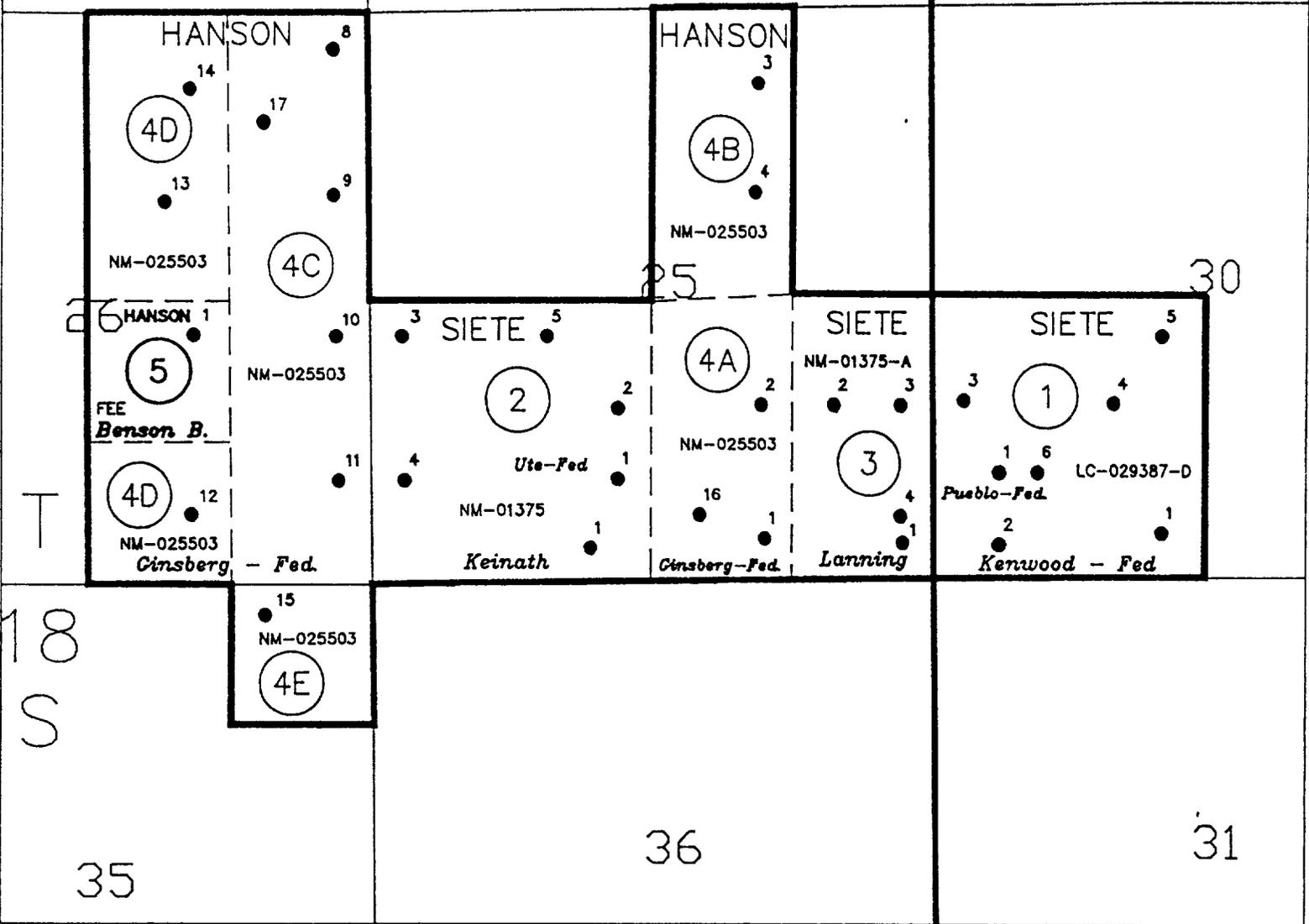
Notary Public

My Commission expires:

dr/oil/hanblm2.agr

R 30 E

R 31 E



UNIT AREA BOUNDARY

② TRACT NUMBER

ACRES PERCENTAGE

STATE LAND	-0-	0%
FEDERAL LAND	871	95.6%
FEE LAND	40	4.4%
TOTAL	911	100.0%

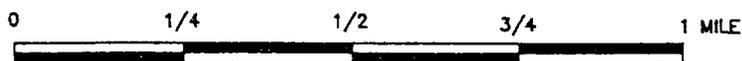
HANSON OPERATING COMPANY, INC.

BENSON SHUGART WATERFLOOD UNIT AREA PLAT

HANSON - SIETE - MANZANO

SHUGART FIELD
EDDY COUNTY, NEW MEXICO

EXHIBIT A



SCALE

BENSON SHUGART WATERFLOOD UNIT

TRACT	LEGAL DESCRIPTION	WELLS	INTEREST OWNER	CALCULATION OF INTEREST	TRACT INTEREST	TRACT FACTOR	NET REVENUE UNIT PARTICIPATION	SHOES UNIT PARTICIPATION	TYPE OF INTEREST			
TRACT 1	Township 18 South, Range 31 East, N43P4 SECTION 26: E228W/4 Lots 3 and 4 (W/228W/4), E228W/4	Kerwood Fed #1 (SESW) Kerwood Fed #2 (NWSW) Kerwood Fed #3 (NESEW) Kerwood Fed #4 (SESW) Kerwood Fed #5 (SESW) Kerwood Fed #6 (SESW) Public Fed #1	United States of America*	12.5%	0.12500000	0.01904093	0.00236012		RI			
			William G. Parker, Nancy Parker Strong and Sylvia S. Voorhies, Trustees of the Testamentary Trusts created under Article V of the Last Will and Testament of T. R. Parker, Deceased	3.375%	0.03375000	0.01904093	0.00044293		ORRI			
			Minnesota Limited Partnership	8.125%	0.08125000	0.01904093	0.00173748		ORRI			
			Mansano Oil Corporation	33.33% X 75%	0.24987500	0.01904093	0.00475976	0.00834434	WI			
			Midrite Oil & Gas Corporation	33.33% X 75%	0.24987500	0.01904093	0.00475976	0.00834434	WI			
			State Oil & Gas Corporation	33.33% X 75%	0.25000000	0.01904093	0.00478118	0.00834425	WI			
			TOTAL TRACT 1:	1.00000000	0.01904093	0.01904093						
			TRACT 2	Township 18 South, Range 30 East, N43P4 SECTION 26: 9W/4	Kerwood Fed #1 Kerwood Fed #2 Kerwood Fed #3 Kerwood Fed #4 Kerwood Fed #5 Uta Federal #1	United States of America	12.5%	0.12500000	0.19743666	0.026467949		RI
						Barbara Kruse Frankenhoff, married dealing in her sole & separate prop.	0.88444%	0.00884444	0.19743666	0.00137108		ORRI
						Barbara Leigh Terry, married dealing in her sole & separate property	0.88444%	0.00884444	0.19743666	0.00137108		ORRI
Queen Lynn Terry, married dealing in her sole & separate property	0.88444%	0.00884444				0.19743666	0.00137108		ORRI			
Mr. Karl Hegeler, married dealing in the sole & separate property	(1/2 of 1/4 of 0.0052083)	0.00085104				0.19743666	0.00012864		ORRI			
Mrs. Karl Hegeler, married dealing in her sole & separate property	(1/2 of 1/4 of 0.0052083)	0.00085104				0.19743666	0.00012864		ORRI			
First Baptist Church of Arsenault	(1/4 of 0.0052083)	0.00130208				0.19743666	0.00025708		ORRI			
Immanuel Lutheran Church of Arsenault	(1/4 of 0.0052083)	0.00130208				0.19743666	0.00025708		ORRI			
St. Paul's Protestant Episcopal Church of Arsenault	(1/4 of 0.0052083)	0.00130208				0.19743666	0.00025708		ORRI			
Jula R. Kerwin	(1/2 of 1/16)	0.02083333				0.19743666	0.00413328		ORRI			
Barby R. Lanning	(1/12 of 1/16)	0.00202083	0.19743666	0.00102831		ORRI						
Anthony D. Eckman	(1/12 of 1/16)	0.00202083	0.19743666	0.00102831		ORRI						
Debra Jean Joyce, a single woman	(33.33% of 81.54%)	0.27080625	0.19743666	0.08346689	0.08580640	WI						
Midrite Oil & Gas Corporation	(33.33% of 81.54%)	0.27080625	0.19743666	0.08346689	0.08580640	WI						
State Oil & Gas Corporation	(33.33% of 81.54%)	0.27080625	0.19743666	0.08346689	0.08580640	WI						
Mansano Oil Corporation	(33.33% of 81.54%)	0.27080625	0.19743666	0.08346689	0.08580640	WI						
TOTAL TRACT 2:	1.00000000	0.19743666	0.19743666									
TRACT 3	Township 18 South, Range 30 East, N43P4 SECTION 26: E228W/4	Lanning Fed #1 Lanning Fed #2 Lanning Fed #3 Lanning Fed #4	United States of America	12.5%	0.12500000	0.05394938	0.00873117		RI			
			Barbara Kruse Frankenhoff, married dealing in her sole & separate prop.	0.88444%	0.00884444	0.05394938	0.00037366		ORRI			
			Barbara Leigh Terry, married dealing in her sole & separate property	0.88444%	0.00884444	0.05394938	0.00037366		ORRI			
			Queen Lynn Terry, married dealing in her sole & separate property	0.88444%	0.00884444	0.05394938	0.00037366		ORRI			
			Mr. Karl Hegeler, married dealing in the sole & separate property	(1/2 of 1/4 of 0.0052083)	0.00085104	0.05394938	0.00005608		ORRI			
			Mrs. Karl Hegeler, married dealing in her sole & separate property	(1/2 of 1/4 of 0.0052083)	0.00085104	0.05394938	0.00005608		ORRI			
			First Baptist Church of Arsenault	(1/4 of 0.0052083)	0.00130208	0.05394938	0.00007012		ORRI			
			Immanuel Lutheran Church of Arsenault	(1/4 of 0.0052083)	0.00130208	0.05394938	0.00007012		ORRI			
			St. Paul's Protestant Episcopal Church of Arsenault	(1/4 of 0.0052083)	0.00130208	0.05394938	0.00007012		ORRI			
			Jula R. Kerwin	(1/2 of 1/16)	0.02083333	0.05394938	0.00112186		ORRI			
Barby R. Lanning	(1/12 of 1/16)	0.00202083	0.05394938	0.00028047		ORRI						
Anthony D. Eckman	(1/12 of 1/16)	0.00202083	0.05394938	0.00028047		ORRI						
Debra Jean Joyce, a single woman	(33.33% of 81.54%)	0.00202083	0.05394938	0.00028047	0.01794400	WI						
Midrite Oil & Gas Corporation	(33.33% of 81.54%)	0.27080625	0.05394938	0.01458275	0.01794400	WI						
State Oil & Gas Corporation	(33.33% of 81.54%)	0.27080625	0.05394938	0.01458275	0.01794400	WI						
Mansano Oil Corporation	(33.33% of 81.54%)	0.27080625	0.05394938	0.01458275	0.01794400	WI						
TOTAL TRACT 3:	1.00000000	0.05394938	0.05394938									

TRACT	LEGAL DESCRIPTION	WELLS	INTEREST OWNER	CALCULATION OF INTEREST	TRACT INTEREST	TRACT FACTOR	NET REVENUE UNIT PARTICIPATION	GROSS UNIT PARTICIPATION	TYPE OF INTEREST	
TRACT 4A	Township 18 South, Range 30 East, N48W/4E/4 SECTION 26: W/2NE/4	Ginsberg Fed 1 (SW/4NE/4) Ginsberg Fed 2 (NW/4SE/4) Ginsberg Fed 16 (SW/4SE/4)	United States of America Anne R. Hyman & Lynne H. Drash, Jurs Ruth Gluck, separate Mary Louise Scott, separate Barbara Goldham, separate Babe Development Co., Inc. Hanson-Medtrix Petroleum Company, a New Mexico Limited Partnership Thomas R. Loffland & Barbara Loffland Margaret R. Loffland Trust Barbara Loffland Midskott Tom R. Loffland Samuel B. Spencer Madricks Oil & Gas Corporation	12.5%	0.12500000	0.04786556	0.00068195			RI
				1.25%	0.01250000	0.04786556	0.00068195			ORRI
				3/4 of 1.25%	0.00937500	0.04786556	0.0044865			ORRI
				(1/40 of 2.5%) plus (1/40 of 2.5%)	0.00125000	0.04786556	0.00068682			ORRI
				(1/40 of 2.5%)	0.00062500	0.04786556	0.0002981			ORRI
				(1/20 of 2.5%)	0.00125000	0.04786556	0.00068682			ORRI
				(22.5% of 85%)	0.19125000	0.04786556	0.00818236			ORRI
				(5% of 85%)	0.04250000	0.04786556	0.00203388			WI
				(5% of 85%)	0.04250000	0.04786556	0.00203388			WI
				(12.5% of 85%)	0.10625000	0.04786556	0.00506486			WI
				(50% of 85%)	0.42500000	0.04786556	0.02038882			WI
				TOTAL TRACT 4A:				1.00000000	0.04786556	0.04786556
TRACT 4B	Township 18 South, Range 30 East, N48W/4E/4 SECTION 26: W/2NE/4	Ginsberg Fed 3 (NW/4NE/4) Ginsberg Fed 4 (SW/4NE/4)	United States of America Anne R. Hyman & Lynne H. Drash, Jurs Ruth Gluck, separate Mary Louise Scott, separate Barbara Goldham, separate Babe Development Co., Inc. Hanson-Medtrix Petroleum Company, a New Mexico Limited Partnership Thomas R. Loffland & Barbara Loffland Margaret R. Loffland Trust Barbara Loffland Midskott Tom R. Loffland Samuel B. Spencer Madricks Oil & Gas Corporation	12.5%	0.12500000	0.10620261	0.01312756			RI
				1.25%	0.01250000	0.10620261	0.00191278			ORRI
				3/4 of 1.25%	0.00937500	0.10620261	0.00084657			ORRI
				(1/40 of 2.5%) plus (1/40 of 2.5%)	0.00125000	0.10620261	0.00019127			ORRI
				(1/40 of 2.5%)	0.00062500	0.10620261	0.00009564			ORRI
				(1/20 of 2.5%)	0.00125000	0.10620261	0.00019128			ORRI
				(22.5% of 85%)	0.18125000	0.10620261	0.02008617			ORRI
				(5% of 85%)	0.04250000	0.10620261	0.00448633			WI
				(5% of 85%)	0.04250000	0.10620261	0.00448633			WI
				(12.5% of 85%)	0.10620261	0.10620261	0.01115943			WI
				(50% of 85%)	0.42500000	0.10620261	0.04483372			WI
				TOTAL TRACT 4B:				1.00000000	0.10620261	0.10620261
TRACT 4C	Township 18 South, Range 30 East, N48W/4E/4 SECTION 26: E/2E/2	Ginsberg Fed 8 (NE/4NE/4) Ginsberg Fed 10 (NE/4SE/4) Ginsberg Fed 11 (SE/4SE/4) Ginsberg Fed 17 (NE/4NE/4)	United States of America Anne R. Hyman & Lynne H. Drash, Jurs Ruth Gluck, separate Mary Louise Scott, separate Barbara Goldham, separate Babe Development Co., Inc. Ginsberg Investments Hanson-Medtrix Petroleum Company, a New Mexico Limited Partnership Hanson Operating Company, Inc. Nelson B. Sweet & Mary Lillian Sweet, W/4 Jurs Babe Development Co., Inc. Madricks Oil & Gas Corporation	12.5%	0.12500000	0.36986574	0.04488206			RI
				1.25%	0.01250000	0.36986574	0.00448621			ORRI
				3/4 of 1.25%	0.00937500	0.36986574	0.00337396			ORRI
				(1/40 of 2.5%) plus (1/40 of 2.5%)	0.00125000	0.36986574	0.00044882			ORRI
				(1/40 of 2.5%)	0.00062500	0.36986574	0.00022441			ORRI
				(1/20 of 2.5%)	0.00125000	0.36986574	0.00044882			ORRI
				2.85625%	0.02856250	0.36986574	0.00358488			ORRI
				(1/2 of 83.35% of 25% of 82.34375%)	0.08677131	0.36986574	0.03088536			WI
				(1/2 of 16.67% of 25% of 82.34375%)	0.01718828	0.36986574	0.00817466			WI
				(1/2 of 16.67% of 25% of 82.34375%)	0.01718828	0.36986574	0.00817466			WI
				(25% of 82.34375%)	0.20686828	0.36986574	0.07407888			WI
				(50% of 82.34375%) plus (1/2 of 83.35% of 25% of 82.34375%)	0.41171875	0.36986574	0.17302516			WI
(1/2 of 83.35% of 25% of 82.34375%)	0.08677131	0.36986574	0.21741198			WI				
TOTAL TRACT 4C:				1.00000000	0.36986574	0.36986574				

TRACT	LEGAL DESCRIPTION	WELLS	INTEREST OWNER	CALCULATION OF INTEREST	TRACT INTEREST	TRACT FACTOR	NET REVENUE UNIT PARTICIPATION	GROSS UNIT PARTICIPATION	TYPE OF INTEREST			
TRACT 40	Township 18 South, Range 30 East, N41/4E4 SECTION 28: W/2NE/4, SW/4SE/4 Ginsberg Fed 14 (NW/4NE/4)		United States of America	12.5%	0.12500000	0.14228200	0.01776278	0.00186942	ORRI			
			Bernard R. Ginsberg & Mary Hannah Ginsberg, Co-Trustees of the Bernard R. Ginsberg & Mary Hannah Ginsberg Trust under Agreement dated January 24, 1985	1.328125%	0.01328125	0.14228200	0.00094471		ORRI			
			Bernard R. Ginsberg, Trustee of the Madelon E. Ginsberg Trust Created under Agreement dated 1/8/85	0.0940625%	0.00094062	0.14228200	0.00047185		ORRI			
			Bernard R. Ginsberg, Trustee of the Benjamin B. Ginsberg Trust under the Last Will and Testament of Benjamin B. Ginsberg dated 6/23/78	1.25%	0.01250000	0.14228200	0.00177628		ORRI			
			Anne R. Hyman & Lynne H. Drizin, Jtrs	3/4 of 1.25%	0.00937500	0.14228200	0.00135371		ORRI			
			Mary Louisa Scott, separate	(1/40 of 2.5%) plus (1/40 of 2.5%)	0.00125000	0.14228200	0.00017763		ORRI			
			Barbara Bidleman, separate	(1/40 of 2.5%)	0.00062500	0.14228200	0.00008881		ORRI			
			Saba Development Co., Inc.	(1/20 of 2.5%)	0.00125000	0.14228200	0.00017763		ORRI			
			Hanson-Madricks Petroleum Company, a New Mexico Limited Partnership	1/2 of 20.37221% of 50% of 82.34375%	0.04189810	0.14228200	0.00569630		ORRI			
			Hanson Operating Company, Inc.	1/2 of 4.07539% of 50% of 82.34375%	0.00089857	0.14228200	0.00119581		ORRI			
			Faegun B. Sweet & Mary Lela Sweet, W/ Jtrs	1/2 of 4.07539% of 50% of 82.34375%	0.00089857	0.14228200	0.00119581		ORRI			
			Grover N. Strader, marital status unknown	28.87748% of 50% of 82.34375%	0.19047783	0.14228200	0.02742283		ORRI			
This Development Company, a Limited Partnership	50% of 82.34375% plus	0.41171878	0.14228200	0.06463913		ORRI						
Madricks Oil & Gas Corporation	1/2 of 20.37221% of 50% of 82.34375%	0.04189810	0.14228200	0.00569630		ORRI						
TOTAL TRACT 40:				1.00000000		0.14228200	0.14228200					
TRACT 4E	Township 18 South, Range 30 East, N41/4E4 SECTION 28: NE/4E/4		United States of America	12.5%	0.12500000	0.01974462	0.00246908	0.00144643	ORRI			
			Anne R. Hyman & Lynne H. Drizin, Jtrs	1.25%	0.01250000	0.01974462	0.00024691	0.00014463	ORRI			
			Ruth Bluck, separate	3/4 of 1.25%	0.00937500	0.01974462	0.00018511		ORRI			
			Mary Louisa Scott, separate	(1/40 of 2.5%) plus (1/40 of 2.5%)	0.00125000	0.01974462	0.00002468		ORRI			
			Barbara Bidleman, separate	(1/40 of 2.5%)	0.00062500	0.01974462	0.00001234		ORRI			
			Saba Development Co., Inc.	(1/20 of 2.5%)	0.00125000	0.01974462	0.00002468		ORRI			
			Madricks Oil & Gas Corporation	85.0% x 10.0%	0.08500000	0.01974462	0.00187829		ORRI			
			Hanson-Madricks Petroleum Company	85.0% x 90.0%	0.76500000	0.01974462	0.01519483		ORRI			
			TOTAL TRACT 4E:				1.00000000		0.01974462	0.01974462		
			TRACT 5	Township 18 South, Range 30 East, N41/4E4 SECTION 28: NW/4SE/4		Donald E. Blackman Testamentary Trust	50% of 12.5%	0.06250000	0.06468429	0.00846339		RI
						Trustees are Pamela B. Link and J. E. Chaschfield	50% of 12.5%	0.06250000	0.06468429	0.00846339		RI
						Peace Abstract Company	50% of 87.5% plus	0.43750000	0.06468429	0.06468429		RI
Madricks Oil & Gas Corporation	50% of 88.33% of 50% of 87.5%	0.18229438				0.06468429	0.06468429		RI			
Hanson-Madricks Petroleum Company, a New Mexico Limited Partnership	50% of 88.33% of 50% of 87.5%	0.18229438				0.06468429	0.06468429		RI			
Hanson Operating Company, Inc.	50% of 18.67% of 50% of 87.5%	0.03946582				0.06468429	0.00200322		RI			
Hanson-Madricks Petroleum Company, a New Mexico Limited Partnership	50% of 18.67% of 50% of 87.5%	0.03946582				0.06468429	0.00200322		RI			
Reagan S. Sweet & Mary Lela Sweet, W/ Jtrs	50% of 18.67% of 50% of 87.5%	0.03946582				0.06468429	0.00200322		RI			
TOTAL TRACT 5:						1.00000000		0.06468429	0.06468429			

* Schedule "D" selling costs apply ranging from 1.5-1.75% to 3.0-1.75% on oil and from 1.5-1.75% to 1.6-2.0% on gas, but for the purpose of this schedule assumed to be 1.5%

BENSON SHUGART WATERFLOOD UNIT UNIT WORKING INTEREST

WORKING INTEREST OWNER	TRACT 1	TRACT 2	TRACT 3	TRACT 4A	TRACT 4B	TRACT 4C	TRACT 4D	TRACT 4E	TRACT 5	UNIT TOTAL
Barbara Loffland Middleton				0.00239278	0.00526103					0.00764381
Grover N. Shrader							0.02601610			0.02601610
Hanson Operating Company, Inc.						0.00749851	0.00144943		0.00228839	0.01123793
Hanson-McBride Petroleum Company, a New Mexico Limited Partnership				0.01076751	0.02362961	0.03748358	0.00724648	0.01777016	0.01144419	0.10834053
Hiko Development Company, a Limited Partnership							0.02772508			0.02772508
Manzano Oil Corporation	0.00634634	0.06682515	0.01796338							0.10000000 *
State Oil & Gas Corporation	0.00634825	0.06580540	0.01794900							0.10000000 *
McBride Oil & Gas Corporation	0.00634634	0.06680540	0.01794900	0.02392778	0.05251025	0.21741195	0.07837048	0.00197744	0.03891133	0.48343851 *
Reagan S. Sweet						0.00749851	0.00144943		0.00228838	0.01123732
Samuel S. Spencer				0.00598195	0.01312756					0.01910951
Thomas R. Loffland & Barbara Loffland Middleton, Co-Trustees of the Margaret R. Loffland Trust				0.00239278	0.00526103					0.00764381
Tom R. Loffland				0.00239278	0.00526103					0.00764381
Babe Development Co., Inc.						0.08996419				0.08996419
TRACT TOTALS:	0.01904083	0.19743595	0.05384838	0.04785658	0.10502051	0.35985674	0.14226200	0.01974482	0.05493429	1.00000000

* By Agreement dated 1/24/82, Manzano Oil Corporation and State Oil & Gas Corporation are to own a 10% Gross Working Interest in the present Unit Area and McBride Oil & Gas Corporation's interest has been decreased in order to solely bear the increased working interest to Manzano and State.

drh/ra/Manzonal unit

Exhibits 1 through 17
Complete Set

UNIT OPERATING AGREEMENT

SHUGART WATERFLOOD UNIT
EDDY COUNTY, NEW MEXICO

Hanson

3

10685 and 10686

**UNIT OPERATING AGREEMENT
SHUGART WATERFLOOD UNIT
EDDY COUNTY, NEW MEXICO**

THIS AGREEMENT, entered into as of the 1st day of December, 1992, by the parties who have signed the original of this instrument, a counterpart thereof, or other instrument agreeing to be bound by the provisions hereof;

WITNESSETH:

WHEREAS, the parties hereto as Working Interest Owners have executed, as of the date hereof, a Unit Agreement, entitled "Shugart Waterflood Unit, Eddy County, New Mexico", herein referred to as "Unit Agreement", which, among other things, provides for a separate agreement to be entered into by Working Interest Owners to provide for the development and operation of the Unit Area as therein defined;

NOW THEREFORE, in consideration of the mutual agreements herein set forth, it is agreed as follows:

**ARTICLE 1
CONFIRMATION OF UNIT AGREEMENT**

1.1 Confirmation of Unit Agreement. The Unit Agreement is hereby confirmed and by reference made a part of this Agreement. The definitions in the Unit Agreement are adopted for all purposes of this Agreement. If there is any conflict between the Unit Agreement and this Agreement, the Unit Agreement shall govern.

**ARTICLE 2
EXHIBITS**

2.1 Exhibits. The following exhibits are incorporated herein by reference:

2.1.1 Exhibits A, A-1 and B of the Unit Agreement.

2.1.2 Exhibit C, attached hereto, which is the Accounting Procedure applicable to Unit Operations. If there is any conflict between this Agreement and Exhibit C, this Agreement shall govern.

2.1.3 Exhibit D, which states the insurance coverages to be maintained pursuant to this Agreement.

2.1.4 Exhibit E, which is the Certificate of Compliance pursuant to the Code of Federal Regulations.

2.1.5 Exhibit F, which is a Notice of Unit Operating Agreement Lien which all parties by execution or ratification of this Agreement agree shall be placed of record and binding upon their interest.

2.1.6 Exhibit G, which is a Gas Balancing Agreement that all parties agree will govern gas production and distribution of proceeds.

2.2 Revision of Exhibits. Unit Operator shall revise Exhibit A from time to time as required to conform to changes in ownership of which Unit Operator has been notified as provided in the Unit Agreement.

ARTICLE 3
SUPERVISION OF OPERATIONS BY WORKING INTEREST OWNERS

3.1 Overall Supervision. Working Interest Owners shall exercise overall supervision and control of all matters pertaining to Unit Operations pursuant to this Agreement and the Unit Agreement. In the exercise of such authority, each Working Interest Owner shall act solely in its own behalf in the capacity of an individual owner and not on behalf of the owners as an entirety.

3.2 Specific Authorities and Duties. The matters with respect to which the Working Interest Owners shall decide and take action shall include, but not be limited to, the following:

3.2.1 Method of Operation. The method of operation, including any type of pressure maintenance, secondary recovery, or other recovery program to be employed.

3.2.2 Drilling of Wells. The drilling of any well whether for production of Unitized Substances, for use as an injection well, or for other purposes.

3.2.3 Well Recompletions and Change of Status. The recompletion, abandonment, or change of status of any well, or the use of any well for injection or other purposes.

3.2.4 Expenditures. The making of any single expenditure in excess of Fifty Thousand Dollars (\$50,000.00); provided that approval by Working Interest Owners of the drilling, reworking, deepening, or plugging back of any well shall include approval of all necessary expenditures required therefor, and for completing, testing, and equipping the same, including necessary flow lines, separators, and lease tankage.

3.2.5 Disposition of Unit Equipment. The selling or otherwise disposing of any major item of surplus Unit Equipment, if the current list price of new equipment similar thereto is Twenty-Five Thousand Dollars (\$25,000.00) or more.

3.2.6 Appearance Before a Court or Regulatory Agency. The designating of a representative to appear before any court or regulatory agency in matters pertaining to Unit Operations; provided that such designation shall not prevent any Working Interest Owner from appearing in person or from designating another representative in its own behalf.

3.2.7 Audits. The auditing of the accounts of Unit Operator pertaining to Unit Operations hereunder; provided that the audits shall:

3.2.7.1 not be conducted more than once each year except upon the resignation or removal of Unit Operator;

3.2.7.2 be made at the sole expense of the Working Interest Owner or Owners, jointly and severally, requesting same; and

3.2.7.3 be made upon not less than thirty (30) days written notice to Unit Operator.

3.2.8 Inventories. The taking of periodic inventories under the terms of Exhibit C.

3.2.9 Technical Services. The authorizing of charges to the joint account for services by consultants or Unit Operator's technical personnel not covered by the overhead charges provided by Exhibit C.

3.2.10 Assignments to Committees. The appointment of committees to study any problems in connection with Unit Operations.

3.2.11 Removal. The removal of Unit Operator and the selection of a successor.

- 3.2.12 Enlargement. The enlargement or contraction of the Unit Area.
- 3.2.13 Adjustment. The adjustment and readjustment of investments.
- 3.2.14 Termination. The termination of the Unit Agreement.

ARTICLE 4 MANNER OF EXERCISING SUPERVISION

4.1 Designation of Representatives. Each Working Interest Owner shall, in writing, inform Unit Operator of the names and addresses of the representatives and alternates who are authorized to represent and bind such Working Interest Owner with respect to Unit Operations. The representative or alternate may be changed from time to time by written notice to Unit Operator.

4.2 Meetings. All meetings of Working Interest Owners shall be called by Unit Operator upon its own motion or at the request of one or more Working Interest Owners, having a total Unit Participation of not less than ten percent (10%). No meeting shall be called on less than fourteen (14) days advance written notice with agenda for the meeting attached. Working Interest Owners who attend the meeting shall not be prevented from amending items included in the agenda or from deciding the amended item or other items presented at the meeting. The representative of Unit Operator shall be chairman of each meeting.

4.3 Voting Procedure. Working Interest Owners shall decide all matters coming before them as follows:

4.3.1 Voting Interest. Each Working Interest Owner shall have a voting interest equal to its Unit Participation.

4.3.2 Vote Required. Unless otherwise provided herein or in the Unit Agreement, all matters shall be decided by an affirmative vote of sixty-five percent (65%) or more voting interest; provided that, should any one Working Interest Owner have more than fifty percent (50%) voting interest, its vote must be supported by the vote of two or more Working Interest Owners having a combined voting interest of at least ten percent (10%).

4.3.3 Vote at Meeting by Non-Attending Working Interest Owner. Any Working Interest Owner who is not represented at a meeting may vote by letter or telegram addressed to the representative of the Unit Operator if its vote is received prior to the vote on the item.

4.3.4 Poll Votes. Working Interest Owners may vote on and decide, by letter or telegram, any matter submitted in writing to Working Interest Owners, if no meeting is requested, as provided in Section 4.2, within seven (7) days after the proposal is sent to Working Interest Owners. Unit Operator will give prompt notice of the results of the voting to all Working Interest Owners.

ARTICLE 5 INDIVIDUAL RIGHTS OF WORKING INTEREST OWNERS

5.1 Reservation of Rights. Working Interest Owners severally reserve to themselves all their rights, except as otherwise provided in this Agreement and the Unit Agreement.

5.2 Specific Rights. Each Working Interest Owner shall have, among others, the following specific rights:

5.2.1 Access to Unit Area. Access to the Unit Area at all reasonable times to inspect Unit Operations, all wells, and the records and data pertaining thereto.

5.2.2 Reports. The right to receive from Unit Operator copies of all reports to any governmental agency, reports of crude oil runs and stocks, inventory reports, and all other information pertaining to Unit

Operations. The cost of gathering and furnishing information not ordinarily furnished by Unit Operator to all Working Interest Owners shall be charged to the Working Interest Owner who requests the information.

ARTICLE 6 UNIT OPERATOR

6.1 Unit Operator. Hanson Operating Company, Inc. is hereby designated as Unit Operator.

6.2 Resignation or Removal. Unit Operator may resign at any time by giving notice thereof in writing to Working Interest Owners. Working Interest Owners may remove Unit Operator if it fails or refuses to carry out its duties hereunder or files bankruptcy by the affirmative vote of at least sixty-five percent (65%) of the voting interest remaining after excluding the voting interest of Unit Operator. Such resignation or removal shall not become effective until three (3) months after the resignation or discharge, unless a successor Unit Operator has taken over Unit Operations prior to the expiration of such period.

6.3 Selection of Successor. Upon the resignation or removal of a Unit Operator, a successor Unit Operator shall be selected by Working Interest Owners. If the Unit Operator that is removed fails to vote or votes only to succeed itself, the successor Unit Operator may be selected by the affirmative vote of at least sixty-five percent (65%) of the voting interest remaining after excluding the voting interest of the Unit Operator that was removed.

ARTICLE 7 AUTHORITIES AND DUTIES OF UNIT OPERATOR

7.1 Exclusive Right to Operate Unit. Subject to the provisions of this Agreement and to instructions from Working Interest Owners, Unit Operator shall have the exclusive right and be obligated to conduct Unit Operations.

7.2 Workmanlike Conduct. Unit Operator shall conduct Unit Operations in good and workmanlike manner as would a prudent operator under the same or similar circumstances. Unit Operator shall freely consult with Working Interest Owners and keep them informed of all matters which Unit Operator, in the exercise of its best judgment, considers important. Unit Operator shall not be liable to Working Interest Owners for losses sustained, liabilities incurred, or damages, unless such result from its gross negligence or willful misconduct.

7.3 Liens and Encumbrances. Unit Operator shall endeavor to keep the lands and leases in the Unit Area free from all liens and encumbrances occasioned by Unit Operations, except the lien granted hereunder.

7.4 Employees. The number of employees used by Unit Operator in conducting Unit Operations, their selection, hours of labor, and compensation shall be determined by Unit Operator. Such employees shall be the employees of Unit Operator.

7.5 Records. Unit Operator shall keep accurate and complete books, accounts, and records of Unit Operations.

7.6 Reports to Working Interest Owners. Unit Operator shall furnish to Working Interest Owners periodic reports of Unit Operations.

7.7 Reports to Governmental Authorities. Unit Operator shall make all reports to governmental authorities that it has the duty to make as Unit Operator.

7.8 Engineering and Geological Information. Unit Operator shall furnish to a Working Interest Owner, upon written request, a copy of the log and other engineering and geological data pertaining to wells drilled for Unit Operations.

7.9 Expenditures. Unit Operator is authorized to make single expenditures not in excess of Fifty Thousand Dollars (\$50,000.00) without prior approval of Working Interest Owners. If an emergency occurs, Unit Operator may

immediately make or incur such expenditures as in its opinion are required to deal with the emergency. Unit Operator shall report to Working Interest Owners, as promptly as possible, the nature of the emergency and the action taken.

7.10 Wells Drilled by Unit Operator. All wells drilled by Unit Operator shall be at the usual rates prevailing in the area. Unit Operator may employ its own tools and equipment, but the charge therefor shall not exceed the prevailing rate in the area, and the work shall be performed by Unit Operator under the same terms and conditions as are usual in the area in contracts of independent contractors doing work of a similar nature.

ARTICLE 8 TAXES

8.1 Ad Valorem Taxes. Unit Operator shall make and file all necessary ad valorem tax renditions and returns with the proper taxing authorities covering all real and personal property of each Working Interest Owner used or held by Unit Operator in Unit Operations. Unit Operator shall settle assessments arising therefrom. All such ad valorem taxes shall be paid by Unit Operator and charged to the joint account.

8.2 Other Taxes. Each Working Interest Owner shall pay or cause to be paid all production, severance, gathering, and other taxes imposed upon or in respect to the production or handling of its share of Unitized Substances.

ARTICLE 9 INSURANCE

9.1 Insurance. Unit Operator, with respect to Unit Operations, shall do the following:

9.1.1 Carry Workmen's Compensation insurance in accordance with the Laws of the State of New Mexico.

9.1.2 Unit Operator shall carry insurance for the joint account of the parties hereto. Any party may, at its own expense, acquire such insurance as it deems proper to protect itself against any claims, losses, damages or destruction resulting from Unit Operations. The insurance provided by Unit Operator is attached as Exhibit D.

9.1.3 Unit Operator shall require all contractors engaged in work in or on the Unit Area to carry insurance for the benefit and protection of the Working Interest Owners consistent with Unit Operator's minimum requirements.

ARTICLE 10 ADJUSTMENT OF INVESTMENTS

10.1 Personal Property Taken Over. Upon the Effective Date hereof, Working Interest Owners shall deliver to Unit Operator the following:

10.1.1 Wells and Casing. All wells located within the Unit Area, together with the casing therein.

10.1.2 Well and Lease Equipment. The tubing in each such well, the wellhead connections thereon, and all other lease and operating equipment that is used in the operation of such wells which Working Interest Owners determine is necessary or desirable for conducting Unit Operations.

10.1.3 Records. A copy of all production and well records that pertain to such wells.

Execution or ratification of this Agreement by Working Interest Owners signifies granting of such interest upon the Effective Date, subject to Section 10.5 below.

10.2 Inventory and Evaluation of Personal Property. Working Interest Owners shall, at Unit Expense, inventory and evaluate, in accordance with the provisions of Exhibit C, the personal property taken over.

10.3 Investment Adjustment. Upon approval by Working Interest Owners of the inventory and evaluation, each Working Interest Owner shall be credited with the value of its interest in all personal property taken over under Section 10.1.2, and shall be charged with an amount equal to that obtained by multiplying the total value of all personal property taken over under Section 10.1.2 by such Working Interest Owner's Unit Participation. If the charge against any Working Interest Owner is greater than the amount credited to such Working Interest Owner, the resulting net charge shall be an item of Unit Expense chargeable against such Working Interest Owner. If the credit to any Working Interest Owner is greater than the amount charged against such Working Interest Owner, the resulting net credit shall be paid to such Working Interest Owner by Unit Operator out of funds received by it in settlement of the net charges described above or reflected as a credit on such Working Interest Owner's account.

10.4 General Facilities. The acquisition of warehouses, warehouse stocks, lease houses, camps, facility systems, and office buildings necessary for Unit Operations shall be by negotiation by the owners thereof and Unit Operator, subject to the approval of Working Interest Owners.

10.5 Ownership of Personal Property and Facilities. Each Working Interest Owner, individually, shall by virtue hereof own an undivided interest, equal to its Unit Participation, in all personal property and facilities taken over or otherwise acquired by Unit Operator pursuant to this Agreement.

ARTICLE 11 UNIT EXPENSE

11.1 Basis of Charge to Working Interest Owners. Unit Operator initially shall pay all Unit Expense. All charges, credits and accounting for Unit Expense shall be in accordance with Exhibit C. Each Working Interest Owner shall reimburse the Unit Operator for its share of Unit Expense as follows:

11.1.1 Beginning at 7:00 o'clock a.m. on the Effective Date hereof, all operating expenses shall be shared by Working Interest Owners in accordance with their applicable Unit Participation which is in effect at the time such expense is incurred.

11.2 Budgets. Before or as soon as practical after the Effective Date hereof, Unit Operator shall prepare a budget of estimated Unit Expenses for the remainder of the calendar year, and, on or before the first day of each February thereafter, shall prepare such budget for the ensuing calendar year. A budget shall set forth the estimated Unit Expense by quarterly periods. Budgets shall be estimates only, and shall be adjusted or corrected by Working Interest Owners and Unit Operator whenever an adjustment or correction is proper. A copy of each budget and adjusted budget shall promptly be furnished to each Working Interest Owner.

11.3 Advance Billings. Unit Operator shall have the right to require Working Interest Owners to advance their respective shares of estimated Unit Expense by submitting to Working Interest Owners, on or before the 15th day of any month, an itemized estimate thereof for the succeeding month, with a request for payment in advance. Within fifteen (15) days thereafter, each Working Interest Owner shall pay to Unit Operator its share of such estimate. Adjustments between estimated and actual Unit Expense shall be made by Unit Operator at the close of each calendar month, and the accounts of Working Interest Owners shall be adjusted accordingly.

11.4 Commingling of Funds. No funds received by Unit Operator under this Agreement need to be segregated or maintained by it as a separate fund, but may be commingled with its own funds.

11.5 Lien of Unit Operator Penalty. Each Non-Operator grants to Operator a lien upon its oil and gas rights in the Contract Area, and a security interest in its share of oil and/or gas when extracted and its interest in all equipment, to secure payment of its share of expense, together with interest thereon at the rate provided in Exhibit C. To the extent that Operator has a security interest under the Uniform Commercial Code of the state, Operator shall be entitled to exercise the rights and remedies of a secured party under the Code. The bringing of a suit and the obtaining of judgment by Operator for the secured indebtedness shall not be deemed an election of remedies or otherwise affect the lien rights or security interest as security for the payment thereof. In addition, upon default by any Non-Operator in the payment of its share of expense, Operator shall have the right, without prejudice to other rights or remedies, to collect from the purchaser the proceeds from the sale of such Non-Operator's share of oil and/or gas until the amount owed by such Non-

Operator, together with a penalty of 200% of such Non-Operator's proportionate share of expenses plus interest has been paid. Each purchaser shall be entitled to rely upon Operator's written statement concerning the amount of any default. Operator grants a like lien and security interest to the Non-Operators to secure payment of Operator's proportionate share of expense.

By execution or ratification of this Agreement, Working Interest Owners authorize the recording and filing of Exhibit F giving notice of the lien rights and security interest set forth above.

11.6 Unpaid Unit Expense. If any Working Interest Owner fails to pay its share of Unit Expense within sixty (60) days after rendition of a statement therefor by Unit Operator, each Working Interest Owner agrees, upon request by Unit Operator, to pay its proportionate part of the unpaid share of Unit Expense of the defaulting Working Interest Owner. The Working Interest Owners that pay the share of Unit Expense of a defaulting Working Interest Owner shall be reimbursed by the Unit Operator for the amount so paid, plus any interest and/or penalty collected thereon, upon receipt by Unit Operator of any past due amount collected from the defaulting Working Interest Owner. Any Working Interest Owner so paying a defaulting Working Interest Owner's share of Unit Expense shall be subrogated to the lien and rights herein granted Unit Operator.

11.7 Uncommitted Royalty. Should an owner of a Royalty Interest in any Tract fail to become a party to the Unit Agreement, and, as a result thereof, the actual Royalty Interest payments with respect to such Tract are more or less than the Royalty Interest payments computed on the basis of the Unitized Substances that are allocated to such Tract under the Unit Agreement, the difference shall be borne by or inure to the benefit of Working Interest Owners in proportion to their respective Unit Participation; provided, however, that in the event a Tract is qualified as a result of the execution of the indemnity provided by Section 9.1.2 of the Unit Agreement, the Working Interest Owner executing such indemnity shall bear the burden or take the benefits of such differences in royalty payments in the same proportion and to the same extent that such Working Interest is obligated by such indemnity with respect to the claims and demands referred to in said Section 9.1.2.

ARTICLE 12 NON-UNITIZED FORMATIONS

12.1 Right to Operate. Any Working Interest Owner that now has or hereafter acquires the right to drill for and produce oil, gas, or other minerals from other than the Unitized Formation, shall have the right to do so notwithstanding this Agreement or the Unit Agreement. In exercising the right, however, the Working Interest Owner shall exercise reasonable precaution to prevent unreasonable interference with Unit Operations. No Working Interest Owners shall produce Unitized Substances through any well drilled or operated by it. If any Working Interest Owner drills any well into or through the Unitized Formation, the Unitized Formation shall be protected in a manner satisfactory to Working Interest Owners so that the production of Unitized Substances will not adversely be affected.

ARTICLE 13 TITLES

13.1 Warranty and Indemnity. Each Working Interest Owner represents and warrants that it is the owner of the respective working interests set forth opposite its name in Exhibit A, and hereby agrees to indemnify and hold harmless the other Working Interest Owners for any loss due to failure, in whole or in part, of its title to any such interest except failure of title arising out of Unit Operations; provided that such indemnity shall be limited to an amount equal to the net value that has been received from the sale or receipt of Unitized Substances attributed to the interest as to which title failed. Each failure of title will be deemed to be effective, insofar as this Agreement is concerned, as of the first day of the calendar month in which such failure is finally determined, and there shall be no retroactive adjustment of Unit Expense, or retroactive allocation of Unitized Substances or the proceeds therefrom, as a result of title failure.

13.2 Failure Because of Unit Operations. The failure of title to any working interest in any Tract by reason of Unit Operations, including non-production from such Tract, shall not change the Unit Participation of the Working Interest Owner whose title failed in relation to the Unit Participation of the other Working Interest Owners at the time of the title failure.

13.3 Waiver of Right to Partition. Each Lessee and Working Interest Owner hereto agrees that, during the existence of this Agreement, it will not resort to any action to partition the interval of the Unitized Formation hereunder or the Unit Equipment, and to that extent waives the benefits of all laws authorizing such partition.

13.4 Notice of Transfer of Title. No change of title shall be binding on the Unit or Unit Operator until the first day of the calendar month next succeeding the date of receipt by Unit Operator of evidence, satisfactory to it, of such change of ownership. Each such transfer, assignment or conveyance, whether so stating or not, shall operate to impose upon the party or parties acquiring such interest the obligation of the predecessor in interest with respect to the interest so transferred and shall likewise operate to give and grant to the party or parties acquiring such interest all benefits attributable hereunder to such interest.

ARTICLE 14 LIABILITY, CLAIMS, AND SUITS

14.1 Individual Liability. The duties, obligations, and liabilities of Working Interest Owners shall be several and not joint or collective; and nothing herein contained shall ever be construed as creating a partnership of any kind, joint venture, association, or trust among Working Interest Owners.

14.2 Settlements. Unit Operator may settle any single damage claim or suit involving Unit Operations but not involving an expenditure in excess of Ten Thousand Dollars (\$10,000.00); provided the payment is in complete settlement of such claim or suit. If the amount required for settlement exceeds the above-specified amount, Working Interest Owners shall assume and take over the further handling of the claim or suit unless such authority is expressly delegated to Unit Operator. All costs and expense of handling, settling, or otherwise discharging such claim or suit shall be an item of Unit Expense. If a claim is made against any Working Interest Owner or if any Working Interest Owner is sued on account of any matter arising from Unit Operations and over which such Working Interest Owner individually has no control because of the rights given Working Interest Owners and Unit Operator by this Agreement and the Unit Agreement, the Working Interest Owner shall immediately notify the Unit Operator, and the claim or suit shall be treated as any other claim or suit involving Unit Operations.

14.3 Force Majeure. Any obligation imposed by this Agreement on each party, except for the payment of money, shall be suspended while compliance therewith is prevented, in whole or in part, by a strike, fire, war, civil disturbance, act of God; by Federal, state or municipal laws; by any rule, regulation or order of a governmental agency; by inability to secure materials or by any other cause beyond the reasonable control of such party. No party shall be required against its will to adjust or settle any labor dispute. Neither this Agreement nor any lease or other instrument subject hereto shall be terminated by reason of the suspension of Unit Operations due to any of the causes set forth in this Section.

ARTICLE 15 INTERNAL REVENUE PROVISION

15.1 Internal Revenue Provision. Each Working Interest Owner hereby elects that it and the operations covered by this Agreement be excluded from the application of Subchapter K of Chapter 1 of Sub-title A of the Internal Revenue Code of 1954, or such portion thereof as the Secretary of Treasury of the United States or his delegate shall permit by election to be excluded therefrom. Unit Operator is hereby authorized and directed to execute on behalf of each Working Interest Owner such additional or further evidence of the election as may be required by regulations issued under said Subchapter K. Should the regulations require each party to execute such further evidence, each Working Interest Owner agrees to execute or join in the execution thereof. The election hereby made and the other provisions of this paragraph shall apply in like manner to applicable state laws, regulations, and rulings now in effect or hereafter enacted that have an effect similar to the federal provisions referred to herein.

**ARTICLE 16
NOTICES**

16.1 Notices. All notices required hereunder shall be in writing and shall be deemed to have been properly served when sent by mail, telegram, or telefax to the address of the representative of each Working Interest Owner as furnished to Unit Operator in accordance with Article 4 hereof.

**ARTICLE 17
WITHDRAWAL OF WORKING INTEREST OWNER**

17.1 Withdrawal. A Working Interest Owner may withdraw from this Agreement by transferring, without warranty of title, either express or implied, to the other Working Interest Owners who do not desire to withdraw, all of its Oil and Gas Rights, together with its interest in all Unit Equipment, and in all wells used in Unit Operations. Such transfer shall not relieve said Working Interest Owner from any obligation or liability incurred prior to the date of delivery of the transfer, which delivery may be made to Unit Operator as Agent for the transferees. The interest transferred shall be owned by the transferees in proportion to their respective Unit Participation. The transferees, in proportion to the respective interests so acquired, shall pay transferor for its interest in Unit Equipment, the fair salvage value thereof as estimated and fixed by Working Interest Owners, less the cost of abandoning said wells. Should the cost to abandon be greater than the salvage value, then the party desiring to withdraw shall pay the difference to the Unit Operator at such time as the assignment is delivered. After the date of delivery of the transfer, the withdrawing Working Interest Owner shall be relieved from all further obligations and liability hereunder and under the Unit Agreement, and the rights of such Working Interest Owner hereunder and under the Unit Agreement shall cease insofar as they existed by virtue of the interest transferred.

17.2 Limitation on Withdrawal. Notwithstanding anything set forth in Article 17.1, Working Interest Owners may refuse to permit withdrawal of a Working Interest Owner if its working interest is burdened by any royalties, overriding royalties, production payments, net proceeds interest, carried working interest, or any other interest created out of the working interest which cumulatively total in excess of one-fourth of such interest, or if such working interest is burdened by liens, security interest or other obligations, unless the other Working Interest Owners willing to accept the Assignment agree to accept the working interest subject to such burdens.

**ARTICLE 18
ABANDONMENT OF WELLS**

18.1 Rights of Former Owners. If Working Interest Owners decide to abandon permanently any well within the Unit Area prior to termination of the Unit Agreement, Unit Operator shall give written notice thereof to the Working Interest Owners of the Tract on which the well is located and they shall have the option for a period of ninety (90) days after the sending of such notice to notify Unit Operator in writing of their election to take over and own said well. Within ten (10) days after the Working Interest Owners of the Tract have notified Unit Operator of their election to take over the well, they shall pay Unit Operator, for credit to the joint account, the amount estimated by Working Interest Owners to be the net salvage value of the casing and equipment in and on the well. The Working Interest Owners of the Tract, by taking over the well, agree to seal off effectively and protect the Unitized Formation, and, upon abandonment, to plug the well in compliance with applicable laws and regulations.

18.2 Plugging. If the Working Interest Owners of a Tract do not elect to take over the well located thereon which is proposed for abandonment, Unit Operator shall plug and abandon the well in compliance with applicable laws and regulations.

**ARTICLE 19
EFFECTIVE DATE AND TERM**

19.1 Effective Date. This Agreement shall become effective on the date and at the time that the Unit Agreement becomes effective.

19.2 Term. This Agreement shall continue in effect so long as the Unit Agreement remains in effect, and thereafter until (a) all unit wells have been abandoned and plugged or turned over to Working Interest Owners in accordance with Article 20 hereof; (b) all Unit Equipment and real property acquired for the joint account have been disposed of by Unit Operator in accordance with instructions of Working Interest Owners; and (c) there has been a final accounting.

ARTICLE 20 ABANDONMENT OF OPERATIONS

20.1 Termination. Upon termination of the Unit Agreement, the following will occur:

20.1.1 Oil and Gas Rights. Oil and Gas Rights in and to each separate Tract shall not longer be affected by this Agreement, and thereafter the parties shall be governed by the terms and provisions of the leases, contracts, and other instruments affecting the separate Tracts.

20.1.2 Right to Operate. Working Interest Owners of any Tract that desire to take over and continue to operate wells located thereon may do so by paying Unit Operator, for credit to the joint account, the net salvage value of the casing and equipment in and on the wells taken over as estimated by Working Interest Owners and by agreeing to plug properly each well at such time as it is abandoned.

20.1.3 Salvaging Wells. Unit Operator shall salvage as much of the casing and equipment in or on wells not taken over by Working Interest Owners of separate Tracts as can economically and reasonably be salvaged, and shall cause the same to be plugged and abandoned properly.

20.1.4 Cost of Salvaging. Working Interest Owners shall share the cost of salvaging, liquidation or other distribution of assets and properties used in Unit Operating in proportion to their respective Unit Participation.

20.1.5 Distribution of Assets. Working Interest Owners shall share in the distribution of Unit Equipment, or the proceeds thereof, in proportion to their Unit Participations.

ARTICLE 21 LAWS, REGULATIONS, AND CERTIFICATE OF COMPLIANCE

21.1 Laws and Regulations. This Agreement and operations hereunder are subject to all valid laws and valid rules, regulations, and orders of all regulatory bodies having jurisdiction and to all other applicable federal, state, and local laws, ordinances, rules, regulations, and orders; and any provision of this Agreement found to be contrary to or inconsistent with any such law, ordinance, rule, regulation, or order shall be deemed modified accordingly.

21.2 Certificate of Compliance. In the performance of work under this Agreement, the parties agree to comply and Unit Operator shall endeavor to require each independent contractor to comply with the provisions of Exhibit E.

ARTICLE 22 EXECUTION

22.1 Original Counterpart, or Other Instrument. A party may become a party to this Agreement by signing the original of this instrument, a counterpart thereof, or other instrument agreeing to be bound by the provisions hereof. The signing of any such instrument shall have the same effect as if all the parties had signed the same instrument.

**ARTICLE 23
SUCCESSORS AND ASSIGNS**

23.0.1 Successors and Assigns. The provision hereof shall be covenants running with the lands, leases, and interests covered hereby and shall be binding upon and inure to the benefit of the representative heirs, devisees, legal representatives, successors, and assigns of the parties hereto.

23.1 Four or More Owners. In the event any interest subject to this Agreement is owned or hereafter becomes owned by four or more Working Interest Owners, then, and in such event, said Working Interest Owners agree to furnish Unit Operator with a recordable instrument executed by all such Working Interest Owners designating an agent to receive and be responsible for all costs, expenses, and credits related to Unit Operation and attributable to all such Working Interest Owners.

IN WITNESS WHEREOF, the parties hereto have executed this agreement on the dates opposite their respective signatures.

WORKING INTEREST OWNERS

DATE: _____

HANSON OPERATING COMPANY, INC.

ATTEST:

Secretary-Treasurer

By: _____
Ray Willis, Vice-President
Management & Finance

STATE OF NEW MEXICO

COUNTY OF CHAVES

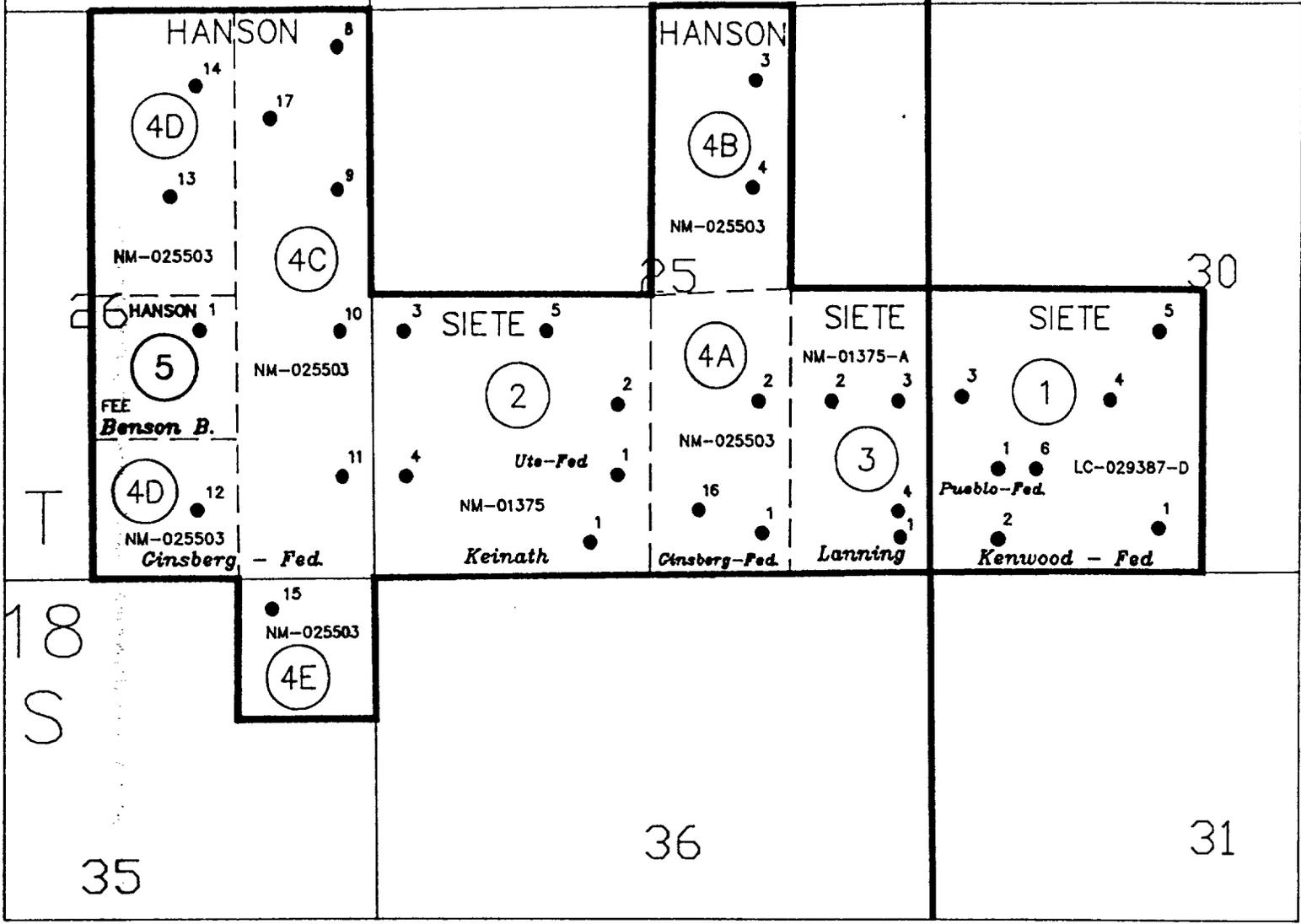
The foregoing instrument was acknowledged before me this ___ day of _____, 1993, by RAY WILLIS, Vice-President, Management & Finance, for HANSON OPERATING COMPANY, INC., a New Mexico corporation, on behalf of said corporation.

Notary Public

My Commission expires:

R 30 E

R 31 E



UNIT AREA BOUNDARY

② TRACT NUMBER

ACRES PERCENTAGE

STATE LAND	-0-	0%
FEDERAL LAND	871	95.6%
FEE LAND	40	4.4%
TOTAL	911	100.0%

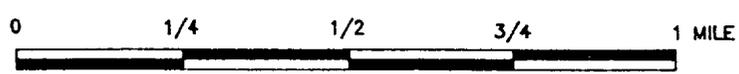
HANSON OPERATING COMPANY, INC.

BENSON SHUGART WATERFLOOD UNIT AREA PLAT

HANSON - SIETE - MANZANO

SHUGART FIELD
EDDY COUNTY, NEW MEXICO

EXHIBIT A



SCALE

**EXHIBIT B
TO UNIT AGREEMENT
BENSON SHUGART WATERFLOOD UNIT
Eddy County, New Mexico**

TRACT	LEGAL DESCRIPTION	NUMBER OF ACRES	SERIAL NO. & EXPIRATION DATE OF LEASE	GRAND ROYALTY OWNER & PERCENTAGE	LEASE OF RECORD	OVERSIDE ROYALTY PERCENTAGE	WORKING INTEREST OWNER	PERCENTAGE
TRACT 1	T188 R31 E. SEC. 26; Law 3 & 4 (W/28W1/4, E/28W1/4)	151.00	LC-02087(6) Held by Production	United States - 1/8	T. R. Parker Estate - 27% Canadian Farmwood Company - 73%	12.500000%	Manzano Oil Corporation Sole Oil & Gas Corporation MedRide Oil & Gas Corporation	33.330000% 33.340000% 33.330000%
TRACT 2	T188 R06E SEC. 26; SW1/4	160.00	NM-01375 Held by Production	United States - 1/8	Manzano Oil Corporation - 100%	6.250000%	MedRide Oil & Gas Corporation Sole Oil & Gas Corporation Manzano Oil Corporation	33.330000% 33.330000% 33.340000%
TRACT 3	T188 R06E SEC. 26; E/28W1/4	80.00	NM-01375-A Held by Production	United States - 1/8	Manzano Oil Corporation - 100%	6.250000%	MedRide Oil & Gas Corporation Sole Oil & Gas Corporation Manzano Oil Corporation	33.330000% 33.330000% 33.340000%
TRACT 4A	T188 R06E SEC. 26; W/28W1/4	80.00	NM-025603 Held by Production	United States - 1/8	MedRide Oil & Gas Corporation - 100%	2.500000%	Hanson-MedRide Petroleum Company, a New Mexico Limited Partnership Thomas R. Loffland & Barbara Loffland Middlen, Co-Trustees of the Margaret R. Loffland Trust Barbara Loffland Middlen Tom R. Loffland Samuel S. Spomer MedRide Oil & Gas Corporation	22.500000% 5.000000% 5.000000% 12.500000% 59.000000%
TRACT 4B	T188 R06E SEC. 26; W/28W1/4	80.00	NM-025603 Held by Production	United States - 1/8	MedRide Oil & Gas Corporation - 100%	2.500000%	Hanson-MedRide Petroleum Company, a New Mexico Limited Partnership Thomas R. Loffland & Barbara Loffland Middlen, Co-Trustees of the Margaret R. Loffland Trust Barbara Loffland Middlen Tom R. Loffland Samuel S. Spomer MedRide Oil & Gas Corporation	22.500000% 5.000000% 5.000000% 12.500000% 59.000000%
TRACT 4C	T188 R06E SEC. 26; E/28W1/4	160.00	NM-025603 Held by Production	United States - 1/8	MedRide Oil & Gas Corporation - 100%	5.156250%	Hanson-MedRide Petroleum Company, a New Mexico Limited Partnership Hanson Operating Company, Inc. Raegan S. Sweet Babe Development Co., Inc. MedRide Oil & Gas Corporation	10.416250% 2.081250% 2.081250% 25.000000% 60.416250%
TRACT 4D	T188 R06E SEC. 26; W/28W1/4, SW1/4SE1/4	120.00	NM-025603 Held by Production	United States - 1/8	MedRide Oil & Gas Corporation - 100%	5.156250%	Hanson-MedRide Petroleum Company, a New Mexico Limited Partnership Hanson Operating Company, Inc. Raegan S. Sweet Grover N. Strader Hilo Development Company, a Limited Partnership MedRide Oil & Gas Corporation	5.080625% 1.018949% 1.018949% 18.287455% 19.488745% 55.080625%
TRACT 4E	T188 R06E SEC. 26; NE1/4NW1/4	40.00	NM-025603 Held by Production	United States - 1/8	MedRide Oil & Gas Corporation - 100%	2.500000%	MedRide Oil & Gas Corporation Hanson-MedRide Petroleum Company, a New Mexico Limited Partnership	10.000000% 90.000000%
TOTAL FEDERAL ACREAGE		871.00	or 95.0%					

TRACT	LEGAL DESCRIPTION	NUMBER OF ACRES	SERIAL NO. & EXPIRATION DATE OF LEASE	BASED ROYALTY OWNERS & PERCENTAGE	LESSEE OF RECORD	OVERSIGHT ROYALTY PERCENTAGE	WORKING INTEREST OWNER	PERCENTAGE
TRACT 5	T18N,R30E,SEC 28,N44W,E8/4	40.00	No Serial Number Held by Production	Donald E. Shulmer Testamentary Trust Trustees are Pamela B. Link and J. E. Cleaveland 1/2 of 1/8 Pecos Abstract Company 1/2 of 1/8	Donald E. Shulmer - 100%	None	McGills Oil & Gas Corporation Hesson-McGills Petroleum Company, a New Mexico Limited Partnership Hesson Operating Company, Inc. Reagan S. Street	70.632500% 20.822500% 4.187500% 4.187500%
TOTAL FEE ACRESAGE:		40.00	or 4.4%					

• Schedule "D" ending—acre royalty ranging from 12-1/2% to 22-1/2% on oil and from 12-1/2% to 18-3/4% on gas, but for the purposes of this schedule assumed to be 12.8%

RECAPITULATION	
871 Acres of Federal Land:	95.6%
40 Acres of Fee Land:	4.4%
911 Acres	100.0%

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BENSON SHUGART WATERFLOOD UNIT

TRACT	LEGAL DESCRIPTION	WELLS	INTEREST OWNER	CALCULATION OF INTEREST	TRACT INTEREST	TRACT FACTOR	NET REVENUE UNIT PARTICIPATION	GROSS UNIT PARTICIPATION	TYPE OF INTEREST		
TRACT 1	Township 18 South, Range 31 East, Map 14 SECTION 30: Line 3 and 4 (W/2SW1/4), E2SW1/4		Homewood Fed #1 (S/2SW)	United States of America	12.5%	0.12500000	0.00000000	0.00000000	RI		
			Homewood Fed #2 (S/2SW)	William O. Parker, Nancy Parker Strong and Sylvia S. Voorhis, Trustees of the Testamentary Trusts created under Article V of the Last Will and Testament of T. R. Parker, Deceased	3.375%	0.03375000	0.01904089	0.00044203	0.00044203	RI	
			Homewood Fed #4 (N/2SW)	Canadian Kennecott Company, a Minnesota Limited Partnership	8.125%	0.08125000	0.01904089	0.00173748	0.00834834	WI	
			Homewood Fed #5 (N/2SW)	Minnesota Oil Corporation	33.33% X 75%	0.24997500	0.01904089	0.00475878	0.00834834	WI	
			Homewood Fed #6 (S/2SW)	Michigan Oil & Gas Corporation	33.33% X 75%	0.24997500	0.01904089	0.00475878	0.00834834	WI	
			Public Fed #1	Shue Oil & Gas Corporation	33.33% X 75%	0.25002500	0.01904089	0.00475878	0.00834834	WI	
TOTAL TRACT 1:					1.00000000	0.01904089	0.01904089	0.01904089			
TRACT 2	Township 18 South, Range 30 East, Map 14 SECTION 28: SW1/4		Homewood Fed #1	United States of America	12.5%	0.12500000	0.02467549	0.00000000	RI		
			Homewood Fed #2	Barbara Kruse Frobenius, married dealing in her sole & separate prop.	0.88444%	0.00884444	0.01974566	0.00137108	0.00834834	WI	
			Homewood Fed #3	Barbara Kruse Frobenius, married dealing in her sole & separate prop.	0.88444%	0.00884444	0.01974566	0.00137108	0.00834834	WI	
			Homewood Fed #4	Barbara Kruse Frobenius, married dealing in her sole & separate prop.	0.88444%	0.00884444	0.01974566	0.00137108	0.00834834	WI	
			Homewood Fed #5	Barbara Kruse Frobenius, married dealing in her sole & separate prop.	0.88444%	0.00884444	0.01974566	0.00137108	0.00834834	WI	
			Ute Federal #1	Queen Lynn Terry, married dealing in her sole & separate property	0.88444%	0.00884444	0.01974566	0.00137108	0.00834834	WI	
				Mr. Karl Hegeler, married dealing in her sole & separate property	(1/2 of 1/4 of 0.0082083)	0.0008104	0.01974566	0.00012864	0.00834834	WI	
				Mrs. Karl Hegeler, married dealing in her sole & separate property	(1/2 of 1/4 of 0.0082083)	0.0008104	0.01974566	0.00012864	0.00834834	WI	
				First Baptist Church of Arvada	(1/4 of 0.0082083)	0.00130208	0.01974566	0.00028708	0.00834834	WI	
				Immanuel Lutheran Church of Arvada	(1/4 of 0.0082083)	0.00130208	0.01974566	0.00028708	0.00834834	WI	
TOTAL TRACT 2:					1.00000000	0.1974566	0.1974566	0.1974566			
TRACT 3	Township 18 South, Range 30 East, Map 14 SECTION 25: E2SE1/4		United States of America	12.5%	0.12500000	0.02467549	0.00000000	0.00000000	RI		
			Barbara Kruse Frobenius, married dealing in her sole & separate prop.	0.88444%	0.00884444	0.02394598	0.00037386	0.00834834	WI		
			Barbara Kruse Frobenius, married dealing in her sole & separate prop.	0.88444%	0.00884444	0.02394598	0.00037386	0.00834834	WI		
			Queen Lynn Terry, married dealing in her sole & separate property	0.88444%	0.00884444	0.02394598	0.00037386	0.00834834	WI		
			Queen Lynn Terry, married dealing in her sole & separate property	0.88444%	0.00884444	0.02394598	0.00037386	0.00834834	WI		
			Mr. Karl Hegeler, married dealing in her sole & separate property	(1/2 of 1/4 of 0.0082083)	0.0008104	0.02394598	0.00000804	0.00834834	WI		
			Mrs. Karl Hegeler, married dealing in her sole & separate property	(1/2 of 1/4 of 0.0082083)	0.0008104	0.02394598	0.00000804	0.00834834	WI		
			First Baptist Church of Arvada	(1/4 of 0.0082083)	0.00130208	0.02394598	0.00007012	0.00834834	WI		
			Immanuel Lutheran Church of Arvada	(1/4 of 0.0082083)	0.00130208	0.02394598	0.00007012	0.00834834	WI		
			St. Paul's Protestant Episcopal Church of Arvada	(1/4 of 0.0082083)	0.00130208	0.02394598	0.00007012	0.00834834	WI		
TOTAL TRACT 3:					1.00000000	0.02394598	0.02394598	0.02394598			

TRACT	LEGAL DESCRIPTION	WELLS	INTEREST OWNERS	CALCULATION OF INTEREST	TRACT INTEREST	TRACT FACTOR	NET REVENUE UNIT PARTICIPATION	GROSS UNIT PARTICIPATION	TYPE OF INTEREST
TRACT 4A	Township 18 South, Range 30 East, MAPPA SECTION 28, W/2NE/4	Ginsberg Fed 1 (NW/4NE/4) Ginsberg Fed 2 (NW/4SE/4) Ginsberg Fed 16 (SW/4SE/4)	United States of America Anne R. Hyman & Lynne H. Drazil, joint Ruth Block, separate Mary Louise Scott, separate Barbara Stubbins, separate Sabo Development Co., Inc. Hanson-Midrich Petroleum Company, a New Mexico Limited Partnership Thomas R. Lortford & Barbara Lortford Middletown, Co-Trustees of the Margaret R. Lortford Trust Barbara Lortford Middletown Tom R. Lortford Samuel S. Spencer McBride Oil & Gas Corporation	12.9%	0.12900000	0.04786568	0.00081190	0.02028278	WI
				1.25%	0.01250000	0.04786568	0.00044621	0.00749851	WI
				3/4 of 1.25%	0.00375000	0.04786568	0.00044621	0.00749851	WI
				(1/40 of 2.5%) plus (1/40 of 2.5%)	0.00125000	0.04786568	0.00002981	0.00107875	WI
				(1/40 of 2.5%)	0.00025000	0.04786568	0.00002981	0.00107875	WI
				(1/20 of 2.5%)	0.00125000	0.04786568	0.00015208	0.01078751	WI
				(22.5% of 80%)	0.19125000	0.04786568	0.00815208	0.01078751	WI
				(5% of 80%)	0.04250000	0.04786568	0.00202388	0.00284278	WI
				(5% of 80%)	0.04250000	0.04786568	0.00202388	0.00284278	WI
				(12.5% of 80%)	0.10250000	0.04786568	0.00811795	0.00894178	WI
(50% of 80%)	0.42500000	0.04786568	0.02023882	0.02842778	WI				
TOTAL TRACT 4A:				1.00000000	0.04786568	0.04786568			
TRACT 4B	Township 18 South, Range 30 East, MAPPA SECTION 28, W/2NE/4	Ginsberg Fed 3 (NW/4NE/4) Ginsberg Fed 4 (SW/4NE/4)	United States of America Anne R. Hyman & Lynne H. Drazil, joint Ruth Block, separate Mary Louise Scott, separate Barbara Stubbins, separate Sabo Development Co., Inc. Hanson-Midrich Petroleum Company, a New Mexico Limited Partnership Thomas R. Lortford & Barbara Lortford Middletown, Co-Trustees of the Margaret R. Lortford Trust Barbara Lortford Middletown Tom R. Lortford Samuel S. Spencer McBride Oil & Gas Corporation	12.9%	0.12900000	0.10620261	0.01312736	0.00232102	WI
				1.25%	0.01250000	0.10620261	0.00131273	0.00232102	WI
				3/4 of 1.25%	0.00375000	0.10620261	0.00084637	0.00232102	WI
				(1/40 of 2.5%) plus (1/40 of 2.5%)	0.00125000	0.10620261	0.00013127	0.00044621	WI
				(1/40 of 2.5%)	0.00025000	0.10620261	0.00013127	0.00044621	WI
				(1/20 of 2.5%)	0.00125000	0.10620261	0.00013127	0.00044621	WI
				(22.5% of 80%)	0.18125000	0.10620261	0.02029817	0.02029817	WI
				(5% of 80%)	0.04250000	0.10620261	0.00444637	0.00232102	WI
				(5% of 80%)	0.04250000	0.10620261	0.00444637	0.00232102	WI
				(12.5% of 80%)	0.10250000	0.10620261	0.01115843	0.01312736	WI
(50% of 80%)	0.42500000	0.10620261	0.04446337	0.02310225	WI				
TOTAL TRACT 4B:				1.00000000	0.10620261	0.10620261			
TRACT 4C	Township 18 South, Range 30 East, MAPPA SECTION 28, E/2E/2	Ginsberg Fed 8 (NE/4NE/4) Ginsberg Fed 9 (SE/4NE/4) Ginsberg Fed 10 (NE/4SE/4) Ginsberg Fed 11 (SE/4SE/4) Ginsberg Fed 17 (NE/4NE/4)	United States of America Anne R. Hyman & Lynne H. Drazil, joint Ruth Block, separate Mary Louise Scott, separate Barbara Stubbins, separate Sabo Development Co., Inc. Ginsberg Investments Hanson-Midrich Petroleum Company, a New Mexico Limited Partnership Hanson Operating Company, Inc. Hudson B. Sweet & Mary Leibel Sweet, NW Joint Sabo Development Co., Inc. McBride Oil & Gas Corporation	12.9%	0.12900000	0.28686874	0.04446209	0.00749851	WI
				1.25%	0.01250000	0.28686874	0.00444621	0.00749851	WI
				3/4 of 1.25%	0.00375000	0.28686874	0.00337366	0.00749851	WI
				(1/40 of 2.5%) plus (1/40 of 2.5%)	0.00125000	0.28686874	0.00044621	0.00044621	WI
				(1/40 of 2.5%)	0.00025000	0.28686874	0.00022461	0.00044621	WI
				(1/20 of 2.5%)	0.00125000	0.28686874	0.00044621	0.00044621	WI
				2.86823%	0.02868230	0.28686874	0.00084638	0.00749851	WI
				(1/2 of 83.33% of 25% of 82.34375%)	0.08677131	0.28686874	0.00284278	0.00749851	WI
				(1/2 of 16.67% of 25% of 82.34375%)	0.01715628	0.28686874	0.00817468	0.00749851	WI
				(1/2 of 16.67% of 25% of 82.34375%)	0.01715628	0.28686874	0.00817468	0.00749851	WI
(25% of 82.34375%)	0.20686808	0.28686874	0.07407398	0.08464119	WI				
(50% of 82.34375%) plus (1/2 of 83.33% of 25% of 82.34375%)	0.41118178	0.28686874	0.17802316	0.21741195	WI				
TOTAL TRACT 4C:				1.00000000	0.28686874	0.28686874			

TRACT	LEGAL DESCRIPTION	WELL	INTEREST OWNER	CALCULATION OF INTEREST	TRACT INTEREST	TRACT FACTOR	NET REVENUE UNIT PARTICIPATION	GROSS UNIT PARTICIPATION	TYPE OF INTEREST
TRACT 4D	Township 18 South, Range 30 East, Merits SECTION 28: NW/2NE/4, SW/4SE/4	Gleiberg Fed 12 (SW/4SE/4) Gleiberg Fed 13 (SW/4NE/4) Gleiberg Fed 14 (NW/4NE/4)	United States of America	12.5%	0.12500000	0.14226200	0.01778278	0.07837948	WI
			Bernard R. Gleiberg & Mary Hannah Gleiberg, Co-Trustees of the Bernard R. Gleiberg & Mary Hannah Gleiberg Trust under Agreement dated January 24, 1985	1.238125%	0.01238125	0.14226200	0.00188842	0.00188842	WI
			Bernard R. Gleiberg, Trustee of the Madala E. Gleiberg Trust Created under Agreement dated 1/8/85	0.864028%	0.00864028	0.14226200	0.00084471	0.00084471	ORR
			Bernard R. Gleiberg, Trustee of the Benjamin B. Gleiberg Trust under the Last Will and Testament of Benjamin B. Gleiberg dated 6/23/78	0.864028%	0.00864028	0.14226200	0.00084471	0.00084471	ORR
			Arne R. Hyman & Lynn H. Drach, Trustee	1.28%	0.01280000	0.14226200	0.00177828	0.00144843	WI
			Ruth Gluck, separate	3/4 of 1.28%	0.00960750	0.14226200	0.00133371	0.00144843	WI
			Mary Louisa Scott, separate	(1/40 of 2.5%) plus (1/40 of 2.8%)	0.00128000	0.14226200	0.00017783	0.00144843	ORR
			Blanche Sulzhan, separate	(1/40 of 2.5%)	0.00028200	0.14226200	0.00008891	0.00144843	ORR
			Salis Development Co., Inc.	(1/20 of 2.8%)	0.00128000	0.14226200	0.00017783	0.00144843	ORR
			Hanson-MidRide Petroleum Company, a New Mexico Limited Partnership	1/2 of 30.57221% of 50% of 82.34379%	0.04188810	0.14226200	0.00088800	0.00784848	WI
TRACT 4E	Township 18 South, Range 30 East, Merits SECTION 28: NE/4NE/4	Gleiberg Fed 15 (NE/4NE/4)	Hanson Operating Company, Inc.	1/2 of 4.07339% of 50% of 82.34379%	0.00028857	0.14226200	0.00118381	0.00144843	WI
			Rampton S. Sweet & Mary Leland Sweet, New Jersey	1/2 of 4.07339% of 50% of 82.34379%	0.00028857	0.14226200	0.00118381	0.00144843	WI
			Grover R. Strader, marital estate unknown	26.57871% of 50% of 82.34379%	0.15088878	0.14226200	0.02142288	0.02801610	WI
			Hilo Development Company,	28.87748% of 50% of 82.34379%	0.18047783	0.14226200	0.02282887	0.02772508	WI
			a Limited Partnership	50% of 82.34379% plus	0.41171878	0.14226200	0.04482880	0.07837948	WI
			McShride Oil & Gas Corporation	1/2 of 20.57221% of 50% of 82.34379%	0.04118810	0.14226200	0.04482880	0.07837948	WI
			United States of America	12.5%	0.12500000	0.14226200	0.00048888	0.00144843	ORR
			Arne R. Hyman & Lynn H. Drach, Trustee	1.28%	0.01280000	0.14226200	0.00024481	0.00144843	ORR
			Ruth Gluck, separate	3/4 of 1.28%	0.00960750	0.14226200	0.00018611	0.00144843	ORR
			Mary Louisa Scott, separate	(1/40 of 2.5%) plus (1/40 of 2.8%)	0.00128000	0.14226200	0.00002488	0.00144843	ORR
TRACT 5	Township 18 South, Range 30 East, Merits SECTION 28: NW/4SE/4	Benson #1	Blanche Sulzhan, separate	(1/40 of 2.5%)	0.00028200	0.01874482	0.00002488	0.01144819	ORR
			Salis Development Co., Inc.	(1/20 of 2.8%)	0.01874482	0.01874482	0.00002488	0.01144819	ORR
			McShride Oil & Gas Corporation	85.0% x 10.0%	0.08500000	0.01874482	0.00187829	0.00187448	WI
			Hanson-MidRide Petroleum Company	85.0% x 80.0%	0.78500000	0.01874482	0.01510483	0.0177016	WI
			TOTAL TRACT 4E:	1.00000000	0.01874482	0.01874482			
			Donald E. Buckman Testamentary Trust	50% of 12.5%	0.06250000	0.06484429	0.00043338	0.00144843	ORR
			Trustees are Pamela S. Link and J. E. Chastagnol	50% of 12.5%	0.06250000	0.06484429	0.00043338	0.00144843	ORR
			Pecos Absentee Company	50% of 87.5% plus	0.43750000	0.06484429	0.03404741	0.03881135	WI
			McShride Oil & Gas Corporation	50% of 83.33% of 50% of 87.5%	0.18228438	0.06484429	0.01001388	0.01144819	WI
			Hanson-MidRide Petroleum Company, a New Mexico Limited Partnership	50% of 83.33% of 50% of 87.5%	0.18228438	0.06484429	0.01001388	0.01144819	WI
Hanson Operating Company, Inc.	50% of 18.87% of 50% of 87.5%	0.03448582	0.06484429	0.00200322	0.00228888	WI			
Rampton S. Sweet & Mary Leland Sweet, New Jersey	50% of 18.87% of 50% of 87.5%	0.03448582	0.06484429	0.00200322	0.00228888	WI			
TOTAL TRACT 5:	1.00000000	0.06484429	0.06484429						

Schedule "D" - Selling-gas royalty ranging from 12.5-17.2% to 33-17.2% on oil and from 12-17.2% to 16-27.3% on gas, but for the purpose of this schedule assumed to be 12.5%

@Notwithstanding wk1
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BENSON SHUGART WATERFLOOD UNIT UNIT WORKING INTEREST

WORKING INTEREST OWNER	TRACT 1	TRACT 2	TRACT 3	TRACT 4A	TRACT 4B	TRACT 4C	TRACT 4D	TRACT 4E	TRACT 5	UNIT TOTAL
Barbara Loffland Middleton				0.00239278	0.00525103					0.00764381
Grover N. Strader							0.02601610			0.02601610
Hansen Operating Company, Inc.						0.00749851	0.00144948		0.00228939	0.01123723
Hansen-McBride Petroleum Company, a New Mexico Limited Partnership				0.01076751	0.02362961	0.03748358	0.00724648	0.01777016	0.01144419	0.10834053
Hiko Development Company, a Limited Partnership							0.02772808			0.02772808
Manzano Oil Corporation	0.00634634	0.00592515	0.01796338							0.10000000
Siete Oil & Gas Corporation	0.00634625	0.00590540	0.01794800							0.10000000
McBride Oil & Gas Corporation	0.00634634	0.00590540	0.01794800	0.02392778	0.05251025	0.21741195	0.07837848	0.00197448	0.03891133	0.48343851
Raegan S. Sweet						0.00749851	0.00144943		0.00228938	0.01123732
Samuel S. Spencer				0.00598195	0.01312756					0.01910651
Thomas R. Loffland & Barbara Loffland Middleton, Co—Trustees of the Margaret R. Loffland Trust				0.00239278	0.00525103					0.00764381
Tom R. Loffland				0.00239278	0.00525103					0.00764381
Babe Development Co., Inc.						0.08990419				0.08990419
TRACT TOTALS:	0.01904083	0.19743695	0.05384938	0.04785658	0.10502051	0.35985674	0.14226200	0.01974482	0.05493429	1.00000000

* By Agreement dated 1/24/82, Manzano Oil Corporation and Siete Oil & Gas Corporation are to own a 10% Gross Working Interest in the present Unit Area and McBride Oil & Gas Corporation's interest has been decreased in order to solely bear the increased working interest to Manzano and Siete.

07/28/1982, UNIT 1

97.3%

EXHIBIT B-1

TRACT	DESCRIPTION
TRACT 1	Lots 3 and 4 (W/2SW/4), E/2SW/4 Section 30, Township 18 South, Range 31 East, NMPM, containing Manzano Oil Corporation - Kenwood Federal Wells Numbers 1, 2, 3, 4, 5, and 6, and Pueblo Federal Number 1 Well
TRACT 2	SW/4 Section 25, Township 18 South, Range 30 East, NMPM, containing Keinath Federal Number 1, 2, 3, 4, and 5 Wells and Ute Federal Number 1 Well
TRACT 3	E/2SE/4 Section 25, Township 18 South, Range 30 East, NMPM, containing Lanning Federal Number 1, 2, 3, and 4 Wells
TRACT 4A	W/2SE/4 Section 25, Township 18 South, Range 30 East, NMPM, containing Ginsberg Federal Number 1, 2, and 16 Wells
TRACT 4B	W/2NE/4 Section 25, Township 18 South, Range 30 East, NMPM, containing Ginsberg Federal Number 3 and 4 Wells
TRACT 4C	E/2E/2 Section 26, Township 18 South, Range 30 East, NMPM, containing Ginsberg Federal Number 8, 9, 10, 11, and 17 Wells
TRACT 4D	W/2NE/4, SW/4SE/4 Section 26, Township 18 South, Range 30 East, NMPM, containing Ginsberg Federal Number 12, 13, and 14 Wells
TRACT 4E	NE/4NE/4 Section 35, Township 18 South, Range 30 East, NMPM, containing Ginsberg Federal Number 15 Well
TRACT 5	NW/4SE/4 Section 26, Township 18 South, Range 30 East, NMPM, containing Benson "B" #1 Fee Well

dr/oil/hansb1m2agr

EXHIBIT " C "

Attached to and made a part of that certain Unit Operating Agreement dated December 1, 1992
by and between HANSON OPERATING COMPANY, INC. Unit Operator, and SIETE OIL & GAS
CORPORATION, et al, Unit Non-operators.

ACCOUNTING PROCEDURE
JOINT OPERATIONS

I. GENERAL PROVISIONS

1. Definitions

"Joint Property" shall mean the real and personal property subject to the agreement to which this Accounting Procedure is attached.

"Joint Operations" shall mean all operations necessary or proper for the development, operation, protection and maintenance of the Joint Property.

"Joint Account" shall mean the account showing the charges paid and credits received in the conduct of the Joint Operations and which are to be shared by the Parties.

"Operator" shall mean the party designated to conduct the Joint Operations.

"Non-Operators" shall mean the Parties to this agreement other than the Operator.

"Parties" shall mean Operator and Non-Operators.

"First Level Supervisors" shall mean those employees whose primary function in Joint Operations is the direct supervision of other employees and/or contract labor directly employed on the Joint Property in a field operating capacity.

"Technical Employees" shall mean those employees having special and specific engineering, geological or other professional skills, and whose primary function in Joint Operations is the handling of specific operating conditions and problems for the benefit of the Joint Property.

"Personal Expenses" shall mean travel and other reasonable reimbursable expenses of Operator's employees.

"Material" shall mean personal property, equipment or supplies acquired or held for use on the Joint Property.

"Controllable Material" shall mean Material which at the time is so classified in the Material Classification Manual as most recently recommended by the Council of Petroleum Accountants Societies.

2. Statement and Billings

Operator shall bill Non-Operators on or before the last day of each month for their proportionate share of the Joint Account for the preceding month. Such bills will be accompanied by statements which identify the authority for expenditure, lease or facility, and all charges and credits summarized by appropriate classifications of investment and expense except that items of Controllable Material and unusual charges and credits shall be separately identified and fully described in detail.

3. Advances and Payments by Non-Operators

A. Unless otherwise provided for in the agreement, the Operator may require the Non-Operators to advance their share of estimated cash outlay for the succeeding month's operation within ~~thirty (30)~~ ^{thirty (30)} days after receipt of the billing or by the first day of the month for which the advance is required, whichever is later. Operator shall adjust each monthly billing to reflect advances received from the Non-Operators.

B. Each Non-Operator shall pay its proportion of all bills within ~~thirty (30)~~ ^{thirty (30)} days after receipt. If payment is not made within such time, the unpaid balance shall bear interest monthly at the prime rate in effect at Twelve percent (12%) per annum on the first day of the month in which delinquency occurs plus 1% or the maximum contract rate permitted by the applicable usury laws in the state in which the Joint Property is located, whichever is the lesser, plus attorney's fees, court costs, and other costs in connection with the collection of unpaid amounts.

4. Adjustments

Payment of any such bills shall not prejudice the right of any Non-Operator to protest or question the correctness thereof; provided, however, all bills and statements rendered to Non-Operators by Operator during any calendar year shall conclusively be presumed to be true and correct after twenty-four (24) months following the end of any such calendar year, unless within the said twenty-four (24) month period a Non-Operator takes written exception thereto and makes claim on Operator for adjustment. No adjustment favorable to Operator shall be made unless it is made within the same prescribed period. The provisions of this paragraph shall not prevent adjustments resulting from a physical inventory of Controllable Material as provided for in Section V.

6. Audits

- A. A Non-Operator, upon notice in writing to Operator and all other Non-Operators, shall have the right to audit Operator's accounts and records relating to the Joint Account for any calendar year within the twenty-four (24) month period following the end of such calendar year; provided, however, the making of an audit shall not extend the time for the taking of written exception to and the adjustments of accounts as provided for in Paragraph 4 of this Section I. Where there are two or more Non-Operators, the Non-Operators shall make every reasonable effort to conduct a joint audit in a manner which will result in a minimum of inconvenience to the Operator. Operator shall bear no portion of the Non-Operators' audit cost incurred under this paragraph unless agreed to by the Operator. The audits shall not be conducted more than once each year without prior approval of Operator, except upon the resignation or removal of the Operator, and shall be made at the expense of those Non-Operators approving such audit.
- B. The Operator shall reply in writing to an audit report within 180 days after receipt of such report.

6. Approval By Non-Operators

Where an approval or other agreement of the Parties or Non-Operators is expressly required under other sections of this Accounting Procedure and if the agreement to which this Accounting Procedure is attached contains no contrary provisions in regard thereto, Operator shall notify all Non-Operators of the Operator's proposal, and the agreement or approval of a majority in interest of the Non-Operators shall be controlling on all Non-Operators.

II. DIRECT CHARGES

Operator shall charge the Joint Account with the following items:

1. Ecological and Environmental

Costs incurred for the benefit of the Joint Property as a result of governmental or regulatory requirements to satisfy environmental considerations applicable to the Joint Operations. Such costs may include surveys of an ecological or archaeological nature and pollution control procedures as required by applicable laws and regulations.

2. Rentals and Royalties

Lease rentals and royalties paid by Operator for the Joint Operations.

3. Labor

- A. (1) Salaries and wages of Operator's field employees directly employed on the Joint Property in the conduct of Joint Operations.
- (2) Salaries of First Level Supervisors in the field.
- (3) Salaries and wages of Technical Employees directly employed on the Joint Property if such charges are excluded from the overhead rates.
- (4) Salaries and wages of Technical Employees either temporarily or permanently assigned to and directly employed in the operation of the Joint Property if such charges are excluded from the overhead rates.
- B. Operator's cost of holiday, vacation, sickness and disability benefits and other customary allowances paid to employees whose salaries and wages are chargeable to the Joint Account under Paragraph 3A of this Section II. Such costs under this Paragraph 3B may be charged on a "when and as paid basis" or by "percentage assessment" on the amount of salaries and wages chargeable to the Joint Account under Paragraph 3A of this Section II. If percentage assessment is used, the rate shall be based on the Operator's cost experience.
- C. Expenditures or contributions made pursuant to assessments imposed by governmental authority which are applicable to Operator's costs chargeable to the Joint Account under Paragraphs 3A and 3B of this Section II.
- D. Personal Expenses of those employees whose salaries and wages are chargeable to the Joint Account under Paragraph 3A of this Section II.

4. Employee Benefits

Operator's current costs of established plans for employees' group life insurance, hospitalization, pension, retirement, stock purchase, thrift, bonus, and other benefit plans of a like nature, applicable to Operator's labor cost chargeable to the Joint Account under Paragraphs 3A and 3B of this Section II shall be Operator's actual cost not to exceed the percent most recently recommended by the Council of Petroleum Accountants Societies.

5. Material

Material purchased or furnished by Operator for use on the Joint Property as provided under Section IV. Only such Material shall be purchased for or transferred to the Joint Property as may be required for immediate use and is reasonably practical and consistent with efficient and economical operations. The accumulation of surplus stocks shall be avoided.

6. Transportation

Transportation of employees and Material necessary for the Joint Operations but subject to the following limitations:

- A. If Material is moved to the Joint Property from the Operator's warehouse or other properties, no charge shall be made to the Joint Account for a distance greater than the distance from the nearest reliable supply store where like material is normally available or railway receiving point nearest the Joint Property unless agreed to by the Parties.

- B. If surplus Material is moved to Operator's warehouse or other storage point, no charge shall be made to the Joint Account for a distance greater than the distance to the nearest reliable supply store where like material is normally available, or railway receiving point nearest the Joint Property unless agreed to by the Parties. No charge shall be made to the Joint Account for moving Material to other properties belonging to Operator, unless agreed to by the Parties.
- C. In the application of subparagraphs A and B above, the option to equalize or charge actual trucking cost is available when the actual charge is \$400 or less excluding accessorial charges. The \$400 will be adjusted to the amount most recently recommended by the Council of Petroleum Accountants Societies.

7. Services

The cost of contract services, equipment and utilities provided by outside sources, except services excluded by Paragraph 10 of Section II and Paragraph i, ii, and iii, of Section III. The cost of professional consultant services and contract services of technical personnel directly engaged on the Joint Property if such charges are excluded from the overhead rates. The cost of professional consultant services or contract services of technical personnel not directly engaged on the Joint Property shall not be charged to the Joint Account unless previously agreed to by the Parties.

8. Equipment and Facilities Furnished By Operator

- A. Operator shall charge the Joint Account for use of Operator owned equipment and facilities at rates commensurate with costs of ownership and operation. Such rates shall include costs of maintenance, repairs, other operating expense, insurance, taxes, depreciation, and interest on gross investment less accumulated depreciation not to exceed Fifteen percent (15%) per annum. Such rates shall not exceed average commercial rates currently prevailing in the immediate area of the Joint Property.
- B. In lieu of charges in paragraph 8A above, Operator may elect to use average commercial rates prevailing in the immediate area of the Joint Property less 20%. For automotive equipment, Operator may elect to use rates published by the Petroleum Motor Transport Association.

9. Damages and Losses to Joint Property

All costs or expenses necessary for the repair or replacement of Joint Property made necessary because of damages or losses incurred by fire, flood, storm, theft, accident, or other cause, except those resulting from Operator's gross negligence or willful misconduct. Operator shall furnish Non-Operator written notice of damages or losses incurred as soon as practicable after a report thereof has been received by Operator.

10. Legal Expense

Expense of handling, investigating and settling litigation or claims, discharging of liens, payment of judgements and amounts paid for settlement of claims incurred in or resulting from operations under the agreement or necessary to protect or recover the Joint Property, except that no charge for services of Operator's legal staff or fees or expense of outside attorneys shall be made unless previously agreed to by the Parties. All other legal expense is considered to be covered by the overhead provisions of Section III unless otherwise agreed to by the Parties, except as provided in Section I, Paragraph 3.

11. Taxes

All taxes of every kind and nature assessed or levied upon or in connection with the Joint Property, the operation thereof or the production therefrom, and which taxes have been paid by the Operator for the benefit of the Parties. If the ad valorem taxes are based in whole or in part upon separate valuations of each party's working interest, then notwithstanding anything to the contrary herein, charges to the Joint Account shall be made and paid by the Parties hereto in accordance with the tax value generated by each party's working interest.

12. Insurance

Net premiums paid for insurance required to be carried for the Joint Operations for the protection of the Parties. In the event Joint Operations are conducted in a state in which Operator may act as self-insurer for Worker's Compensation and/or Employers Liability under the respective state's laws, Operator may, at its election, include the risk under its self-insurance program and in that event, Operator shall include a charge at Operator's cost not to exceed manual rates.

13. Abandonment and Reclamation

Costs incurred for abandonment of the Joint Property, including costs required by governmental or other regulatory authority.

14. Communications

Cost of acquiring, leasing, installing, operating, repairing and maintaining communication systems, including radio and microwave facilities directly serving the Joint Property. In the event communication facilities/systems serving the Joint Property are Operator owned, charges to the Joint Account shall be made as provided in Paragraph 8 of this Section II.

15. Other Expenditures

Any other expenditure not covered or dealt with in the foregoing provisions of this Section II, or in Section III and which is of direct benefit to the Joint Property and is incurred by the Operator in the necessary and proper conduct of the Joint Operations.

III. OVERHEAD

1. Overhead - Drilling and Producing Operations

i. As compensation for administrative, supervision, office services and warehousing costs, Operator shall charge drilling and producing operations on either:

- Fixed Rate Basis, Paragraph 1A, or
- Percentage Basis, Paragraph 1B

Unless otherwise agreed to by the Parties, such charge shall be in lieu of costs and expenses of all offices and salaries or wages plus applicable burdens and expenses of all personnel, except those directly chargeable under Paragraph 3A, Section II. ~~The cost and expense of services from outside sources in connection with matters of taxation, title, accounting or matters before or involving governmental agencies shall be considered as included in the overhead rates provided for in the above selected Paragraph of this Section III unless such cost and expense are agreed to by the Parties as a direct charge to the Joint Account.~~

ii. The salaries, wages and Personal Expenses of Technical Employees and/or the cost of professional consultant services and contract services of technical personnel directly employed on the Joint Property:

- shall be covered by the overhead rates, or
- shall not be covered by the overhead rates.

iii. The salaries, wages and Personal Expenses of Technical Employees and/or costs of professional consultant services and contract services of technical personnel either temporarily or permanently assigned to and directly employed in the operation of the Joint Property:

- shall be covered by the overhead rates, or
- shall not be covered by the overhead rates.

A. Overhead - Fixed Rate Basis

(1) Operator shall charge the Joint Account at the following rates per well per month:

Drilling Well Rate \$ 3,000.00
(Prorated for less than a full month)

Producing Well Rate \$ 300.00

(2) Application of Overhead - Fixed Rate Basis shall be as follows:

(a) Drilling Well Rate

- (1) Charges for drilling wells shall begin on the date the well is spudded and terminate on the date the drilling rig, completion rig, or other units used in completion of the well is released, whichever is later, except that no charge shall be made during suspension of drilling or completion operations for fifteen (15) or more consecutive calendar days.
- (2) Charges for wells undergoing any type of workover or recompletion for a period of five (5) consecutive work days or more shall be made at the drilling well rate. Such charges shall be applied for the period from date workover operations, with rig or other units used in workover, commence through date of rig or other unit release, except that no charge shall be made during suspension of operations for fifteen (15) or more consecutive calendar days.

(b) Producing Well Rates

- (1) An active well either produced or injected into for any portion of the month shall be considered as a one-well charge for the entire month.
 - (2) Each active completion in a multi-completed well in which production is not commingled down hole shall be considered as a one-well charge providing each completion is considered a separate well by the governing regulatory authority.
 - (3) An inactive gas well shut in because of overproduction or failure of purchaser to take the production shall be considered as a one-well charge providing the gas well is directly connected to a permanent sales outlet.
 - (4) A one-well charge shall be made for the month in which plugging and abandonment operations are completed on any well. This one-well charge shall be made whether or not the well has produced except when drilling well rate applies.
 - (5) All other inactive wells (including but not limited to inactive wells covered by unit allowable, lease allowable, transferred allowable, etc.) shall not qualify for an overhead charge.
- (3) The well rates shall be adjusted as of the first day of April each year following the effective date of the agreement to which this Accounting Procedure is attached. The adjustment shall be computed by multiplying the rate currently in use by the percentage increase or decrease in the average weekly earnings of Crude Petroleum and Gas Production Workers for the last calendar year compared to the calendar year preceding as shown by the index of average weekly earnings of Crude Petroleum and Gas Production Workers as published by the United States Department of Labor, Bureau of Labor Statistics, or the equivalent Canadian index as published by Statistics Canada, as applicable. The adjusted rates shall be the rates currently in use, plus or minus the computed adjustment.

~~B. Overhead - Percentage Basis~~

~~(1) Operator shall charge the Joint Account at the following rates:~~

~~(a) Development~~

~~_____ Percent (____%) of the cost of development of the Joint Property exclusive of costs provided under Paragraph 10 of Section II and all salvage credits.~~

(b) Operating

_____ Percent (____%) of the cost of operating the Joint Property exclusive of costs provided under Paragraphs 2 and 10 of Section II, all salvage credits, the value of injected substances purchased for secondary recovery and all taxes and assessments which are levied, assessed and paid upon the mineral interest in and to the Joint Property.

(2) Application of Overhead - Percentage Basis shall be as follows:

~~For the purpose of determining charges on a percentage basis under Paragraph 1B of this Section III, development shall include all costs in connection with drilling, re-drilling, deepening, or any remedial operations on any or all wells involving the use of drilling rig and crew capable of drilling to the producing interval on the Joint Property; also, preliminary expenditures necessary in preparation for drilling and expenditures incurred in abandoning when the well is not completed as a producer, and original cost of construction or installation of fixed assets, the expansion of fixed assets and any other project clearly discernible as a fixed asset, except Major Construction as defined in Paragraph 2 of this Section III. All other costs shall be considered as operating.~~

2. Overhead - Major Construction

To compensate Operator for overhead costs incurred in the construction and installation of fixed assets, the expansion of fixed assets, and any other project clearly discernible as a fixed asset required for the development and operation of the Joint Property, Operator shall either negotiate a rate prior to the beginning of construction, or shall charge the Joint Account for overhead based on the following rates for any Major Construction project in excess of \$ 75,000.00 :

- A. Five % of first \$100,000 or total cost if less, plus
- B. Three % of costs in excess of \$100,000 but less than \$1,000,000, plus
- C. Two % of costs in excess of \$1,000,000.

Total cost shall mean the gross cost of any one project. For the purpose of this paragraph, the component parts of a single project shall not be treated separately and the cost of drilling and workover wells and artificial lift equipment shall be excluded.

3. Catastrophe Overhead

To compensate Operator for overhead costs incurred in the event of expenditures resulting from a single occurrence due to oil spill, blowout, explosion, fire, storm, hurricane, or other catastrophes as agreed to by the Parties, which are necessary to restore the Joint Property to the equivalent condition that existed prior to the event causing the expenditures, Operator shall either negotiate a rate prior to charging the Joint Account or shall charge the Joint Account for overhead based on the following rates:

- A. Five % of total costs through \$100,000; plus
- B. Three % of total costs in excess of \$100,000 but less than \$1,000,000; plus
- C. Two % of total costs in excess of \$1,000,000.

Expenditures subject to the overheads above will not be reduced by insurance recoveries, and no other overhead provisions of this Section III shall apply.

4. Amendment of Rates

The overhead rates provided for in this Section III may be amended from time to time only by mutual agreement between the Parties hereto if, in practice, the rates are found to be insufficient or excessive.

IV. PRICING OF JOINT ACCOUNT MATERIAL PURCHASES, TRANSFERS AND DISPOSITIONS

Operator is responsible for Joint Account Material and shall make proper and timely charges and credits for all Material movements affecting the Joint Property. Operator shall provide all Material for use on the Joint Property; however, at Operator's option, such Material may be supplied by the Non-Operator. Operator shall make timely disposition of idle and/or surplus Material, such disposal being made either through sale to Operator or Non-Operator, division in kind, or sale to outsiders. Operator may purchase, but shall be under no obligation to purchase, interest of Non-Operators in surplus condition A or B Material. The disposal of surplus Controllable Material not purchased by the Operator shall be agreed to by the Parties.

1. Purchases

Material purchased shall be charged at the price paid by Operator after deduction of all discounts received. In case of Material found to be defective or returned to vendor for any other reasons, credit shall be passed to the Joint Account when adjustment has been received by the Operator.

2. Transfers and Dispositions

Material furnished to the Joint Property and Material transferred from the Joint Property or disposed of by the Operator, unless otherwise agreed to by the Parties, shall be priced on the following basis exclusive of cash discounts:

A. New Material (Condition A)

(1) Tubular Goods Other than Line Pipe

- (a) Tubular goods, sized 2½ inches OD and larger, except line pipe, shall be priced at Eastern mill published carload base prices effective as of date of movement plus transportation cost using the 80,000 pound carload weight basis to the railway receiving point nearest the Joint Property for which published rail rates for tubular goods exist. If the 80,000 pound rail rate is not offered, the 70,000 pound or 90,000 pound rail rate may be used. Freight charges for tubing will be calculated from Lorain, Ohio and casing from Youngstown, Ohio.
- (b) For grades which are special to one mill only, prices shall be computed at the mill base of that mill plus transportation cost from that mill to the railway receiving point nearest the Joint Property as provided above in Paragraph 2.A.(1)(a). For transportation cost from points other than Eastern mills, the 30,000 pound Oil Field Haulers Association interstate truck rate shall be used.
- (c) Special end finish tubular goods shall be priced at the lowest published out-of-stock price, f.o.b. Houston, Texas, plus transportation cost, using Oil Field Haulers Association interstate 30,000 pound truck rate, to the railway receiving point nearest the Joint Property.
- (d) Macaroni tubing (size less than 2½ inch OD) shall be priced at the lowest published out-of-stock prices f.o.b. the supplier plus transportation costs, using the Oil Field Haulers Association interstate truck rate per weight of tubing transferred, to the railway receiving point nearest the Joint Property.

(2) Line Pipe

- (a) Line pipe movements (except size 24 inch OD and larger with walls ¼ inch and over) 30,000 pounds or more shall be priced under provisions of tubular goods pricing in Paragraph A.(1)(a) as provided above. Freight charges shall be calculated from Lorain, Ohio.
 - (b) Line pipe movements (except size 24 inch OD and larger with walls ¼ inch and over) less than 30,000 pounds shall be priced at Eastern mill published carload base prices effective as of date of shipment, plus 20 percent, plus transportation costs based on freight rates as set forth under provisions of tubular goods pricing in Paragraph A.(1)(a) as provided above. Freight charges shall be calculated from Lorain, Ohio.
 - (c) Line pipe 24 inch OD and over and ¼ inch wall and larger shall be priced f.o.b. the point of manufacture at current new published prices plus transportation cost to the railway receiving point nearest the Joint Property.
 - (d) Line pipe, including fabricated line pipe, drive pipe and conduit not listed on published price lists shall be priced at quoted prices plus freight to the railway receiving point nearest the Joint Property or at prices agreed to by the Parties.
- (3) Other Material shall be priced at the current new price, in effect at date of movement, as listed by a reliable supply store nearest the Joint Property, or point of manufacture, plus transportation costs, if applicable, to the railway receiving point nearest the Joint Property.
 - (4) Unused new Material, except tubular goods, moved from the Joint Property shall be priced at the current new price, in effect on date of movement, as listed by a reliable supply store nearest the Joint Property, or point of manufacture, plus transportation costs, if applicable, to the railway receiving point nearest the Joint Property. Unused new tubulars will be priced as provided above in Paragraph 2 A (1) and (2).

B. Good Used Material (Condition B)

Material in sound and serviceable condition and suitable for reuse without reconditioning:

(1) Material moved to the Joint Property

At seventy-five percent (75%) of current new price, as determined by Paragraph A.

(2) Material used on and moved from the Joint Property

- (a) At seventy-five percent (75%) of current new price, as determined by Paragraph A, if Material was originally charged to the Joint Account as new Material or
- (b) At sixty-five percent (65%) of current new price, as determined by Paragraph A, if Material was originally charged to the Joint Account as used Material.

(3) Material not used on and moved from the Joint Property

At seventy-five percent (75%) of current new price as determined by Paragraph A.

The cost of reconditioning, if any, shall be absorbed by the transferring property.

C. Other Used Material

(1) Condition C

Material which is not in sound and serviceable condition and not suitable for its original function until after reconditioning shall be priced at fifty percent (50%) of current new price as determined by Paragraph A. The cost of reconditioning shall be charged to the receiving property, provided Condition C value plus cost of reconditioning does not exceed Condition B value.

(2) Condition D

Material, excluding junk, no longer suitable for its original purpose, but usable for some other purpose shall be priced on a basis commensurate with its use. Operator may dispose of Condition D Material under procedures normally used by Operator without prior approval of Non-Operators.

- (a) Casing, tubing, or drill pipe used as line pipe shall be priced as Grade A and B seamless line pipe of comparable size and weight. Used casing, tubing or drill pipe utilized as line pipe shall be priced at used line pipe prices.
- (b) Casing, tubing or drill pipe used as higher pressure service lines than standard line pipe, e.g. power oil lines, shall be priced under normal pricing procedures for casing, tubing, or drill pipe. Upset tubular goods shall be priced on a non upset basis.

(3) Condition E

Junk shall be priced at prevailing prices. Operator may dispose of Condition E Material under procedures normally utilized by Operator without prior approval of Non-Operators.

D. Obsolete Material

Material which is serviceable and usable for its original function but condition and/or value of such Material is not equivalent to that which would justify a price as provided above may be specially priced as agreed to by the Parties. Such price should result in the Joint Account being charged with the value of the service rendered by such Material.

E. Pricing Conditions

- (1) Loading or unloading costs may be charged to the Joint Account at the rate of twenty-five cents (25¢) per hundred weight on all tubular goods movements, in lieu of actual loading or unloading costs sustained at the stocking point. The above rate shall be adjusted as of the first day of April each year following January 1, 1985 by the same percentage increase or decrease used to adjust overhead rates in Section III, Paragraph 1.A(3). Each year, the rate calculated shall be rounded to the nearest cent and shall be the rate in effect until the first day of April next year. Such rate shall be published each year by the Council of Petroleum Accountants Societies.
- (2) Material involving erection costs shall be charged at applicable percentage of the current knocked-down price of new Material.

3. Premium Prices

Whenever Material is not readily obtainable at published or listed prices because of national emergencies, strikes or other unusual causes over which the Operator has no control, the Operator may charge the Joint Account for the required Material at the Operator's actual cost incurred in providing such Material, in making it suitable for use, and in moving it to the Joint Property; provided notice in writing is furnished to Non-Operators of the proposed charge prior to billing Non-Operators for such Material. Each Non-Operator shall have the right, by so electing and notifying Operator within ten days after receiving notice from Operator, to furnish in kind all or part of his share of such Material suitable for use and acceptable to Operator.

4. Warranty of Material Furnished By Operator

Operator does not warrant the Material furnished. In case of defective Material, credit shall not be passed to the Joint Account until adjustment has been received by Operator from the manufacturers or their agents.

V. INVENTORIES

The Operator shall maintain detailed records of Controllable Material.

1. Periodic Inventories, Notice and Representation

At reasonable intervals, inventories shall be taken by Operator of the Joint Account Controllable Material. Written notice of intention to take inventory shall be given by Operator at least thirty (30) days before any inventory is to begin so that Non-Operators may be represented when any inventory is taken. Failure of Non-Operators to be represented at an inventory shall bind Non-Operators to accept the inventory taken by Operator.

2. Reconciliation and Adjustment of Inventories

Adjustments to the Joint Account resulting from the reconciliation of a physical inventory shall be made within six months following the taking of the inventory. Inventory adjustments shall be made by Operator to the Joint Account for overages and shortages, but, Operator shall be held accountable only for shortages due to lack of reasonable diligence.

3. Special Inventories

Special inventories may be taken whenever there is any sale, change of interest, or change of Operator in the Joint Property. It shall be the duty of the party selling to notify all other Parties as quickly as possible after the transfer of interest takes place. In such cases, both the seller and the purchaser shall be governed by such inventory. In cases involving a change of Operator, all Parties shall be governed by such inventory.

4. Expense of Conducting Inventories

- A. The expense of conducting periodic inventories shall not be charged to the Joint Account unless agreed to by the Parties.
- B. The expense of conducting special inventories shall be charged to the Parties requesting such inventories, except inventories required due to change of Operator shall be charged to the Joint Account.

EXHIBIT "D"

I N S U R A N C E

ATTACHED TO AND MADE A PART OF THAT CERTAIN UNIT OPERATING AGREEMENT DATED 1st DAY OF December, 1992, BY AND BETWEEN HANSON OPERATING COMPANY, INC., AS OPERATOR, AND SIETE OIL & GAS CORPORATION, ET AL, AS NON-OPERATORS.

Operator shall at all times while conducting operations hereunder carry the following insurance for the protection and benefit of the Joint Account:

(a) Workman's Compensation Insurance to comply with the applicable Federal and State Workman's Compensation laws.

(b) General Public Liability insurance with bodily injury limits of \$500,000 each occurrence; and property damage limit of \$250,000 each occurrence/\$250,000 included.

(c) Automobile Public Liability insurance with bodily injury limits of \$500,000 combined single limits.

(d) Such other insurance that may be deemed necessary by the Operator to assure proper coverage of equipment and/or oil on the jointly owned property.

All losses not covered by standard form policies of insurance for hazards set out above shall be borne by the parties hereto as their interests may appear at the time of loss.

Operator shall notify Non-Operators promptly in writing of any occurrence wherein liability may exceed the limits of the insurance if covered by insurance.

EXHIBIT E

CERTIFICATE OF COMPLIANCE

Attached to and made a part of that certain
Unit Operating Agreement dated December 1, 1992
Shugart Waterflood Unit, Hanson Operating Company, Inc.
as Operator, Eddy County, New Mexico

Unless this Agreement is exempted by law, rule, regulation or order, Operator shall comply with the following clauses contained in the Code of Federal Regulations (including any revision or redesignation thereof), which are incorporated herein by reference, the full text of which will be made available upon request:

48.C.F.R. Par.52.222-35	(Disabled and Vietnam Veterans);
48.C.F.R. Par.52.222-36	(Handicapped Workers);
48.C.F.R. Par.52.222-26	(Equal Opportunity);
48.C.F.R. Par.55.219-8 &-9	(Utilization of Small and Small Disadvantaged Business Concerns);
and	
48.C.F.R. Par.52.219-13	(Utilization of Women-Owned Small Businesses).

Where required by law and unless previously provided, Operator shall provide a Certificate of Non-Segregated Facilities to Non-Operator and shall require its contractors and subcontractors to so provide the same to Operator. Operator agrees and covenants that none of its employees or employees of its contractors or subcontractors who provide services pursuant to this Agreement are unauthorized aliens as defined in the Immigration Reform and Control Act of 1986.

EXHIBIT "G"

GAS BALANCING AGREEMENT FORM

Attached to and made a part of Shugart Waterflood Unit,
Hanson Operating Company, Inc., as Operator, Eddy County, New Mexico

In consideration of each party's right to share proportionately in cumulative gas production and of the covenants and agreements herein contained to be kept and performed by each of the parties hereto, the undersigned agree as follows:

1. EFFECTIVE DATE

The effective date of this Agreement shall be the same as the effective date of the above referenced Unit Operating Agreement, unless otherwise specified herein.

2. GENERAL RIGHTS

(a) Right To Take Full Share Of Gas

Each party to the above referenced Unit Operating Agreement has specific rights relating to the taking and disposition of gas (including casinghead gas) produced, including the right to take in kind its share of gas produced from the applicable area and to market or otherwise dispose of same. At any time while said Unit Operating Agreement is in effect, in the event any party is not at any time taking or marketing its share of gas or has contracted to sell its share thereof to one or more purchasers who do not take the party's full share of gas, then the terms of this Agreement shall automatically become effective. Nothing in this Agreement shall deny any party the right to perform any deliverability tests (at that party's sole cost) which may be required under the terms of any contract between such party and its gas purchaser.

(b) Right Of Parties To Take And Produce All Gas

All gas produced from and after the effective date of this Agreement may be utilized or sold by the parties having a use or market for such gas. During any time period in which a party hereto has no market or use for its share of gas or during which its purchaser does not take its full share of gas, then each of the other parties hereto shall be entitled to take, and use or deliver to gas purchasers all such gas. In such event, the parties having a use or market for gas shall be entitled to require that the Operator produce such gas at the greater of the allowable gas production rate assigned to the unit or that which may be from time to time permitted by the regulatory body having jurisdiction, but in no event in excess of the highest rate at which gas can be efficiently produced without causing damage to the well, equip-

ment, pool or formation or resulting in an excessive decline or loss of reservoir energy.

(c) Basis For Balancing Of Production

All balancing shall be made on a wet stream gas basis. The provisions of this Agreement shall be applicable to the entire unit covered by the Unit Operating Agreement.

3. PRODUCTION BALANCING PROCEDURES

(a) Notices Regarding Gas To Be Taken

Prior to the date a party commences initial sale or utilization of gas hereunder, and prior to any resumption thereof following a period during which such party neither sold nor utilized such gas, and prior to any substantial increase in the portion of its share of gas to be sold or utilized by any party to this Agreement, such party shall notify in writing at least thirty (30) days in advance, the Operator and all overproduced parties as shown on the most current monthly balancing statement furnished by the Operator. Such notice shall state the date of such commencement, resumption or increase and the identify of the pipeline connection.

(b) Underproduced Parties' Gas

Each party not taking or marketing its full share of gas shall be credited, on a cumulative basis, with an amount of gas in storage in the reservoir equal to its full share of gas produced under the terms of this Agreement, less such party's share of gas used in lease operations, vented or lost, and less any gas taken by such party or delivered to its purchaser. Such a party, which has an overall cumulative underproduction as described herein, shall be referred to in this Agreement as an underproduced party.

(c) Gas Utilization And Balancing Statements

During the term hereof each party hereto shall, on a monthly basis within thirty (30) days following the end of each calendar month, furnish or cause to be furnished to the Operator a statement showing the volume of gas sold and/or utilized by said party during the immediately preceding month. The Operator in turn shall, not later than forty-five (45) days following the end of each calendar month furnish to each party a monthly balancing statement showing the status of the over and short accounts for gas utilization by all of the parties, based upon the Operator's records and most current monthly statements furnished by the parties hereto.

(d) "In-Kind" Balancing Of Gas Production Accounts

Subject to the restrictions hereinafter contained, each under-produced party shall have the right at any time and from time to time to request and take that percentage as stated below of its proportionate share of the current gas production from the unit to "in-kind" balance its gas production account.

(1) Notification to Operator and Overproduced Parties

The request of an underproduced party to take gas in addition to its proportionate share to balance its account shall be given in writing, in accordance with the notice provisions of this Agreement, at least thirty (30) days in advance to the Operator and to all those parties identified as being overproduced on the most current monthly balancing statement provided by the Operator. If an overproduced party is not so notified in accordance with the notice provisions of this Agreement of an under-produced party's request to take additional volumes of gas, which notice shall be in addition to any other notice required under this Agreement, said overproduced party's allocation shall not be affected by such a request.

(2) "Peak" and "Offpeak" Balancing Limitations

Subject to Paragraph 3.(e) hereof, upon giving the hereinabove required notices, each underproduced party shall, in addition to its proportionate share of gas from the unit, be entitled to produce and take during any "peak" month an amount of gas equal to one hundred twenty percent (120%) {or during any "offpeak" month an amount of gas equal to one hundred fifty percent (150%)} of the underproduced parties' proportionate share of gas production therefrom. For purposes of this Agreement, "peak" months shall be the months of November, December, January, February and March, and "nonpeak" months shall be all other months of the year. During "peak" months, any overproduced party, at its sole option, may make available to any underproduced party or parties, gas in excess of the additional one hundred twenty percent (120%) provided for hereinabove.

(e) Production Balancing By Multiple Underproduced Parties

If at any time more than one underproduced party is taking in excess of its share of gas from the unit in order to balance its gas production account, then in that event each of the underproduced parties shall be entitled to a share of the gas production therefrom, made available by the overproduced party or parties in the ratio that the underproduction of each such underproduced party bears to the total underproduction of all such underproduced parties.

(f) Maximum Gas Available For "In-Kind" Production Balancing

Notwithstanding any provision to the contrary contained in this Agreement, the rights of each underproduced party to take gas in addition to its proportionate share for purposes of balancing its production account shall be subordinate to the right of each overproduced party to take, during any calendar month, a volume of gas not less than sixty-six and two-thirds percent (66-2/3%) of such overproduced party's share of gas from the unit.

(g) Order of Balancing

All "in-kind" balancing of production accounts shall be on such basis that additional volumes of gas taken by an underproduced party shall be first credited against each overproduced party's oldest unbalanced overproduction, unless otherwise agreed by the underproduced and overproduced parties involved.

4. SHARING LIQUIDS AND CONDENSATES

The parties hereto shall share in and own all liquid hydrocarbons recovered from such gas by lease separators and traps in accordance with their respective interests and subject to the Unit Operating Agreement to which this Agreement is attached or to which reference is made herein. Condensates and liquids recovered by other means, including but not limited to liquids recovered as a result of processing gas in gas plants or use of refrigeration units, shall be owned by the party taking the gas from which such liquids are recovered.

5. CASH BALANCING PROCEDURES

(a) General Provisions

1. Method and Basis of Cash Balancing

In making any cash balancing settlement of production accounts hereunder each underproduced party will be paid a sum of money by each overproduced party as hereinafter provided, with the Operator acting as the conduit for all such payments between the parties. Because gas prices tend to fluctuate, it is agreed that any underproduction credit against any overproduced party shall be credited against the overproduction of such party in the order of accrual. Each underproduced party will be paid a sum of money by the overproduced party equal to the amount received by such overproduced party for the overproduction including adjustment for BTU content and revenue, if any, due to liquids saved and sold as a part of the settlement price less costs accrued off lease and borne by the overproduced party in marketing, treating, processing, transporting, gathering, compressing, dehydrating or storing said gas and less all applicable taxes paid by such over-

produced party or parties. In no event shall the overproduced party be required to make a cash settlement at a price greater than the amount it received, less the aforementioned deductions. Payments by each overproduced party to the Operator shall be made within thirty (30) days following the issuance by the Operator of the final balancing statement upon which settlement of over and short accounts is to be made hereunder. Payments by the Operator to underproduced parties shall be made within thirty (30) days after its receipt of all such payments from all overproduced parties. Except to the extent of any Operator's lien as provided in the Unit Operating Agreement to which this Agreement is attached or any interest therein of the Operator as an underproduced party, the Operator shall be merely a stakeholder as to payments made to it by overproduced parties for transfer to underproduced parties and Operator shall have no ownership interest in such funds.

(2) Valuation Where Not All Overproduced Gas Was Sold

In the event an overproduced party sells only part of the gas taken by such party then for the purpose of any cash balancing, gas taken but not sold by such overproduced party shall be valued at the sales price received, less the aforementioned deductions, for gas sold by such party during the month in which such overproduction occurred.

(3) Valuation Of Overproduced Gas Sold Under Multiple Contracts

In the event an overproduced party has sold gas under more than one contract, payment to any underproduced party therefor shall be on the basis of the volume weighted average price received by the overproduced party under all such contracts.

(4) Valuation Of Overproduced Gas Where None Was Sold

During periods in which an overproduced party took all its gas and made no sales, the gas shall be valued for the purposes of this provision at the lesser of the price such overproduced party could have received for such gas if it had been actually sold and delivered under such overproduced party's gas contract, if any, or the volume weighted average price received for simultaneous sale from the unit made by other parties to this Agreement. In the event an overproduced party took gas during a period when it did not have a gas contract and when no other party to this Agreement took gas from the unit, then such gas shall be valued at the Market Value for similar gas. "Market Value" shall mean the average of the interstate and intrastate wellhead spot sales prices covering the first full week of the month for the area

from which the production occurred as set forth in the "Gas Price Trends" section of Natural Gas Week, published by The Oil Daily, Inc. (or any successor to such section or publication), or a mutually agreeable similar gas price publication should the same either 1) fail to include prices necessary to calculate Market Value or 2) cease to be published.

(5) Monies Subject To Refund Under Regulatory Order

If any portion of a price used to determine value or "Market Value" is or has been collected subject to refund upon order of the Federal Energy Regulatory Commission (FERC) or other regulatory agency having jurisdiction thereover, unless the underproduced party furnishes a corporate undertaking agreement or indemnity bond acceptable to the overproduced party to hold the overproduced party harmless from financial loss, including interest at FERC prescribed rates, due to action by the FERC, then that portion of the price subject to refund shall be withheld by the overproduced party and shall not be paid unless and until such refundable portion of said price is ultimately approved by the FERC and no longer subject to further appeal.

(b) Final Cash Balancing

Should production of gas from the unit be permanently discontinued at a point in time when the parties hereto are not in balance, then in that event upon issuance by the Unit Operator of the final balancing statement for the unit, a cash settlement will be made between the underproduced and overproduced parties according to the terms and on the basis hereinabove provided.

6. PAYMENT OF ROYALTIES, PRODUCTION TAXES AND OPERATING EXPENSES

(a) Royalties

Unless otherwise required by any State or Federal law or regulation, each party hereto will pay royalties on gas production to the respective royalty owners to whom they are accountable and in accordance with their respective agreements with those royalty owners, just as if each party were taking or delivering to a purchaser its share, and only its share, of total gas production. The term "royalty" shall include royalties, overriding royalties, production payments, net profits interests, carried working interests, and any similar burdens.

(b) Production Taxes

Unless otherwise required by any State or Federal law or regulation, each party producing and taking or delivering gas to

its purchaser, or otherwise disposing of gas, shall pay any and all production taxes due on such gas.

(c) Operating Expenses And Operator's Lien

Operating expenses are to be borne as provided in the Unit Operating Agreement to which this Agreement is attached regardless of whether all parties are selling or using gas or whether the sales and use of each are in proportion to percentage ownership. Nothing in this Agreement shall alter or diminish any lien rights granted to Unit Operator by the Unit Operating Agreement to which this Agreement is attached.

7. RECORDS REQUIREMENTS AND AUDIT RIGHTS

(a) Records Retention

Each overproduced party shall maintain, in accordance with accepted accounting methods, standards and procedures, and for the purposes of the herein referenced audit or audits, accurate and complete records for the unit on volumes of gas sold or utilized, BTU content, prices received and all other matters necessary or relevant to ensuring a balancing of production accounts in accordance with the provisions, purposes and intent of this Agreement. No party shall be required to retain volume charts for any period in excess of two (2) years from the date of production. Except as otherwise provided herein, such records shall be kept by each overproduced party as to its cumulative overproduction until two (2) years after all underproduced parties have agreed to or accepted the balancing of production accounts with such overproduced party or parties as to the overproduction covered by such records.

(b) Audits By Underproduced Parties

Subject to the provisions hereinafter set out, at any time, and from time to time, the underproduced parties shall have the right to designate a representative to audit the Unit Operator's and any or all overproduced parties' records pertaining to gas sold or utilized by such overproduced party or parties during the time or times such overproduction occurred, which records shall include, but shall not be limited to, information on the volumes and values received by the overproduced party or parties, including pricing provisions in sales contracts of overproduced parties.

8. TERMINATION

This Agreement shall terminate when gas production from all formations covered by the Unit Operating Agreement has been permanently discontinued and all gas production accounts have been balanced according to the provisions of this Agreement, or when the Unit Operating Agreement terminates, whichever is later.

9. INDEMNITY

Each party hereby agrees to indemnify, defend and hold harmless the other parties hereto against all liability and claims which may be asserted by third parties who now or hereafter stand in a contractual relationship with such indemnifying party arising out of the operation of this Agreement or activities of the indemnifying party under its provisions, and further agrees to save the other parties hereto harmless from all judgments or damages sustained and costs incurred, including attorney's fees, in connection therewith.

10. SUCCESSION AND ASSIGNMENT

(a) Notification of Transferee

The terms, covenants and conditions of this Agreement shall be binding upon and shall inure to the benefit of the parties hereto and their respective heirs, representatives, successors and assigns. The parties hereto agree to give notice of the existence of this Agreement to any successor in interest and make any transfer of any interest subject both to the Unit Operating Agreement and to the terms of this Agreement. Unless prior to such transfer a cash settlement has been made as to all unbalanced production from the unit subject to the transfer of interest, any transfer by an overproduced party of all or any part of its interest therein shall expressly provide for full assumption by the transferee of all then existing obligations of the transferor to underproduced parties, including all unsatisfied cash settlement obligations for overproduction. Such assumption by the transferee shall not relieve the transferor of any obligations for transfer's unbalanced overproduction nor shall the failure or omission of any underproduced party to require a cash settlement in accordance with this Agreement constitute a waiver of such party's rights to a balancing of such underproduction in accordance with this Agreement.

(b) Notice To Parties And Optional Cash Balancing

Upon any sale, assignment or other disposition, hereinafter called "transfer", by an overproduced party (other than through mergers or reorganizations) of all or any part of its interest in the unit, such party shall give notice thereof to the Unit Operator and to all underproduced parties at least ninety (90) days prior to the anticipated closing date of the transfer. Each underproduced party so notified shall have until thirty (30) days prior to the later of the anticipated closing date or the actual closing date of the transfer within which to notify the overproduced party of its election to receive a cash settlement for its share of the overproduced party's overproduction on the same basis as though the unit subject to the transfer of interest had permanently ceased production. In the event the overproduced party making the transfer should fail to notify an underproduced party as re-

quired above, then any underproduced party not so notified shall have a lien upon the interest transferred in the amount of the cash settlement to which the underproduced party would otherwise have been entitled, which lien shall be subordinate only to any valid Unit Operator's lien provided for in the Unit Operating Agreement to which this Agreement is attached, and which lien shall not be in lieu or waiver of any other legal rights of such underproduced party, who shall have a cause of action against and be entitled to recover from such overproduced party and his transferee, or either of them, such cash settlement amount, plus costs, attorney's fees and interest at the highest legal rate from the date of the transfer, in addition to exercising rights under the lien herein granted.

11. NOTICES

All requests and notices hereunder shall be given separately as to each matter for which the same is required, in writing, within the time limits specified, by certified mail return receipt requested, postage prepaid and properly addressed to the party to whom the request or notice is to be directed at the address shown in the Schedule of Addresses attached hereto. In the event any party fails or omits to specify an address for receipt of such requests and notices, then any such request or notice shall be effective if given at the address for that party as shown in the Unit Operating Agreement to which this Agreement is attached and if no such address is shown in the Unit Operating Agreement, then at the address for such party as shown in the records of the Unit Operator. Requests or notices shall be deemed given upon the date the same is deposited in the United States Mails as hereinabove provided.

Any party hereto may designate a different address for the receipt of requests or notices by advising the other parties hereto of such change of address in writing in the same manner as that designated for giving requests and notices above. All parties may rely upon a certified mail return receipt as conclusive evidence of the giving of any request or notice transmitted therewith.

12. CAPTIONS AND HEADINGS

The captions and headings used in this Agreement are included only for the convenience of the parties and shall not be deemed to limit, increase or control the meaning or interpretation of the provisions of this Agreement.

SCHEDULE OF ADDRESSES

GAS BALANCING AGREEMENT FORM

Attached to and made a part of that certain Unit Operating
Agreement dated December 1, 1992
Shugart Waterflood Unit, Eddy County, New Mexico

For notices of intent to make-up gas or gas in-kind, the following address
applies:

HANSON OPERATING COMPANY, INC.
Post Office Box 1515
Roswell, New Mexico 88202-1515

For Balancing Statements issued by the Unit Operator and Production Volume
Statements issued by Purchasers, the following address applies:

HANSON OPERATING COMPANY, INC.
Post Office Box 1515
Roswell, New Mexico 88202-1515