DISTRICT I

P.O. Box 1980, hobbs, NM 88240

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-107-A New 3-12-96

DISTRICT II

DISTRICT III

OIL CONSERVATION DIVISION

APPROVAL PROCESS:

811 South First St., Artesia, NM 88210

2040 South Pacheco Santa Fe, New Mexico 87505-6429

__ Administrative ____ Hearing

1000 Rio Brazos Rd., Aztec, NM 87410 CAULKINS OIL COMPANY APPLICATION FOR DOWNHOLE COMMINGLING

EXISTING WELLBORE YES

CAULKINS OIL COMPANY	(P.O. BOX 340, BLOOMFIELD, NM 87413			
SANCHEZ	4-R	F - SEC. 25-26N-6W UNITETE: - SEC TWP RGE.	RIO ARRIBA		
OGRID NO. <u>003824</u> Prope	erty Code <u>2463</u> API NO. <u>30-03</u>		Spacing Unit Lease types: (check For more) X , State, (and/or) Fee		
The following facts are submitted in support of downhole commingling:	Upper Zone	Intermediate Zone	Lower Zone		
1. Pool Name and Pool Code	Mesa Verde		Basin Dakota		
Top and Bottom of Pay Section (Perforations)	4938' – 5378'		7216' – 7456'		
3. Type of production (Oil or Gas)	Gas and Condensate	in a sign of the s	Gas and Condensate		
4. Method of Production (Flowing or Artificial Lift)	Flowing	JUL 2 8 1999	Flowing		
5. Bottomhole Pressure Zones - Artificial Lift: Estimated Current Gas & Oil - Flowing: Measured Current	(Current) a. Calculated 526 (Original) b.	a DIST. 3	a. Calculated 587		
All Gas Zones: Estimated or Measured Original	1064	b	b. 1613		
Oil Gravity (° API) or Gas BTU Content	Gas 1238 BTU		Gas 1218 BTU		
7. Producing or Shut-In	Producing		Producing		
Production Marginal? (yes or no)	Yes		Yes		
If Shut-In, give date and oil/gas/water rates of last production Note: For new zones with no production history, applicant shall be required to attach production estimates and supporting data If Producing, give date and	Date: Rates: Date: 7-20-99 Gas Oil Water	Date: Rates: Date:	Date: Rates: Date: 7-20-99 Gas Oil Water		
oil/gas/water rates of recent test (within 60 days) 8. Fixed Percentage Allocation	Rates: 80 1.43 .76 MCF/D Bbl Bbl 1 year average DPA	Rates:	Rates: 100 .62 .43		
Formula - % for each zone	Oil 76 % Gas 39 %	Oil Gas %	Oil 24 % Gas 61 %		
 If allocation formula is based up with supporting data and/or exp 	oon something other than current or pa laining method and providing rte proje	st production, or is based upon some of ections or other required data.	other method, submit attachments		
If not, have all working, overrid	I royalty interests identical in all comming, and royalty interests been notified iven written notice of the proposed do	by certified mail? Yes	s No s No es No		
11. Will cross-flow occur? X production be recovered, and w	Yes No If yes, are fluid the allocation formula be reliable.	ls compatible, will the formations not b X Yes No (If No, attach exp	oe damaged, will any cross-flowed planation)		
	commingled zones compatible with ea				
13. Will the value of production be		Yes X No (If Yes, attack	•		
Management has been notified i	ted with, state or federal lands, either the number of this application.	X Yes No	he United States Bureau of Land		
15. NMOCD Reference Cases of Re	ule 303© Exceptions: ORD	ER NO(S). <u>DHC - 659, R-10239</u>	1		
 Production cui For zones with Data to suppor Notification lis Notification lis 	a zone to be commingled sowing its sporce for each zone for at least one year. In no production history, estimated production method or formula. It of all offset operators. It of working, overriding, and royalty it is statements, data, or documents require.	(If not available, attach explanation.) duction rates and supporting data.			
I hereby certify that the infor	mation above is true and comp		lge and belief.		
SIGNATURE Robert 1 4/2		PERINTENDENT DATE Jul	y 23, 1999		
TYPE OR PRINT NAME	ROBERT L. VERQUER		NE NO. <u>(505) 632-1544</u>		

State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION 2040 South Pacheco Santa Fe, NM 87505 Form C-102 Revised October 18, 1994 Instructions on back Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

District IV 2040 South Pached	co, Santa Fe	, NM 8750	5] AM	ENDED REPORT		
		,	WELL LO	CATIO	ON AND AC	REAGE DED	ICATION PI	LAT				
i	API Numbe -039-237			² Pool C 7159	i		3 Pool 1					
⁴ Property		23		/139	5 Proper	y Name	BASIN DAKOTA * Well Number					
2463					SANC			4-R				
⁷ OGRID : 00382					* Operate Caulkins O					' Elevation 6662 GR		
00002	<u>.</u>		.			e Location		1		0002 GK		
UL or lot no.	Section	Townshi	p Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West 1	ine	County		
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		I		1		If Different Fr						
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West 1	ine	County		
12 Dedicated Acres	Joint o	r Infill	14 Consolidation	Code 15	Order No.	1.				1		
320												
		15507	1750'				Signature Printed Nam Title Date 18 SUR I hereby certif plotted from fi	Robert L Robert Super S	The security of the security o	erquer dent 99 TIFICATION shown on this plat was eys made by me or under rue and correct to the best		
SECTION AND THE SECTION ASSESSMENT	e-magnetterki)	n ha ripa fa nikitay	engeney es mijer - www.				Corr	tificate Number				

State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION 2040 South Pacheco Santa Fe, NM 87505 Form C-102 Revised October 18, 1994 Instructions on back Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

2040 South Pache	:co, Santa Fe	, NM 87505							L	J AMI	ENDED REPORT		
i	API Numbe		ELL LC	CATI		ACF	REAGE DED	ICATION PI					
)-039-237			723				MESA V					
⁴ Property				⁵ Property Name					<u> </u>		⁶ Well Number		
2463					SA	ANCE	HEZ				4-R		
'OGRID	No.				•	perator			⁹ Elevation				
00382	24				Caulkins	s Oil	Company				6662 GR		
					10 Sur	face	Location						
UL or lot no.	Section	Township	Range	Lot Idn	1		North/South line	Fect from the	East/West I		County		
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			II Bo	ottom F	Hole Locat	ion I	f Different Fr	om Surface					
UL or lot no.	Section	Township	Range	Lot Idn			North/South line	Feet from the	East/West 1	ine	County		
12 Dedicated Acr	es ¹³ Joint o	or Infill 14 (Consolidation	Code	15 Order No.		L				<u> </u>		
80		"											
16		1550	/ 1750°	建筑,在建筑地域的				I hereby certi complete to to Signature	ify that the inform the best of my know Kobert	nation co owledge d	ingue		
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		IX D						Title	sup	erinten	laent		
		Comments.	A TOTAL STREET	2				Date	Jul	y 23, 19	99		
								1 hereby cert plotted from my supervisio	ify that the well life	ocation s ual surve	TIFICATION shown on this plat was tys made by me or under true and correct to the best		
								Date of Surv	ey				
								Signature and	I Seal of Profess	ional Sur	rveyor:		

State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION 2040 South Pacheco Santa Fe, NM 87505

Form C-102 Revised October 18, 1994 Instructions on back Submit to Appropriate District Office State Lease - 4 Copies Fee Le. - 3 Copies

2040 South Pache	co, Santa Fe	, NM 87505							AMENDED REPOR	
		W	ELL LO	OCATIO	N AND AC	REAGE DED	ICATION P	LAT		
	API Numbe			² Pool Cod	le		3 Pool	Name		
30	-039-237	23		82329			OTERO (CHACRA		
⁴ Property	Code				5 Property	Name			* Well Number	
2463	SANCHEZ								4-R	
'OGRID	No.			* Elevation						
00382	4	Caulkins Oil Company							6662 GR	
					10 Surface	Location				
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
F	25	26N	6W		1750'	North	1550'	West	· · · · · ·	
			11 Вс	ttom Ho	le Location	If Different Fr	om Surface		··	
JL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	
Dedicated Acre	s ¹³ Joint o	r Infill 14	Consolidation	Code 15 O	rder No.					
160										

NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION 17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief 1750' Robert I Vergre 1550 Robert L. Verquer Printed Name Title Superintendent Manager and a second contract of the contract July 23, 1999 18SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief Date of Survey Signature and Seal of Professional Surveyor: Certificate Number

State of New Mexico Energy, Minerals & Natural Resources Department

Form C-102 Revised October 18, 1994 Instructions on back Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

Robert I Very

Printed Name

of my knowledge and belief. Date of Survey

Signature and Scal of Professional Surveyor:

Certificate Number

Robert L. Verquer

Superintendent July 23, 1999 18SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best

OIL CONSERVATION DIVISION 2040 South Pacheco Santa Fe, NM 87505

2040 South Pache	co, Santa F	e, NM 8750	5] AMI	ENDED REPOR	
			WELL LO	OCAT	ION AND	ACI	REAGE DED	ICATION P	LAT			
1,	API Numb	er		² Pool	Code			3 Pool	Name			
30-039-23723 72439 PICTURED CLIFFS												
⁴ Property	Code		5 Property Name 6 Well Numb									
2463					SA	NCI	HEZ				4-R	
⁷ OGRID	No.				* Ор	erator	Name				* Elevation	
00382	4				Caulkins	iO i	Company				6662 GR	
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F17 b	g .:	T	1	1			Location					
UL or lot no.	Section	Township	. "	Lot Idr	Feet from the 1750		North/South line	Feet from the	East/West li	ine	County	
F	25	26N	6W	6W		<u>, </u>	North 1550'		West		Rio Arriba	
			11 Bo	ottom	Hole Locati	on I	f Different Fr	om Surface				
UL or lot no.	Section	Township	Range	Lot Idn			North/South line	Feet from the	East/West li	ine	County	
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				, and a second		- [I hereby certi,	fy that the inform	ation con	tained herein is true an	
				5				complete to th	e best of my knov	wledge ai	nd belief	
• -												

1750'

5 Lease UNITED STATES NMSF-079304 DEPARTMENT OF THE INTERIOR **BUREAU OF LAND MANAGEMENT** 6. If Indian, Allottee or Tribe Name SUNDRY NOTICES AND REPORTS ON WELLS 7. Unit Agreement Name (Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use "APPLICATION FOR PERMIT--" for such proposals) 1. Oil Well [] Gas Well [] Other [] 8. Well Name and No. **GAS WELL** SANCHEZ 4-R 2. Name of Operator: 9. API Well No. Caulkins Oil Company 30-039-23723-00DI 3. Address of Operator: 10. Field and Pool, Exploratory Area (505) 632-1544 P.O. Box 340, Bloomfield, NM 87413 DAKOTA, MESA VERDE 4. Location of Well (Footage, Sec., Twp., Rge.) 11. Country or Parish, State 1750' F/N 1550' F/W SEC. 25-26N-6W Rio Arriba Co., New Mexico 12. CHECK APPROPRIATE BOX(s) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF SUBMISSION **TYPE OF ACTION** [X] Notice of Intent [] Abandonment [] Change of Plans [X] Recompletion New Construction [] Subsequent Report [] Plugging Back [] Non-Routine Fracturing [] Casing Repair [] Water Shut-Off [] Final Abandonment Notice [] Altering Casing [] Conversion to Injection [X] Other Commingle/dual complete Dispose Water 17. Describe Proposed or Completed Operations: 7-23-99 Approval to recomplete Pictured Cliffs - Chacra formation in this well to replace Sanchez 4 Chacra and Sanchez 3 Pictured Cliffs being plugged and abandoned in NW 1/4, section 25-26N-6W is requested. Also approval to commingle existing Dakota - Mesa Verde formations below a packer and commingle recompleted Pictured Cliffs - Chacra above a packer is requested. Commingling documents for Dakota - Mesa Verde allocations attached. Pictured Cliffs - Chacra would be commingled by existing order #R-5648, copy attached. Above to be done by following procedure: Rig up. T.O.H. with 2 1/6" Mesa Verde tubing form 5347'. T.O.H. with 2 1/6" Dakota production string with seal assembly from model "D" packer set at 5392'. T.I.H. with 2 3/8" work string with packer plucker mill to drill out model "D" packer. T.O.H. with tubing, mill and packer. Run wireline set retrievable bridge plug to 4600'. Pressure test 5 1/2" casing and retrievable bridge plug to 3500#. (cont. on page 2) NOTE: The format is issued in lieu of U.S. BLM Form 3160-5 18. I HEREBY CERTIFY THE FOREGOING IS TRUE AND CORRECT TITLE: Superintendent DATE: July 23, 1999 APPROVED BY: _____ DATE:__ TITLE: CONDITIONS OF APPROVAL, IF ANY

Caulkins Oil Company BLM Sundry Notice Sanchez 4-R July 23, 1999 Page 2

Pull GSL log from 4600' to 2800' for correlation log across Lewis Shale, Chacra, Pictured Cliffs and Fruitland Coal.

Perforate Chacra zone 3894' - 3866'.

Nitrogen foam frac Chacra with approximately 60,000# sand and 70 quality foam.

Run wireline set retrievable bridge plug to 3050'.

Perforate Pictured Cliffs zone 3008' - 2980'.

Nitrogen foam frac Pictured Cliffs with approximately 100,000# sand and 70 quality foam.

T.I.H. with tubing and retrieving head.

Flow well to clean up Pictured Cliffs to top of retrievable bridge plug set at 3050'.

T.O.H. with tubing and retrievable bridge plug.

T.I.H. with tubing and retrieving head.

Clean out to retrievable bridge plug set at 4600'.

T.O.H. with tubing and retrievable bridge plug.

T.I.H. with 2 1/6" Dakota - Mesa Verde production tubing with model R-3 packer.

Set packer at approximately 4000' with tubing landed at approximately 7400'.

T.I.H. with 2 1/16" Pictured Cliffs - Chacra production string and land at approximately 3800'.

Rig down and move.

No new surface will be disturbed, location area will be cleaned up when workover operations are completed.

Estimated starting date, August 24, 1999

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

CASE NO. 6121 Order No. R-5648

APPLICATION OF CAULKINS OIL COMPANY FOR DOWNHOLE COMMINGLING, RIO ARRIBA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on January 18, 1978, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 21st day of February, 1978, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

- (1) That due public notice having been given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Caulkins Oil Company, seeks authority to commingle, within the wellbore, Pictured Cliffs and Chacra production in its wells located in Sections 3, 4, 5, 7 thru 11, 13 thru 18, 21, 22, 24, and 25 in Township 26 North, Range 6 West and Sections 13, 14, 23, and 24 in Township 26 North, Range 7 West, Rio Arriba County, New Mexico.
- (3) That from the Pictured Cliffs zone, the subject wells are, or may be expected to be, capable of low rates of production only.
- (4) That from the Chacra zone, the subject wells, are or may be expected to be, capable of low rates of production only.
- (5) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.
- (6) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the wells are not shutin for an extended period.

- (7) That to afford the Commission the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Aztec district office of the Commission any time any of the subject wells are shut-in for 7 consecutive days.
- (8) That in order to allocate the commingled production to each of the commingled zones in the subject wells, 70 percent of the commingled production should be allocated to the Pictured Cliffs zone, and 30 percent of the commingled production to the Chacra zone.
- (9) That if the pressure in either of the zones to be commingled under provisions of this order in any well be less than 50 percent of the pressure in the other zone in such well, or in the event that a producing potential of more than 200 MCF/day be established for each zone in any such well, the operator should notify the Secretary-Director of the Commission of such fact, and the Secretary-Director should order such action taken as he deems advisable, including the requirement for separation of the zones by dual completion equipment.
- (10) That the downhole commingling of Pictured Cliffs and Chacra production in wells located on the above-described lands and subject to the above conditions will not cause but may prevent waste, and will not impair correlative rights and should be approved.

IT IS THEREFORE ORDERED:

- (1) That the applicant, Caulkins Oil Company, is herebys authorized to commingle Pictured Cliffs and Chacra production within the wellbores of its wells in Sections 3, 4, 5, 7 thru 11, 13 thru 18, 21, 22, 24, and 25 in Township 26 North, Range 6 West, and Sections 13, 14, 23, and 24 in Township 26 North, Range 7 West, Rio Arriba County, New Mexico.
- (2) That 70 percent of the commingled production shall be allocated to the Pictured Cliffs zone and 30 percent of the commingled production shall be allocated to the Chacra zone.
- (3) That the operator of the subject wells shall immediately notify the Commission's Aztec district office any time any of the wells have been shut-in for 7 consecutive days and shall concurrently present, to the Commission, a plan for remedial action.
- (4) That should the formation pressure in either the Pictured Cliffs zone or the Chacra zone in any well commingled pursuant to Order No. (1) above be less than 50 percent of the formation pressure in the other zone, or should both zones in any such well be calculated to have a producing potential in excess of 200 MCF per day, the operator shall notify the

-3-Case No. 6121 Order No. R-5648

Secretary-Director of the Commission of such fact, and the Secretary-Director shall order such action taken as he may deem advisable, including the requirement for separation of the zones by conventional dual completion equipment.

(5) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

SEAL

LAST 12-MONTHS PRODUCTION FOR SANCHEZ 4-R

DAKOTA

MONTH	GAS	OIL	WATER	DAYS	GAS DPA	OIL DPA
07/98	2,923	9	1	30	97	0.300
08/98	2,400	9	1	24	100	0.375
09/98	2,544	8	1	30	85	0.267
10/98	2,698	11	2	31	87	0.355
11/98	2,673	12	2	27	99	0.444
12/98	3,428	14	2	31	111	0.452
01/99	3,769	15	2	28	135	0.536
02/99	3,559	21	3	28	127	0.750
03/99	3,945	18	3	31	127	0.581
04/99	3,789	17	3	29	131	0.586
05/99	3,223	14	2	31	104	0.452
06/99	3,471	19	3	30	116	0.633
	38,422	167	25		110	0.478

MESA VERDE

MONTH	GAS	OIL	WATER	DAYS	GAS DPA	OIL DPA
05/98	1,845	43	6	31	60	1.387
06/98	1,798	33	5	30	60	1.100
08/98	1,852	49	7	22	84	2.227
10/98	2,508	73	11	31	81	2.355
11/98	2,279	66	10	27	84	2.444
12/98	2,325	25	4	31	75	0.806
01/99	1,919	34	5	23	83	1.478
02/99	1,813	47	7	28	65	1.679
03/99	1,909	45	7	31	62	1.452
04/99	1,811	40	6	29	62	1.379
05/99	1,801	25	4	31	58	0.806
06/99	1,699	43	6	30	57	1.433
	23,559	523	78		69	1.546

CAULKINS OIL COMPANY

P. O. BOX 340 BLOOMFIELD, NEW MEXICO 87413 PHONE: 505-632-1544 FAX 505-632-1471

July 23, 1999

The following list is all the offset operators to Caulkins Oil Company well Sanchez 4-R, section 25, township 26N, range 6W

Amoco Production Company 200 Amoco Court Farmington, NM 87401

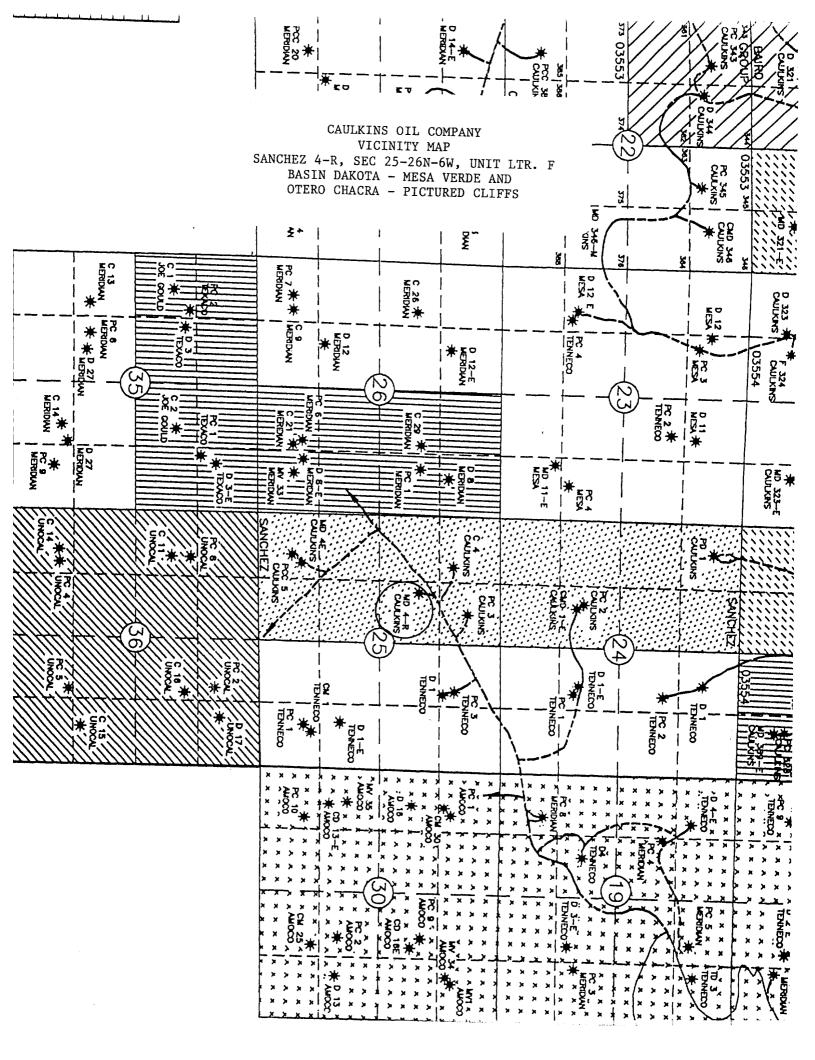
Burlington Resources P.O. Box 4289 Farmington, NM 87499

Conoco, Inc. 3315 Bloomfield Highway Farmington, NM 87401

Four Star Oil & Gas Company 3300 N. Butler Suite 100 Farmington, NM 87401 Joseph B. Gould 4430 South 3rd Las Vegas, NV 89101-6225

Merrion Oil & Gas Corp. 610 Reilly Ave. Farmington, NM 87401

Taurus Exploraation USA, Inc. 2198 Bloomfield Highway Farmington, NM 87402



CAULKINS OIL COMPANY

REMARKS 23-Jul-99 DATE **LEASE SANCHEZ** WELL NO. 4-R Dakota - Mesa Verde and Chacra - Pictured Cliffs SEC. 25 26N RGE. 6W 6/2/85 Cemented 426' 9 5/8" 36# H-40 with 306.8 cu. ft. class "B" cement (cement circulated) Pictured Cliffs perforations 3008' - 2980' - DV tool set at 3350' - 2 1/16" commingled Pictured Cliff - Chacra production tubing set approximately 3800' ·Chacra perforations 3894' - 3866' Packer set approximately 4000' Mesa Verde perforations 4938' - 5378' DV tool set at 5480' Dakota perforations 7216' - 7456' - 2 1/16" commingled Dakota - Mesa Verde production tubing set approximately 7400' 6/13/85 Cemented 5 1/2" casing 15.5# & 17# K-55 to 7525' (cement circulated) - TD 7525' PACKER **BRIDGE PLUG ‡** PERFORATIONS