

EXHIBIT "B"  
 PICTURED CLIFFS PARTICIPATING AREA "g"  
 CARRACAS CANYON UNIT AREA  
 RIO ARRIBA COUNTY, NEW MEXICO

TRACT NO.	LEASE NO. OR TYPE OF LAND	DESCRIPTION	PARTICIPATING ACRES	PERCENT OF PARTICIPATION	WORKING INTEREST OWNERS
2A	USA NM-28812 100.00000000X	TOWNSHIP 32 NORTH, RANGE 4 WEST, NMPM SEC. 35: NE/4	160	100.00000000	McHUGH COMPANIES (100.00X)
TOTALS			160	100.00000000	

SUMMARY  
 EXHIBIT "B"  
 PICTURED CLIFFS PARTICIPATING AREA "B"  
 CARRACAS CANYON UNIT AREA  
 RIO ARRIBA COUNTY, NEW MEXICO

TYPE LAND	COMMITTED ACRES	NON-COMMITTED ACRES	PERCENT COMMITTED
FEDERAL	160	-0-	100.00000000
STATE	-0-	-0-	-0-
PATENTED	-0-	-0-	-0-
TOTAL	160	-0-	100.00000000

July 28, 1994

United States Department of the Interior  
Bureau of Land Management  
Farmington District Office  
1235 La Plata Highway  
Farmington, New Mexico 87401

Re: Carracas Canyon Unit  
Pictured Cliffs Participating  
Area Paying Well

Attention: Mr. Duane W. Spencer  
Chief, Branch of Reservoir Management

Dear Mr. Spencer:

Nassau Resources, Inc. hereby submits the following well as a Paying Well for the purpose of including this well in the Pictured Cliffs Participating area in the Carracas Canyon Unit, Rio Arriba County, New Mexico.

1. CCU PC 35B-8 SE NE Section 35, T32N R04W, Rio Arriba County, NM.

Attached, for this well, is a copy of the wells production history, decline curve and an economic analysis based on the projected production from the well. This analysis is based on current payout status of the well as of May 31, 1994. A second economic analysis of the well as if it were a new well is included. A discussion of the well is included to help in your evaluation.

It is Nassau's conclusion that this well will payout the original investment, and will be capable of profitable operation for the life of the well.

If you need further data or have any questions on these wells, please call this office.

Yours very truly,



Gary J. Johnson  
V. P. Engineering

## **ENGINEERING REPORT**

### Carracas Unit PC 35B #8

Section 35, T32N, R04W

Rio Arriba County, New Mexico

Carracas Unit PC 35B #8, located 1340' FNL and 1085' FEL of Section 35, Township 32 North, Range 4 West, was spudded on October 12, 1993. Total depth of 4227' was reached on October 18, 1993 and 5-1/2", 15.5 lb/ft casing was set. The Pictured Cliffs was perforated at 4012' to 4111', selectively, with 2 shots per foot. The formation was fractured with 190,000 lbs 20/40 sand in 1050 barrels gelled water at 25 barrels per minute.

The Pictured Cliffs Formation was completed October 26, 1993. Following cleanup of the frac, the well was produced for an initial potential of 750 MCFD from the Pictured Cliffs formation on October 26, 1993.

Cumulative production from the Pictured Cliffs formation is 85,863 MCF through June 30, 1994. June, 1994 production was 9,286 MCF for a daily average of 310 MCF. June, 1994 sales were 9,285 MCF. Average daily production for 1993 was 446 MCF, while production for 1994 has averaged 321 MCFD.

### **ECONOMICS**

Based on June, 1994 sales of 9,285 MCF, a wellhead price for gas of \$1.230 per MCF and operating expenses for this well of \$1800, the well is currently operating at a profit.

Calculations used to determine the economics of this well are based on historic production, actual gas prices, actual well operating costs and projections of future production, gas prices and operating costs as shown on the attached Economics Exhibit.

July 27, 1994

Carracas Unit PC 35B-8  
SE NE (H) Section 35, T32N R04W  
Rio Arriba County, New Mexico

Carracas Unit Pictured Cliffs Participating Area  
Proposed revision to include NW/4 Section 35, T32N R04W

Cumulative Production through 5/31/1994	76,577 MCF gas 0 BBL water
Cost to drill, complete and connect well	\$480,123
Pipeline cost for this well	\$ 76,174
Land cost and management fees	<u>\$ 39,177</u>
Net cost to drill and complete well	\$364,772
Revenue from gas sales to 5/31/94 to owners (does not include royalties or taxes)	\$113,277
Lease operating costs to 5/31/94 to owners	<u>\$ 14,828</u>
Net to payout well as of 5/31/94	\$266,323
Wellhead gas price as of 7/01/94	\$1.229/MCF
Lease operating expense average 1994	\$1800/well mo

Lease: CARRACAS UNIT 35B  
 Well No.: 08 PC  
 Location: 35H 32N 04W  
 Reservoir: PICTURED CLIFFS  
 County: RIO ARRIBA State: NEW M

*As of 5-31-94 Payout Status*

DATE : 07/26/94  
 TIME : 14:42:49  
 DBS FILE : MASSOPER  
 SETUP FILE : SETDATA  
 SEQ NUMBER : 199

ITEM	INPUT DATA				CALCULATED DATA						
	SCHEDULING RATES		SCHEDULE UNTIL		PROCEDURE		ULTIMATE	LAST	EFF. DECL	INIT. RATE	FINAL RATE
406 START	08/94										
411 GAS	7714.60	X M/M	07/2009 AD		H/2.075	38.95	659.762	6/09	38.95	7715.	2011.
416 "	2011.10	X M/M	731.14 IMJ		EXP	3.00	1390.905	8/93	3.00	2011.	155.
421 GTC/GAS	1.00	1.00 U/M	1/03	AD	LIN	TIME		12/02			
506 PRI/WTR	.2500	X \$/U	TO	LIFE	PC	4.00		7/24		.250	.808
511 OPC/T	1800.00	X \$/M	TO	LIFE	PC	4.00		7/24		1800.000	5819.061
516 ATX	1.00	1.00 %	TO	LIFE	PC	.00		7/94		.010	.010
521 STX/OIL	7.08	X %	TO	LIFE	PC	.00		7/24		.071	.071
523 STX/GAS	7.93	X %	TO	LIFE	PC	.00		7/24		.079	.079
526 PRI/GAS	1.6500	1.6500 \$/M	01/96	AD	PC	.00		7/94		1.650	1.650
531 "	1.80	X \$/M	TO	LIFE	PC/Y	5.00		7/24		1.800	.079
706 NET/WI	100.0000	D %	TO	LIFE	FLAT	.00		7/24		1.000	1.000
711 NET/NIC	87.5000	D %	TO	LIFE	FLAT	.00		7/24		.875	.875
716 NET/NIG	87.5000	D %	TO	LIFE	FLAT	.00		7/24		.875	.875

INVESTMENT	TANGIBLES & INTANGIBLES		TIME	PROCEDURE	TOTAL T&I	MONTH	RISK INV.	TOT. T&I&R	ESC. T&I&R
801 CAPITAL	56.00	150.00 MSG	08/94 AD		206.000	8/94	.	206.0	206.0

RESERVE PARAMETERS		ITEM	ITEM
206 CUMO, MB	.00	CUMG, MMF	93.90
211 LOSS	NO		
216 LIFE	30.00		

PROJECT ASSUMPTIONS

BASE DATE : 8/94 P.W. DATE : 8/94 REPORT DATE : 8/94  
 QUALIFIERS - PROD : NPBLM OWNER : NPBLM OTHER : NPBLM

# As of 5-31-94 Payout Status

Lease: CARRACAS UNIT 35B  
 Well No.: 08 PC  
 Location: 35H 32N 04W  
 Reservoir: PICTURED CLIFFS  
 County: RIO ARRIBA State: NEW M

DATE : 07/26/94  
 TIME : 14:42:49  
 DBS FILE : MASSOPER  
 SETUP FILE : SETDATA  
 SEQ NUMBER : 199

## RESERVES AND ECONOMICS

AS OF DATE: 8/94

-END- MO-YR	GROSS GAS PRODUCTION ---MMCF---	NET GAS PRODUCTION ---MMCF---	GROSS WTR PRODUCTION ---MBBLS---	NET WTR PRODUCTION ---MBBLS---	NET GAS PRICE ---\$/MCF---	NET GAS SALES ---M\$---	TOTAL NET SALES ---M\$---	FED INCOME TAX CREDIT ---M\$---	MARKETING FEE ---M\$---
12-94	35.271	30.863	.000	.000	1.650	50.923	50.923	.000	.000
12-95	67.860	59.377	.000	.000	1.650	97.973	97.973	.000	.000
12-96	55.040	48.160	.000	.000	1.800	86.689	86.689	.000	.000
12-97	47.624	41.671	.000	.000	1.890	78.759	78.759	.000	.000
12-98	42.624	37.296	.000	.000	1.985	74.014	74.014	.000	.000
12-99	38.954	34.085	.000	.000	2.084	71.024	71.024	.000	.000
12-00	36.112	31.598	.000	.000	2.188	69.133	69.133	.000	.000
12-01	33.824	29.596	.000	.000	2.297	67.991	67.991	.000	.000
12-02	31.931	27.939	.000	.000	2.412	67.395	67.395	.000	.000
12-03	30.330	26.539	.000	.000	2.533	67.217	67.217	.000	.000
12-04	28.953	25.334	.000	.000	2.659	67.373	67.373	.000	.000
12-05	27.752	24.283	.000	.000	2.792	67.807	67.807	.000	.000
12-06	26.692	23.355	.000	.000	2.932	68.478	68.478	.000	.000
12-07	25.747	22.529	.000	.000	3.079	69.358	69.358	.000	.000
12-08	24.899	21.786	.000	.000	3.233	70.425	70.425	.000	.000
S TOT	553.613	484.412	.000	.000	2.218	1074.558	1074.558	.000	.000
AFTER	304.008	266.007	.000	.000	4.818	1281.562	1281.562	.000	.000
TOTAL	857.622	750.419	.000	.000	3.140	2356.120	2356.120	.000	.000

-END- MO-YR	SEVERANCE TAX ---M\$---	AD VALOREM TAX ---M\$---	DIRECT OPER EXPENSE ---M\$---	OPER EXP + TAXES ---M\$---	NET PROFIT ---M\$---	EQUITY INVESTMENT ---M\$---	FUTURE NET CASHFLOW ---M\$---	CUMULATIVE CASHFLOW ---M\$---	CUM. DISC. CASHFLOW ---M\$---
12-94	4.038	.469	9.059	13.566	37.357	206.000	-168.643	-168.643	-169.350
12-95	7.769	.902	22.356	31.027	66.946	.000	66.946	-101.697	-107.808
12-96	6.874	.798	23.250	30.922	55.766	.000	55.766	-45.931	-61.242
12-97	6.246	.725	24.180	31.150	47.608	.000	47.608	1.677	-25.115
12-98	5.869	.681	25.147	31.698	42.316	.000	42.316	43.993	4.070
12-99	5.632	.654	26.153	32.439	38.585	.000	38.585	82.578	28.260
12-00	5.482	.637	27.199	33.318	35.815	.000	35.815	118.393	48.670
12-01	5.392	.626	28.287	34.305	33.686	.000	33.686	152.080	66.121
12-02	5.344	.621	29.418	35.383	32.012	.000	32.012	184.091	81.196
12-03	5.330	.619	30.595	36.544	30.673	.000	30.673	214.764	94.327
12-04	5.343	.620	31.819	37.782	29.592	.000	29.592	244.355	105.843
12-05	5.377	.624	33.092	39.093	28.714	.000	28.714	273.070	116.002
12-06	5.430	.630	34.415	40.476	28.002	.000	28.002	301.072	125.008
12-07	5.500	.639	35.792	41.931	27.427	.000	27.427	328.499	133.027
12-08	5.585	.648	37.224	43.457	26.968	.000	26.968	355.467	140.196
S TOT	85.212	9.893	417.985	513.091	561.467	206.000	355.467	355.467	140.196
AFTER	101.628	11.799	815.501	928.929	352.633	.000	352.633	708.101	189.170
TOTAL	186.840	21.693	1233.487	1442.020	914.101	206.000	708.101	708.101	189.170

	OIL	GAS		P.W. %	P.W., M\$
GROSS WELLS	.0	1.0	LIFE, YRS.	5.00	349.992
GROSS ULT., MB & MMF	.000	951.520	DISCOUNT %	10.00	189.170
GROSS CUM., MB & MMF	.000	93.898	UNDISCOUNTED PAYOUT, YRS.	15.00	104.068
GROSS RES., MB & MMF	.000	857.622	DISCOUNTED PAYOUT, YRS.	20.00	52.696
NET RES., MB & MMF	.000	750.419	UNDISCOUNTED NET/INVEST.	25.00	18.465
NET REVENUE, M\$	.000	2356.121	DISCOUNTED NET/INVEST.	30.00	-6.049
INITIAL PRICE, \$	.000	1.650	RATE-OF-RETURN, PCT.	40.00	-39.081
INITIAL N.I., PCT.	.000	87.500	INITIAL W.I., PCT.	60.00	-75.777
				80.00	-96.155
				100.00	-109.324

*As if New Well 8/94*

Lease: CARRACAS UNIT 35B  
 Well: 08PC  
 Location: 35M 32N 4W  
 Reservoir: PICTURED CLIFFS  
 County: RIO ARRIBA State: NM

DATE : 07/26/94  
 TIME : 11:36:20  
 DBS FILE : NASSOPER  
 SETUP FILE : SETDATA  
 SEQ NUMBER : 204

INPUT DATA

CALCULATED DATA

ITEM	SCHEDULING RATES			SCHEDULE UNTIL		PROCEDURE		ULTIMATE	LAST	EFF. DECL	INIT. RATE	FINAL RATE
406 START	08/94											
411 GAS	14100.00	100.00	M/M	X	MMF	H/1.500	72.40	1665.984	7/94	72.40	14100.	262.
506 OPC/T	1800.00	X	\$/M	TO	LIFE	PC	4.00		7/24		1800.000	5819.061
511 ATX	1.00	1.00	%	TO	LIFE	PC	.00		7/94		.010	.010
516 STX/OIL	7.08	X	%	TO	LIFE	PC	.00		7/24		.071	.071
518 STX/GAS	7.93	X	%	TO	LIFE	PC	.00		7/24		.079	.079
521 PRI/GAS	1.6500	1.6500	\$/M	01/96	AD	PC	.00		7/94		1.650	1.650
526 "	1.80	X	\$/M	TO	LIFE	PC/Y	5.00		7/24		1.800	.079
706 NET/WI	100.0000	D	%	TO	LIFE	FLAT	.00		7/24		1.000	1.000
711 NET/NIC	87.5000	D	%	TO	LIFE	FLAT	.00		7/24		.875	.875
716 NET/NIG	87.5000	D	%	TO	LIFE	FLAT	.00		7/24		.875	.875

INVESTMENT	TANGIBLES & INTANGIBLES		TIME	PROCEDURE	TOTAL T&I	MONTH	RISK INV.	TOT. T&I&R	ESC. T&I&R
801 CAPITAL	65.00	300.00	M\$G	08/94 AD	365.000	8/94	.	365.0	365.0

RESERVE PARAMETERS	ITEM	ITEM
206 CUMO, MB	.00	CUMG, MMF .00
211 LOSS NO		CUML, MB
216 LIFE	30.00	

PROJECT ASSUMPTIONS

BASE DATE : 8/94 P.W. DATE : 8/94 REPORT DATE : 8/94  
 QUALIFIERS - PROD : BLM OWNER : BLM OTHER : BLM

As if NEW WELL 8/94

Lease: CARRACAS UNIT 35B  
 Well: 08PC  
 Location: 35M 32N 4W  
 Reservoir: PICTURED CLIFFS  
 County: RIO ARRIBA State: NM

DATE : 07/26/94  
 TIME : 11:36:20  
 DBS FILE : NASSOPER  
 SETUP FILE : SETDATA  
 SEQ NUMBER : 204

RESERVES AND ECONOMICS

AS OF DATE: 8/94

-END- MO-YR	GROSS GAS PRODUCTION -----MMCF-----	NET GAS PRODUCTION -----MMCF-----	GROSS WTR PRODUCTION -----MBBLS-----	NET WTR PRODUCTION -----MBBLS-----	NET GAS PRICE -----\$/MCF-----	NET GAS SALES -----M\$-----	TOTAL NET SALES -----M\$-----	FED INCOME TAX CREDIT -----M\$-----	MARKETING FEE -----M\$-----
12-94	57.164	50.019	.000	.000	1.650	82.531	82.531	.000	.000
12-95	87.805	76.829	.000	.000	1.650	126.768	126.768	.000	.000
12-96	60.733	53.141	.000	.000	1.800	95.655	95.655	.000	.000
12-97	48.084	42.073	.000	.000	1.890	79.518	79.518	.000	.000
12-98	40.484	35.423	.000	.000	1.985	70.298	70.298	.000	.000
12-99	35.322	30.906	.000	.000	2.084	64.400	64.400	.000	.000
12-00	31.545	27.601	.000	.000	2.188	60.390	60.390	.000	.000
12-01	28.639	25.060	.000	.000	2.297	57.569	57.569	.000	.000
12-02	26.323	23.033	.000	.000	2.412	55.559	55.559	.000	.000
12-03	24.425	21.372	.000	.000	2.533	54.130	54.130	.000	.000
12-04	22.836	19.981	.000	.000	2.659	53.139	53.139	.000	.000
12-05	21.482	18.797	.000	.000	2.792	52.489	52.489	.000	.000
12-06	20.313	17.774	.000	.000	2.932	52.114	52.114	.000	.000
12-07	19.291	16.880	.000	.000	3.079	51.967	51.967	.000	.000
12-08	18.389	16.090	.000	.000	3.233	52.013	52.013	.000	.000
S TOT	542.835	474.981	.000	.000	2.123	1008.539	1008.539	.000	.000
AFTER	141.438	123.759	.000	.000	4.147	513.265	513.265	.000	.000
TOTAL	684.273	598.739	.000	.000	2.542	1521.805	1521.805	.000	.000

-END- MO-YR	SEVERANCE TAX -----M\$-----	AD VALOREM TAX -----M\$-----	DIRECT OPER EXPENSE -----M\$-----	OPER EXP + TAXES -----M\$-----	NET PROFIT -----M\$-----	EQUITY INVESTMENT -----M\$-----	FUTURE NET CASHFLOW -----M\$-----	CUMULATIVE CASHFLOW -----M\$-----	CUM. DISC. CASHFLOW -----M\$-----
12-94	6.545	.760	9.059	16.364	66.167	365.000	-298.833	-298.833	-300.038
12-95	10.053	1.167	22.356	33.575	93.193	.000	93.193	-205.640	-214.201
12-96	7.585	.881	23.250	31.716	63.939	.000	63.939	-141.702	-160.753
12-97	6.306	.732	24.180	31.218	48.301	.000	48.301	-93.401	-124.070
12-98	5.575	.647	25.147	31.369	38.929	.000	38.929	-54.472	-97.201
12-99	5.107	.593	26.153	31.853	32.548	.000	32.548	-21.924	-76.782
12-00	4.789	.556	27.199	32.544	27.846	.000	27.846	5.921	-60.902
12-01	4.565	.530	28.287	33.382	24.187	.000	24.187	30.108	-48.363
12-02	4.406	.512	29.418	34.336	21.223	.000	21.223	51.331	-38.360
12-03	4.293	.498	30.595	35.386	18.744	.000	18.744	70.075	-30.329
12-04	4.214	.489	31.819	36.522	16.617	.000	16.617	86.692	-23.856
12-05	4.162	.483	33.092	37.737	14.752	.000	14.752	101.444	-18.631
12-06	4.133	.480	34.415	39.028	13.086	.000	13.086	114.530	-14.416
12-07	4.121	.478	35.792	40.391	11.576	.000	11.576	126.106	-11.027
12-08	4.125	.479	37.224	41.827	10.186	.000	10.186	136.291	-8.314
S TOT	79.977	9.286	417.985	507.248	501.291	365.000	136.291	136.291	-8.314
AFTER	40.702	4.726	427.814	473.242	40.023	.000	40.023	176.315	-.447
TOTAL	120.679	14.011	845.799	980.490	541.315	365.000	176.315	176.315	-.447

	OIL	GAS		P.W. %	P.W., M\$
GROSS WELLS	.0	1.0	LIFE, YRS.	5.00	67.672
GROSS ULT., MB & MMF	.000	684.273	DISCOUNT %	10.00	-.447
GROSS CUM., MB & MMF	.000	.000	UNDISCOUNTED PAYOUT, YRS.	15.00	-46.580
GROSS RES., MB & MMF	.000	684.273	DISCOUNTED PAYOUT, YRS.	20.00	-79.786
NET RES., MB & MMF	.000	598.739	UNDISCOUNTED NET/INVEST.	25.00	-104.854
NET REVENUE, M\$	.000	1521.805	DISCOUNTED NET/INVEST.	30.00	-124.498
INITIAL PRICE, \$	.000	1.650	RATE-OF-RETURN, PCT.	40.00	-153.454
INITIAL N.I., PCT.	.000	87.500	INITIAL W.I., PCT.	60.00	-189.306
				80.00	-211.061
				100.00	-225.897

Page No.: 1

Print Time: Thu Jul 28 10:47:19 1994

Property ID: 199

Property Name: CARRACAS UNIT 35B | 08 PC | NASSAU RESOURCES, IN

Table Name: G:\GARY\NASSOPER\PRODUCT.DBF

Total Records: 9/24979

<u>--DATE--</u>	<u>----OIL----</u>	<u>----GAS----</u>	<u>---WATER---</u>	<u>----GOR----</u>	<u>----YIELD----</u>	<u>---WTRCUT---</u>
	Bbl	Mcf	Bbl	Scf/Bbl		
10/30/93	0	0	0	0.000	0.000	0.000
11/30/93	0	14084	0	0.000	0.000	0.000
12/31/93	0	13598	0	0.000	0.000	0.000
01/31/94	0	11416	0	0.000	0.000	0.000
02/28/94	0	9231	0	0.000	0.000	0.000
03/31/94	0	10224	0	0.000	0.000	0.000
04/30/94	0	8698	0	0.000	0.000	0.000
05/31/94	0	9326	0	0.000	0.000	0.000
06/30/94	0	9286	0	0.000	0.000	0.000

YEAR	10	10	10	100	100	100	1000	1000	10000	100000
	10	10	10	100	100	100	1000	1000	10000	100000
	10	10	10	100	100	100	1000	1000	10000	100000
	10	10	10	100	100	100	1000	1000	10000	100000
90										
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N-GAS-MCF

OPERATOR: NASSAU RESOURCES, INC.  
LEASE: CARRACAS UNIT 35B  
WELL: 08 PC LOCATION: 35H 32N 04W  
FIELD: RIO ARRIBA (PICTURED STATE: NM  
COUNTY: RIO ARRIBA  
07/28/94

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

(See other instructions on reverse side)

Form approved.  
Budget Bureau No. 1004-0137  
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG \*

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other \_\_\_\_\_

b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP-EN  PUG BACK  DIFF. REVR.  Other \_\_\_\_\_

2. NAME OF OPERATOR  
NASSAU RESOURCES, INC.

3. ADDRESS OF OPERATOR  
P O BOX 809, Farmington, N.M. 87499

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface 1340' FNL & 1085' FEL  
At top prod. interval reported below  
At total depth

14. MEXICANO API# 30-039-25332 DATE ISSUED 9/17/93

5. LEASE DESIGNATION AND SERIAL NO.  
NM 28812

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME  
Carracas Unit

8. FARM OR LEASE NAME  
Carracas Unit-PC 35B

9. WELL NO.  
8

10. FIELD AND POOL, OR WILDCAT  
Undesign. Pictured Cliffs

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA  
Sec. 35, T32N, R4W NMPM

12. COUNTY OR PARISH  
Rio Arriba

13. STATE  
NM

15. DATE SPUNDED 10/12/93 16. DATE T.D. REACHED 10/18/93 17. DATE COMPL. (Ready to prod.) 10/26/93 18. ELEVATIONS (DP, RKB, RT, GR, ETC.)\* 7010' GL 19. ELEV. CASINGHEAD 7010' GL

20. TOTAL DEPTH, MD & TVD 4227' KB 21. PLUG BACK T.D., MD & TVD 4167' 22. IF MULTIPLE COMPL., HOW MANY\* NA 23. INTERVALS DRILLED BY TD 24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\* 4012-4111' Pictured Cliffs 25. WAS DIRECTIONAL SURVEY MADE NO

26. TYPE ELECTRIC AND OTHER LOGS RUN Dual Induction, Microlog, GR-CBL 27. WAS WELL CORED NO

29. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9-5/8"	36#	318' KB	12-1/4"	201 cu.ft. circ. to surf.	---
5-1/2"	15.5#	4226' KB	8-3/4"	1258 cu.ft. circ. to surf.	---
See reverse.					

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
NA				

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-7/8"	4007' KB	--

31. PERFORATION RECORD (Interval, size and number)

4012 - 4028	4057 - 4061
4022 - 4031	4072 - 4078
4033 - 4040	4100 - 4106
4048 - 4052	4109 - 4111'
4054	0.5" holes Total of 56 perfs.

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
4012-4111'	1000 gal. 15% HCL acid
	1050 bbls. Viking I-30 fluid
	190,000# of 20/40 sand

33.\* PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
10/26/93 *	Flowing	SI

DATE OF TEST	HOURS TESTED	CHOKE SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
10/27/93	12	.250"	→	0	437.5	12	NA

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
510 psi	590 psi	→	0	750	24	NA

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)  
Vented during test; to be sold.

TEST WITNESSED BY  
M. Brasuel

35. LIST OF ATTACHMENTS  
\*1st hydrocarbons to well bore during completion operations.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

SIGNED Fran Perrin Fran Perrin TITLE Regulatory Liaison DATE 10/27/93

\*(See Instructions and Spaces for Additional Data on Reverse Side)

NASSAU RESOURCES, INC.  
P O BOX 809  
FARMINGTON, N.M. 87499-0809  
505 326-7793  
FAX NUMBER 505 327-0859  
MORNING REPORT  
Four Corners Rig #4

WELL: CARRACAS UNIT-PC 35 B #8                      DATE: 10-20-93  
DEPTH @ 6:00 A.M.: 4225' TD      OPERATION @ 6:00 AM: RIG RELEASED  
FOOTAGE DRILLED LAST 24 HRS: 0'                      DAYS SINCE SPUD: 8  
OPERATIONS LAST 24 HRS:

HRS.    1/4 - LAY DOWN DRILL PIPE  
HRS.    1    - CHANGE RAMS AND RIG UP CASING CREW  
HRS.    2-3/4 - RUN 5-1/2" CASING  
HRS.    1-3/4 - CIRCULATE AND WAIT ON WESTERN CO.  
HRS.    1    - CEMENT 1ST STAGE  
HRS.    3    - CIRCULATE BETWEEN STAGES  
HRS.    1    - CEMENT 2ND STAGE  
HRS.    2-1/4 - SET SLIPS AND CUT OFF CASING  
HRS.    11   - RIG DOWN TO MOVE RIG

REMARKS: REACHED TD OF 4225' KB ON 10/18/93.  
RAN 97 JTS. OF 5-1/2", 15.5#, CASING. SET AT 4226' KB.  
DV TOOL AT 3573.64' AND FLOAT AT 4181.50'.  
CEMENTED AS FOLLOWS:  
1ST STAGE - 20 BBLs. MUD FLUSH, 180 SX OF 50/50 POZ  
WITH 2% GEL AND 1/4#/SK GILZONITE. (250 CU.FT.)  
2ND STAGE - 20 BBLs. MUD FLUSH, 530 SX OF 65/35 POZ  
WITH 12% GEL AND 6-1/4#/SK GILZONITE AND 1/4#/SK  
CELLOSEAL (938 CU.FT.) FOLLOWED BY 50 SX OF 50/50 POZ  
WITH 2% GEL AND 1/4#/SK GILZONITE. (70 CU.FT.)  
TOTAL OF 1258 CU.FT.  
FULL RETURNS THROUGHOUT JOB.  
CIRCULATED 40 BBLs OF CEMENT TO SURFACE.  
PLUG DOWN 1ST STAGE AT 12:11 PM ON 10-19-93.  
PLUG DOWN 2ND STAGE AT 4:30 PM ON 10-19-93.  
SET SLIPS AND RELEASED RIG AT 8:00 PM ON 10-19-93.

NASSAU RESOURCES, INC.  
P O BOX 809  
FARMINGTON, N.M. 87499-0809  
505 326-7793  
FAX NUMBER 505 327-0859  
MORNING REPORT  
Four Corners Rig #4

WELL: CARRACAS UNIT-PC 35 B #8 DATE: 10-19-93  
DEPTH @ 6:00 A.M.: 4225' TD OPERATION @ 6:00 AM: LAY DOWN DP  
FOOTAGE DRILLED LAST 24 HRS: 75' DAYS SINCE SPUD: 7  
OPERATIONS LAST 24 HRS:

HRS. 5-1/2 - TRIPPING  
HRS. 1/4 - RIG SERVICE  
HRS. 4 - DRILLING  
HRS. 1/4 - SURVEYING  
HRS. 2 - WAITING ON LOGGERS  
HRS. 4-1/4 - LOGGING  
HRS. 3-1/2 - CIRCULATING  
HRS. 4-1/4 - LAY DOWN DRILL PIPE

MUD PROPERTIES:

WEIGHT	9.0	VIS	90	WATER LOSS	0.0
PH	9.0	SOLIDS	4%	2% LCM	
PV	24	YP	20	SAND	1/4%

CUM MUD COST - \$9,210.00

SURVEYS: 1-1/4" AT 4225'

BIT SUMMARY:	BIT NO. 4
SIZE	8-3/4"
MAKE	HTC
SERIAL NO.	D63WC
TYPE	ATJ11C
DEPTH IN	2869'
DEPTH OUT	4225'
FTG.	1356'
ROTATING HRS.	54-1/2
NOZZLE SIZE	11-12-B
CONDITION	3-3-I
FT./HR.	24.99

W.O.B. 45,000#  
RPM 85  
H.L. 110,000#

PUMP: 102 SPM @ 1500 PSI

REMARKS: LAY DOWN DRILL PIPE TO RUN CASING CEMENT REPORT TO FOLLOW LATER.

**NASSAU RESOURCES, INC.**  
**P O BOX 809**  
**FARMINGTON, N.M. 87499-0809**  
**505 326-7793**  
**FAX NUMBER 505 327-0859**  
**MORNING REPORT**  
**Four Corners Rig #4**

WELL: CARRACAS UNIT-PC 35 B #8                      DATE: 10-18-93  
 DEPTH @ 6:00 A.M.: 4150'                      OPERATION @ 6:00 AM: DRILLING  
 FOOTAGE DRILLED LAST 24 HRS: 555'                      DAYS SINCE SPUD: 6  
 OPERATIONS LAST 24 HRS:  
     HRS. 23                      - DRILLING  
     HRS.     3/4- RIG SERVICE  
     HRS.     1/4- SURVEYING

MUD PROPERTIES:

WEIGHT	9.1	VIS	90	WATER LOSS	6.0
PH	9.0	SOLIDS	4%	5% LCM	
PV	24	YP	20	SAND	.25

MUD LOSS - 70 BBLs. AT 3900'+ DEPTH  
 CUM MUD COST - \$9,210.00

SURVEYS: 1-1/4° AT 3759'

<b>BIT SUMMARY:</b>	<b>BIT NO. 4</b>
SIZE	8-3/4"
MAKE	HTC
SERIAL NO.	D63WC
TYPE	ATJ11C
DEPTH IN	2869'
DEPTH OUT	INC.
FTG.	1281'
ROTATING HRS.	50-1/2
NOZZLE SIZE	11-12-B
CONDITION	
FT./HR.	25

W.O.B. 45,000#  
 RPM 85  
 H.L. 108,000#

PUMP: 102 SPM @ 1500 PSI

BHA:	1 - 8-3/4" BIT	.75
	1 - S. SUB	17.21
	1 - BIT SUB	3.59
	2 - 6-1/8 DC'S	60.24
	1 - NRS	7.25
	16 - 6-1/8 DC'S	478.67
	6 - HWDP	177.59
	TOTAL	745.30

NASSAU RESOURCES, INC.  
P O BOX 809  
FARMINGTON, N.M. 87499-0809  
505 326-7793  
FAX NUMBER 505 327-0859  
MORNING REPORT  
Four Corners Rig #4

WELL: CARRACAS UNIT-PC 35 B #8                      DATE: 10-17-93  
DEPTH @ 6:00 A.M.: 3595'                      OPERATION @ 6:00 AM: DRILLING  
FOOTAGE DRILLED LAST 24 HRS: 595'                      DAYS SINCE SPUD: 5  
OPERATIONS LAST 24 HRS:  
HRS. 22-3/4- DRILLING  
HRS. 1/2- RIG SERVICE  
HRS. 3/4- SURVEYING

MUD PROPERTIES:  
WEIGHT 9.0                      VIS 61                      WATER LOSS 6.0  
PH 9.0                      SOLIDS 3%                      OIL%  
PV 24                      YP 18                      SAND .25

CUM MUD COST - \$7,760.00

SURVEYS: 2-1/4° AT 3107'                      2° AT 3354'

BIT SUMMARY:                      BIT NO. 4  
SIZE 8-3/4"  
MAKE HTC  
SERIAL NO. D63WC  
TYPE ATJ11C  
DEPTH IN 2869'  
DEPTH OUT INC.  
FTG. 726'  
ROTATING HRS. 27-1/4  
NOZZLE SIZE 11-12-B  
CONDITION  
FT./HR. 26.6

W.O.B. 42,000#  
RPM 00  
H.L. 100,000#

PUMP: 102 SPM @ 1500 PSI

BHA: 1 - 8-3/4" BIT .75  
1 - S. SUB 17.21  
1 - BIT SUB 3.59  
2 - 6-1/8 DC'S 60.24  
1 - NRS 7.25  
16 - 6-1/8 DC'S 478.67  
6 - HWDP 177.59  
TOTAL 745.30

NASSAU RESOURCES, INC.  
P O BOX 809  
FARMINGTON, N.M. 87499-0809  
505 326-7793  
FAX NUMBER 505 327-0859  
MORNING REPORT  
Four Corners Rig #4

WELL: CARRACAS UNIT-PC 35 B #8 DATE: 10-16-93  
DEPTH @ 6:00 A.M.: 3000' OPERATION @ 6:00 AM: DRILLING  
FOOTAGE DRILLED LAST 24 HRS: 600' DAYS SINCE SPUD: 4  
OPERATIONS LAST 24 HRS:

HRS. 3 - TRIPPING  
HRS. 17-3/4- DRILLING  
HRS. 1/2- RIG SERVICE  
HRS. 3/4- SURVEYING  
HRS. 1-1/2- CHANGE BHA  
HRS. 1/2- WASH 70' TO BOTTOM

MUD PROPERTIES:

WEIGHT	9.0	VIS	55	WATER LOSS	6.0
PH	9.0	SOLIDS	3%	OIL%	
PV	24	YP	20	SAND	.25

CUM MUD COST - \$6,570.00

SURVEYS: 1-1/2° AT 2495' 2° AT 2837'

BIT SUMMARY:

	BIT NO. 3	BIT NO. 4
SIZE	8-3/4"	8-3/4"
MAKE	HTC	HTC
SERIAL NO.	D29WC	D63WC
TYPE	ATJ11C	ATJ11C
DEPTH IN	1437'	2869'
DEPTH OUT	2869'	INC.
FTG. DRLD.	1432'	131'
ROTATING HRS.	34	4-1/2
NOZZLE SIZE	11-12-B	11-12-B
CONDITION		
FT./HR.	42	29

W.O.B. 42,000#  
RPM  
H.L. 94,000#

PUMP: 102 SPM @ 1500 PSI

BHA:	1 - 8-3/4" BIT	.75
	1 - S. SUB	17.21
	1 - BIT SUB	3.59
	2 - 6-1/8 DC'S	60.24
	1 - NRS	7.25
	16 - 6-1/8 DC'S	478.67
	6 - HWDP	177.59
	TOTAL	745.30

**NASSAU RESOURCES, INC.**  
**P O BOX 809**  
**FARMINGTON, N.M. 87499-0809**  
**505 326-7793**  
**FAX NUMBER 505 327-0859**  
**MORNING REPORT**  
**Four Corners Rig #4**

WELL: CARRACAS UNIT-PC 35 B #8                      DATE: 10-15-93  
 DEPTH @ 6:00 A.M.: 2400'                      OPERATION @ 6:00 AM: DRILLING  
 FOOTAGE DRILLED LAST 24 HRS: 963'                      DAYS SINCE SPUD: 3  
 OPERATIONS LAST 24 HRS:  
     HRS. 2            - TRIPPING  
     HRS. 20-3/4- DRILLING  
     HRS. 3/4- RIG SERVICE  
     HRS. 1/2- SURVEYING

**MUD PROPERTIES:**

WEIGHT	9.0	VIS	55	WATER LOSS	6.0
PH	9.0	SOLIDS	3%	OIL%	
PV	21	YP	15	SAND	1/4

CUM MUD COST - \$5,130.00

SURVEYS: 1-1/2° AT 1397'                      1-1/2° AT 1593'                      1-1/4° AT 1936'

**BIT SUMMARY:**

	BIT NO. 2	BIT NO. 3
SIZE	8-3/4"	8-3/4"
MAKE	VAREL	HTC
SERIAL NO.	52846	D29WC
TYPE	L-127	11C
DEPTH IN	325'	1437'
DEPTH OUT	1437'	INC.
FTG. DRLD.	1112'	963'
ROTATING HRS.	13-1/4	20-3/4
NOZZLE SIZE	11-12-B	11-12-B
CONDITION		
FT./HR.	87.2	46.40

W.O.B. 42,000#  
 RPM 80  
 H.L. 82,000#

PUMP: 102 SPM @ 1600 PSI

BHA:	1 - 8-3/4" BIT	.75
	1 - NBS	3.82
	1 - SHOCK SUB	17.21
	1 - IBS	5.23
	1 - DC	30.31
	1 - IBS	4.51
	17 - 6-1/8" DC	508.65
	6 - HWDP	177.59
	<b>TOTAL</b>	<b>748.07</b>

**NASSAU RESOURCES, INC.**  
**P O BOX 809**  
**FARMINGTON, N.M. 87499-0809**  
**505 326-7793**  
**FAX NUMBER 505 327-0859**  
**MORNING REPORT**  
**Four Corners Rig #4**

WELL: CARRACAS UNIT-PC 35 B #8                      DATE: 10-14-9  
 DEPTH @ 6:00 A.M.: 1437'                      OPERATION @ 6:00 AM: TRIPPING  
 FOOTAGE DRILLED LAST 24 HRS: 1112'                      DAYS SINCE SPUD: 2  
 OPERATIONS LAST 24 HRS:

HRS. 2 - TRIPPING  
 HRS. 13-1/4- DRILLING  
 HRS. 1/4- RIG SERVICE  
 HRS. 1 - SURVEYING  
 HRS. 7 - W.O.C.  
 HRS. 1/2- PRESSURE TEST, 1200 PSI. HELD OKAY.

**MUD PROPERTIES:**

WEIGHT	9.0	VIS	60	WATER LOSS	6.0
PH	9.0	SOLIDS	3%	OIL%	
PV	18	YP	12	SAND	TRACE

CUM MUD COST - \$3.630.00

SURVEYS: 1/2° AT 553'                      1-1/4° AT 991'  
 1° AT 774'                      1-1/2° AT 1189'

**BIT SUMMARY:**

SIZE	8-3/4"
MAKE	VAREL
SERIAL NO.	52846
TYPE	L-127
DEPTH IN	325'
DEPTH OUT	INC.
FTG. DRILD.	1112'
ROTATING HRS.	13-1/4
NOZZLE SIZE	11-12-B
CONDITION	
FT./HR.	87.2

W.O.B. 35,000#  
 RPM 90  
 H.L. 70,000#

PUMP: 102 SPM @ 1300 PSI

BHA:	1 - 8-3/4" BIT	.75
	1 - NBS	3.82
	1 - SHORT DC	9.70
	1 - IBS	5.23
	1 - DC	30.02
	1 - IBS	4.51
	17 - 6-1/8" DC	508.89
	4 - HWDP	177.59
	TOTAL	739.76

NASSAU RESOURCES, INC.  
 P O BOX 809  
 FARMINGTON, N.M. 87499-0809  
 505 326-7797  
 FAX NUMBER 505 327-0859

MORNING REPORT  
 Four Corners Rig #4

WELL: CARRACAS UNIT-PC 35 B #8 DATE: 10-13-93  
 Sec. 35, T32N, R4W  
 11340' FNL & 1085' FEL  
 Rio Arriba County, NM Elev. 7010' GL

DEPTH @ 6:00 A.M.: 325' OPERATION @ 6:00 AM: W.O.C.  
 FOOTAGE DRILLED LAST 24 HRS: 325' DAYS SINCE SPUD: 1  
 OPERATIONS LAST 24 HRS:

HRS. 10 - MOVE IN AND RIG UP  
 HRS. 1 - DRILLING RAT & MOUSE HOLE  
 HRS. 1/4 - CIRCULATING  
 HRS. 1-1/4 - TRIPPING  
 HRS. 5 - DRILLING  
 HRS. 1/2 - SURVEY  
 HRS. 1-1/2 - RUN 9-5/8" CASING  
 HRS. 1/2 - CEMENT  
 HRS. 4 - WOC

MUD PROPERTIES: SPUD MUD  
 WEIGHT 9.0 VIS 45 WATER LOSS N.C.

CUM MUD COST - \$995.00

SURVEYS: 1/2° AT 124' 1/4° AT 325'

BIT SUMMARY: BIT NO. 1  
 SIZE 12-1/4"  
 MAKE HTC  
 SERIAL NO. RT  
 TYPE OSC-3  
 DEPTH IN 0'  
 DEPTH OUT 325'  
 FTG. DRLD. 325'  
 ROTATING HRS. 5  
 NOZZLE SIZE 12-12-12  
 CONDITION  
 FT./HR. 65

W.O.B. ALL  
 RPM 120  
 H.L. 40,000#

PUMP: 102 SPM @ 1500 PSI

BHA: 1 - 12-1/4" BIT 1.00  
 1 - BIT SUB 3.62  
 10 - 6-1/4 D.C. 311.40  
 TOTAL 316.02

NASSAU RESOURCES, INC.  
CARRACAS UNIT-PC 35B #8

REMARKS: SPUDDED ON 10/12/93 AT 4:00 PM.  
RAN 7 JTS. OF 36#, K-55, 9-5/8" CASING (305.35').  
SET AT 318'. CEMENTED WITH 170 SX OF CLASS "B" WITH 2%  
CACL (201 CU.FT.) CIRCULATED 2 BBLs OF CEMENT TO  
SURFACE. PLUG DOWN AT 2:00 AM ON 10/13/93. WAITING ON  
CEMENT.

**McHUGH**  
March 8, 1991

Jerome P. McHugh & Associates  
Operating Affiliate: Nassau Resources, Inc.  
650 South Cherry, Suite 1225  
Denver, Colorado 80222-1894  
(303) 321-2111 FAX (303) 321-1563

'91 MAR 14 AM 8 52

United States Department of the Interior  
Bureau of Land Management  
Farmington Resource Area  
1235 La Plata Highway  
Farmington, N. M. 87401

New Mexico Oil Conservation Division  
310 Old Santa Fe Trail  
Room 206  
Santa Fe, N. M. 87503

Commissioner of Public Lands  
State of New Mexico  
P. O. Box 1148  
Santa Fe, N. M. 87501

Re: 1991 Plan of Development  
Carracas Canyon Unit Area  
Rio Arriba Co., N. M.

Gentlemen:

Pursuant to Article 10 of the Carracas Canyon Unit Agreement (No. 14-08-001-19596), Nassau Resources, Inc., Operator, hereby submits for your approval our 1991 Plan of Development (POD).

As of December 31, 1990 Nassau has drilled two Dakota wells, one water disposal well to the Entrada formation at a depth of 10,000 feet, and sixty (60) Fruitland Coal formation wells. Of the thirty-four (34) wells proposed in our 1990 Plan of Development, twenty-one were drilled during the 1990 calendar year. Thirteen wells were deferred for commencement at a later date, some of which will be repropoed for the 1991 drilling season.

The twenty-one wells drilled in 1990 and their cumulative production as of December 31, 1990 are as follows:

<u>Well Name/Formation/Location</u>	<u>Gas (MCF)</u>	<u>Water (BBL)</u>
1. Carracas 28B-#10 Fruitland SE/4 Sec. 28-T32N-R4W	26,776	1,570
2. Carracas 27B-#12 Fruitland SW/4 Sec. 27-T32N-R4W	10,066	1,200

#9030

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3. Carracas 30B-#16 Fruitland SE/4 Sec. 30-T32N-R4W	8,104	3,080
4. Carracas 26B-#13 Fruitland SW/4 Sec. 26-T32N-R4W	3,940	162
5. Carracas 15B-#14 Fruitland (Openhole comp.) SW/4 Sec. 15-T32N-R4W	9,672	387
6. Carracas 15A-#16 Fruitland SE/4 Sec. 15-T32N-R5W	9,760	4,550
7. Carracas 14B-#10 Fruitland SE/4 Sec. 14-T32N-R4W	2,232	623
8. Carracas 22B-#7 Fruitland NE/4 Sec. 22-T32N-R4W	8,762	541
9. Carracas 22B-#9 Fruitland SE/4 Sec. 22-T32N-R4W	172,122	447
10. Carracas 23B-#8 Fruitland NE/4 Sec. 23-T32N-R4W	117,356	105
11. Carracas 23B-#15 Fruitland SE/4 Sec. 23-T32N-R4W	168,562	55
12. Carracas 24B-#13 Fruitland SW/4 Sec. 24-T32N-R4W	13,232	38
13. Carracas 25B-#3 Fruitland NW/4 Sec. 25-T32N-R4W	60,524	69
14. Carracas 12B-#16 Fruitland SE/4 Sec. 12-T32N-R4W	3,402	740

15. Carracas 11B-#15 Fruitland SE/4 Sec. 11-T32N-R4W	3,080	135
16. Carracas 24B-#1 Fruitland NE/4 Sec. 24-T32N-R4W	4,787	4,273
17. Carracas 33B-#4 Fruitland NW/4 Sec. 33-T32N-R4W	0	0
18. Carracas 31B-#5 Fruitland NW/4 Sec. 31-T32N-R4W	Testing	0
19. Carracas 34B-#9 Fruitland SE/4 Sec. 34-T32N-R4W	6,722	0
20. Carracas 25B-#13 Fruitland SW/4 Sec. 25-T32N-R4W	Shut-in	0
21. Carracas 13B-#11 Fruitland SW/4 Sec. 13-T32N-R4W	Shut-in	0

As of the date of this letter, nine of the above listed wells are shut-in due to mechanical problems or are uneconomic in light of the current gas prices.

Our 1991 Plan of Development calls for an additional fifteen (15) wells to be drilled to the Fruitland Coal formation with their locations being as follows:

<u>Well Name</u>	<u>Drilling Block</u>
1. Carracas 10A-#8	N/2 Sec. 10-T32N-R5W
2. Carracas 10B-#15	All Sec. 10-T32N-R4W
3. Carracas 11A-#13	W/2 Sec. 11-T32N-R5W
4. Carracas 17B-#14	W/2 Sec. 17-T32N-R4W
5. Carracas 19B-#4	W/2 Sec. 19-T32N-R4W
6. Carracas 25A-#16	E/2 Sec. 25-T32N-R5W
7. Carracas 29B-#8	E/2 Sec. 29-T32N-R4W
8. Carracas 31B-#1	E/2 Sec. 31-T32N-R4W
9. Carracas 33B-#11	S/2 Sec. 33-T32N-R4W

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10. Carracas 36A-#1	E/2 Sec. 36-T32N-R5W
11. Carracas 36A-#5	W/2 Sec. 36-T32N-R5W
12. Carracas 36B-#11	W/2 Sec. 36-T32N-R4W

A copy of this letter is being provided to the list of working interest owners described on the attachment to this letter.

If you have any questions, feel free to call Gary Johnson or me at (303) 321-2111.

If the above described Plan of Development is acceptable, please signify your concurrence by executing and returning one copy of the attached consent sheet to my attention, per Section 10 of the Carracas Canyon Unit Agreement.

Very truly yours,



Kent C. Craig

/kcc

enclosure

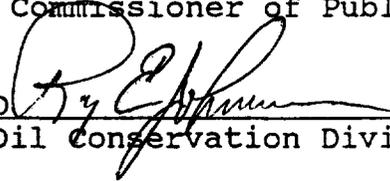
United States Department of the Interior, etal  
March 7, 1991  
Page 5

APPROVED: \_\_\_\_\_  
Bureau of Land Management

DATE: \_\_\_\_\_

APPROVED \_\_\_\_\_  
Commissioner of Public Lands

DATE: \_\_\_\_\_

APPROVED  \_\_\_\_\_  
Oil Conservation Division

DATE: 3-14-91

The foregoing approvals are for the 1991 Plan of Development  
filed by Nassau Resources, Inc. for the Carracas Canyon Unit,  
#14-08-001-19596, Rio Arriba Co., New Mexico.

March 8, 1991

CARRACAS CANYON UNIT WORKING INTEREST OWNERS

Amoco Production Company  
P. O. Box 800  
Denver, CO. 80201  
Attn: Michael Cuba

Grynberg Petroleum Company  
5000 South Quebec  
Suite 500  
Denver, CO. 80237-2707  
Attn: Susan Stone

Dugan Production Corp.  
P. O. Box 420  
Farmington, N. M. 87499  
Attn: Richard Corcoran

CNG Development Company  
One Park Ridge Center  
P. O. Box 15746  
Pittsburgh, PA. 15244  
Attn: Dwight F. Rychel

CERTIFICATION - DETERMINATION

Pursuant to the authority vested in the Secretary of the Interior, under the act approved February 25, 1920, 41 Stat. 437, as amended, 30 U.S.C. Secs. 181, et. seq., and delegated to the District Manager, Bureau of Land Management, under the authority of 43 CFR 3180, I do hereby:

- A. Approve the attached agreement for the development and operation of the Carracas Canyon Unit Area, Rio Arriba County, New Mexico.
- B. Certify and determine that the unit plan of development and operation contemplated in the attached agreement is necessary and advisable in the public interest for the purpose of more properly conserving the natural resources.
- C. Certify and determine that the drilling, producing, rental, minimum royalty, and royalty requirements of all Federal leases committed to said Agreement are hereby established, altered, changed or revoked to conform with the terms and conditions of this agreement.

Date: FEB 06 1987

  
\_\_\_\_\_  
For District Manager  
Bureau of Land Management  
Albuquerque, New Mexico

Contract Number: 14-08-0001-19596



United States Department of the Interior  
BUREAU OF LAND MANAGEMENT  
ALBUQUERQUE DISTRICT OFFICE

435 Montano N.E.  
Albuquerque, New Mexico 87107



IN REPLY REFER TO

FEB 11 1987

Carracas Canyon (GC)  
3180 (015)

Jerome P. McHugh and Associates  
c/o Edmundson and Associates  
P.O. Box 1707  
Denver, CO 80201

Gentlemen:

Your letter of January 30, 1987 requests that a suspension of operations and production be granted for 16 of the Federal leases committed to the Carracas Canyon unit agreement. Said leases are listed in Exhibit A (enclosed).

The Carracas Canyon unit agreement became effective January 30, 1987. The application for permit to drill for the initial unit well was filed with the New Mexico Oil Conservation Division on October 21, 1986. The Forest Service subsequently advised that it would not approve your special use application because of delay in cultural resources clearances and mule deer migration.

Therefore, pursuant to the provisions of 43 CFR 3103.4-2, approval of your application for suspension of operations and production on the leases shown on Exhibit A is granted. The suspension is effective January 1, 1987, the first day of the month in which the application was filed.

If lease operations are not commenced within 30 days following the Carson National Forest's approval of the special use application, the suspension will terminate automatically on the first of the month following such approval. Should the Forest Service decide not to approve the special use application, the suspension will terminate on the date that the decision became final. In the event that the Forest Service does not take any action, the suspension will terminate on September 30, 1987. If needed, another suspension application may be submitted.

Beginning January 1, 1987, rental payments required from the leases will be waived for each full lease month during which all operations and production are suspended.

If you have any questions on this matter, contact Shirley Bryant at the above address or telephone (505) 761-4503.

Sincerely,

District Manager

ACTING

Enclosure

Exhibit A

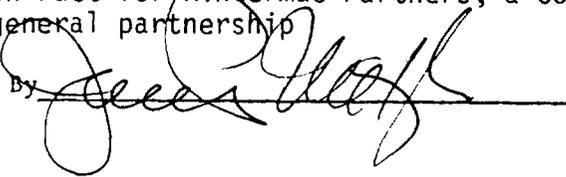
<u>Lease Number</u>	<u>Expiration Date</u>
NM-29339	3-31-87
NM-29340	1-31-87
NM-29341	1-31-87
NM-29342	1-31-87
NM-29343	3-31-87
NM-29760	4-30-87
NM-30014	4-30-87
NM-30015	5-31-87
NM-30016	4-30-87
NM-30351	5-31-87
NM-30584	7-31-87
NM-30585	3-31-87
NM-30586	7-31-87
NM-54974	2-28-88
NM-59696	3-31-95
NM-59704	1-31-95

1 30. SPECIAL SURFACE STIPULATIONS. Nothing in this agreement shall modify the 1  
2 special Federal lease stipulations attached to the individual Federal oil and gas 2  
3 leases. 3  
4

5 IN WITNESS WHEREOF, the parties hereto have caused this agreement to be exe- 5  
6 cuted and have set opposite their respective names the date of execution. 6  
7  
8

9 UNIT OPERATOR AND WORKING INTEREST OWNER 9

10  
11 JEROME P. McHUGH, Individually and as Attorney-in-Fact for Kindermac Partners, a Colorado 10  
12 general partnership 12  
13  
14

15 By  15  
16  
17

18 Address: 650 S. Cherry 18  
19 Suite 1225 19  
20 Denver, CO 80222 20

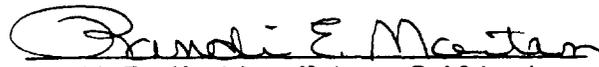
21 Date of Execution: 21

22 January 27, 1987 22  
23  
24

STATE OF COLORADO )  
 ) ss.  
COUNTY OF ARAPAHOE )

On this 27th day of January, 1987, before me personally appeared Jerome P. McHugh, to me known to be the person who executed the foregoing instrument as attorney-in-fact for and in behalf of Kindermac Partners, a Colorado general partnership, and acknowledged that he executed the same as the free act and deed of said Kindermac Partners.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

  
Randi E. Martin, Notary Public in  
and for said County and State.

Address: 650 S. Cherry St., Suite 1225  
Denver, Colorado 80222

My commission expires: September 26, 1990

STATE OF COLORADO )  
 ) ss.  
COUNTY OF ARAPAHOE )

On this 27th day of January, 1987, before me personally appeared Jerome P. McHugh, to me known to be the person who executed the foregoing instrument and acknowledged that he executed the same as his free act and deed.

IN WITNESS WHEREOF, I hereunto set my hand and official seal.

  
Randi E. Martin, Notary Public in  
and for said County and State.

Address: 650 S. Cherry St., Suite 1225  
Denver, Colorado 80222

My commission expires: September 26, 1990



STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION



GARREY CARRUTHERS  
GOVERNOR

January 29, 1987

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87501  
(505) 827-5800

Kellahin & Kellahin  
P. O. Box 2265  
Santa Fe, New Mexico 87504-2265

Attn: W. Thomas Kellahin

Re: Carracas Canyon Unit  
Townships 31 and 32 North  
Ranges 4 and 5 West,  
Rio Arriba County, New Mexico

Dear Mr. Kellahin:

Per your letter dated January 23, 1987 concerning deletion therefrom of irregular Section 18, Township 32 North, Range 5 West, NMPM, Rio Arriba County, New Mexico, which was erroneously included in Division Order No. R-8368, dated December 23, 1986. This deletion is hereby approved by the New Mexico Oil Conservation Division effective the date of said order. Such approval however, is contingent upon like approval by the United States Bureau of Land Management.

Sincerely,

A handwritten signature in black ink, appearing to read "William J. LeMay", written over the typed name and title.

William J. LeMay  
Director

WJL/MES/et

xc: Jerome P. McHugh  
U.S.B.L.M. Albuquerque  
Case No. 9030

STATE OF NEW MEXICO

ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION



GARREY CARRUTHERS  
GOVERNOR

January 29, 1987

*Case No. 9030*

POST OFFICE BOX 2088  
STATE LAND OFFICE BUILDING  
SANTA FE, NEW MEXICO 87501  
(505) 827-5800

Kellahin & Kellahin  
P. O. Box 2265  
Santa Fe, New Mexico 87504-2265

Attn: W. Thomas Kellahin

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Dear Mr. Kellahin:

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Sincerely,

A handwritten signature in cursive script, appearing to read "William J. LeMay".

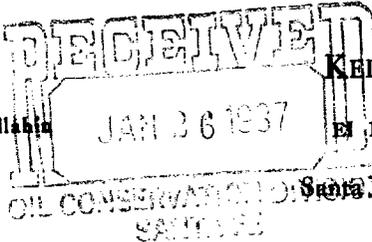
William J. LeMay  
Director

WJL/MES/et

xc: Jerome P. McHugh  
U.S.B.L.M. Albuquerque  
Case No. 9030

W. Thomas Kellahin  
Karen Aubrey

Jason Kellahin  
Of Counsel



KELLAHIN and KELLAHIN  
*Attorneys at Law*

El Patio - 117 North Guadalupe  
Post Office Box 2265  
Santa Fe, New Mexico 87504-2265

Telephone 982-4285  
Area Code 505

January 23, 1987

Mr. David R. Catanach  
Oil Conservation Division  
P. O. Box 2088  
Santa Fe, New Mexico 87504

Re: Jerome P. McHugh  
NMOCD Case 9030  
Order R-8368  
Carracas Canyon Unit

Dear Mr. Catanach:

We have received and reviewed the referenced Division Order dated December 23, 1986 (copy enclosed).

Subsequent to the hearing we have discovered that Section 18, T32N, R5W, is erroneously included in our application and should be deleted because that acreage is already included in another unit.

I have enclosed a copy of a portion of our exhibit at the hearing showing Section 18. This section contains only 177.17 acres. With its deletion, the total unit acreage is 30,174.74 acres consisting of 97.7% federal and 2.3% fee.

I am not certain if we can amend the order with a Nunc Pro Tunc Order or if we need to re-advertise this case. Please let me know how we can correct the error.

Very truly yours,

A handwritten signature in black ink, appearing to read "W. Thomas Kellahin".

W. Thomas Kellahin

WTK:ca  
Enc.

cc: Kent Craig  
Jerome P. McHugh & Associates  
650 South Cherry, Suite 1225  
Denver, Colorado 80222

STATE OF NEW MEXICO  
ENERGY AND MINERALS DEPARTMENT  
OIL CONSERVATION DIVISION

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

CASE NO. 9030  
Order No. R-8368

APPLICATION OF JEROME P. MCHUGH  
FOR A UNIT AGREEMENT, RIO ARRIBA  
COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on December 17, 1986, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 23rd day of December, 1986, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The applicant, Jerome P. McHugh, seeks approval of the Carracas Canyon Unit Agreement for all oil and gas in any and all formations underlying 30,351.91 acres, more or less, of Federal and Fee lands as described in Exhibit "A" attached hereto and made a part hereof.

(3) All plans of development and operation and creations, expansions, or contractions of participating areas or expansions or contractions of the unit area, should be submitted to the Director of the Division for approval.

(4) Approval of the proposed unit agreement should promote the prevention of waste and the protection of correlative rights within the unit area.

IT IS THEREFORE ORDERED THAT:

(1) The Carracas Canyon Unit Agreement is hereby approved for all oil and gas in any and all formations underlying those

lands described in Exhibit "A" attached hereto and made a part hereof.

(2) The plan contained in said unit agreement for the development and operation of the unit area is hereby approved in principle as a proper conservation measure; provided, however, notwithstanding any of the provisions contained in said unit agreement, this approval shall not be considered as waiving or relinquishing, in any manner, any right, duty, or obligation which is now, or may hereafter be, vested in the Division to supervise and control operations for the exploration and development of any lands committed to the unit and production of oil or gas therefrom.

(3) The unit operator shall file with the Division an executed original or executed counterpart of the unit agreement within 30 days after the effective date thereof; in the event of subsequent joinder by any party or expansion or contraction of the unit area, the unit operator shall file with the Division within 30 days thereafter counterparts of the unit agreement reflecting the subscription of those interests having joined or ratified.

(4) All plans of development and operation, all unit participating areas and expansions and contractions thereof, and all expansions or contractions of the unit area, shall be submitted to the Director of the Oil Conservation Division for approval.

(5) This order shall become effective upon the approval of said unit agreement by the Director of the appropriate agency of the United States Department of Interior; this order shall terminate ipso facto upon the termination of said unit agreement; and the last unit operator shall notify the Division immediately in writing of such termination.

(6) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO  
OIL CONSERVATION DIVISION

  
R. L. STAMETS,  
Director

S E A L

EXHIBIT "A"  
CASE 9030  
ORDER NO. R-8368  
CARRACAS CANYON UNIT  
RIO ARRIBA COUNTY, NEW MEXICO

TOWNSHIP 31 NORTH, RANGE 5 WEST, NMPM

Irregular Sections 1 and 2: All

TOWNSHIP 32 NORTH, RANGE 4 WEST, NMPM

Irregular Sections 7-12: All  
Sections 13-17 : All

Irregular Sections 18 and 19: All  
Sections 20-29: All

Irregular Sections 30 and 31: All  
Sections 32-36: All

TOWNSHIP 32 NORTH, RANGE 5 WEST, NMPM

Irregular Sections 7-13: All  
Sections 14-17: All

Irregular Section 18: All  
Section 21: E/2  
Sections 22 and 23: All

Irregular Section 24: All  
Sections 25-27: All  
Section 28: E/2  
Sections 34-36: All

Comprising 30,351.91 acres, more or less, of Federal  
and Fee (Patented) lands.



# McHUGH

Jerome P. McHugh & Associates  
Operating Affiliate: Nassau Resources, Inc.  
650 South Cherry, Suite 1225  
Denver, Colorado 80222  
(303) 321-2111 FAX (303) 321-1563

'90 APR 23 AM 9 19

9030

April 17, 1990

Bureau of Land Management  
Farmington Resource Area  
1235 La Plata Highway  
Farmington, New Mexico 87401  
Attention: Mr. John Keller

New Mexico Oil Conservation Division  
310 Old Santa Fe Trail  
Suite 206  
Santa Fe, New Mexico 87503

Commissioner of Public Lands  
State of New Mexico  
P. O. Box 1148  
Santa Fe, New Mexico 87501

Re: Application for Approval of  
Non-Paying Well Determination  
See attached listing  
Fruitland Coal Formation  
Rio Arriba County, New Mexico

Gentlemen:

Nassau Resources, Inc., as Unit Operator for the Carracas Canyon Unit, respectfully requests your approval, pursuant to Section 11 of the Unit Agreement, of its determination that the wells on the attached list are not capable of production in paying quantities and inclusion of the lands on which the wells are situated in a participating area is unwarranted. Descriptions of the drillblocks for these wells are also on the attached listing

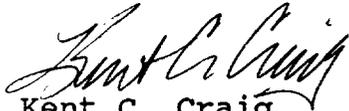
In support of these non-paying well determinations, enclosed are engineering reports with attachments for each well which reflect that these wells are not capable of producing in paying quantities.

Pursuant to Section 11 of the Unit Agreement, Nassau requests that the effective date of each non-paying well determination be the date of first sales as indicated on the attached listing.

Bureau of Land Management, et al  
April 17, 1990  
Page Two

Feel free to call Gary Johnson or myself at (303) 321-2111  
should you have any questions.

Very truly yours,



Kent C. Craig

KCC/rc

enclosures

Well Listing  
 Application for Approval of  
 Non-Paying Well Determination

	<u>Well Name</u>	<u>Drillblock</u>	<u>Date of First Sales</u>
1.	Arboles 20A #1Y	S/2 Sec. 20-T32N-R4W	05/01/89
2.	Carracas 13A-#15	E/2 Sec. 13-T32N-R5W	05/01/89
3.	Carracas 18B-#13	W/2 Sec. 18-T32N-R4W	05/01/89
4.	Carracas 20B-#3	N/2 Sec. 20-T32N-R4W	05/01/89
5.	Carracas 24A-#4	W/2 Sec. 24-T32N-R5W	05/02/89
6.	Carracas 16B-#12	S/2 Sec. 16-T32N-R4W	05/02/89
7.	Carracas 23A-#2	N/2 Sec. 23-T32N-R5W	06/15/89
8.	Carracas 18B-#15	E/2 Sec. 18-T32N-R4W	06/17/89
9.	Carracas 27A-#8	E/2 Sec. 27-T32N-R5W	06/30/89
10.	Carracas 16B-#6	N/2 Sec. 16-T32N-R4W	07/27/89
11.	Carracas 26A-#2	E/2 Sec. 26-T32N-R5W	07/27/89
12.	Carracas 17B-#15	E/2 Sec. 17-T32N-R4W	07/28/89
13.	Carracas 23A-#12	S/2 Sec. 23-T32N-R5W	08/22/89
14.	Carracas Mesa 14-1	N/2 Sec. 14-T32N-R4W	08/28/89
15.	Carracas 28B-#5	W/2 Sec. 28-T32N-R4W	09/01/89
16.	Carracas 21B-#5	N/2 Sec. 21-T32N-R4W	10/03/89
17.	Carracas 24A-#7	E/2 Sec. 24-T32N-R5W	10/12/89
18.	Carracas 32B-#5	N/2 Sec. 32-T32N-R4W	10/12/89
19.	Carracas 21A-#15	E/2 Sec. 21-T32N-R5W	10/23/89
20.	Carracas 21B-#13	S/2 Sec. 21-T32N-R4W	10/23/89
21.	Arboles 29A #1	W/2 Sec. 29-T32N-R4W	10/24/89
22.	Carracas 27B-#5	N/2 Sec. 27-T32N-R4W	10/26/89
23.	Carracas 22A-#13	W/2 Sec. 22-T32N-R5W	10/26/89
24.	Carracas 14A-#13	S/2 Sec. 14-T32N-R5W	11/01/89
25.	Carracas 22A-#16	E/2 Sec. 22-T32N-R5W	11/07/89
26.	Carracas 30B-#8	N/2 Sec. 30-T32N-R4W	11/07/89
27.	Carracas 19B-#1	E/2 Sec. 19-T32N-R4W	11/17/89
28.	Carracas 35A-#8	E/2 Sec. 35-T32N-R5W	12/01/89
29.	Carracas 13A-#14	W/2 Sec. 13-T32N-R5W	02/16/90
30.	Carracas 36B-#15	E/2 Sec. 36-T32N-R4W	02/23/90

# McHUGH

Jerome P. McHugh & Associates  
Operating Affiliate: Nassau Resources, Inc.  
650 South Cherry, Suite 1225  
Denver, Colorado 80222  
(303) 321-2111 FAX (303) 321-1563

'90 MAR 5 AM 10 16

March 1, 1990

Bureau of Land Management  
Farmington Resource Area  
1235 La Plata Highway  
Farmington, New Mexico 87401  
Attention: Mr. John Keller

D -  
UNIT LETTER  
THX  
Ry

New Mexico Oil Conservation Division  
310 Old Santa Fe Trail  
Suite 206  
Santa Fe, New Mexico 87503

Commissioner of Public Lands  
State of New Mexico  
P. O. Box 1148  
Santa Fe, New Mexico 87501

Re: Application for Approval of  
Non-Paying Well Determination  
Carracas 27A-#14  
Fruitland Coal Formation  
Rio Arriba County, New Mexico

Gentlemen:

Nassau Resources, Inc., as Unit Operator for the Carracas Canyon Unit, respectfully requests your approval, pursuant to Section 11 of the Unit Agreement, of its determination that the Carracas 27A-#14 well is not capable of production in paying quantities and inclusion of the land on which the well is situated in a participating area is unwarranted. The drillblock for the Carracas 27A-#14 is the W/2 of Section 27-T32N-R5W.

In support of this non-paying well determination, enclosed is an engineering report with attachments which reflects that this well is not capable of producing in paying quantities.

Pursuant to Section 11 of the Unit Agreement, Nassau requests that the effective date of the non-paying well determination be March 1, 1989, the date of first sales.

Bureau of Land Management, et al  
March 1, 1990  
Page Two

Feel free to call Gary Johnson or myself at (303) 321-2111  
should you have any questions.

Very truly yours,

Kent C. Craig

KCC/rc

enclosures

## **ENGINEERING REPORT**

### Carracas Unit 27 A #14

Section 27, T32N, R5W, NMPM  
Rio Arriba County, New Mexico

Carracas Unit 27 A #14, located 970 feet from the south line and 1,580 feet from the west line of Section 27, Township 32 North, Range 5 West, was spudded on September 26, 1988. Total depth of 3,715 feet was reached on October 2, 1988, and 5.5 inch 15.5/17 lb/ft casing was set. The Fruitland Coal formation was perforated from 3,547 feet to 3,588 feet with 124 holes at 4 shots per foot. The well was plugged back to a PBTD of 3,664 feet.

On November 2, 1988 the Fruitland formation was fracture stimulated with 2,245 bbl MMIIB-30 fluid and 203.6M pounds of 20/40 and 40/70 sand at an average treating rate of 52 barrels per minute.

During 24-hour testing on March 8, 1989 the well produced 68 mcf gas and 220 bbl water on a .5" choke with 100 psi casing and 100 psi flowing tubing pressure. Gas was first delivered into Northwest Pipeline on March 23, 1989. Production continued through the end of March at a rate of 102 mcf/d and subsequently fluctuated between 70 and 90 mcf/d through December, with occasional pump and compressor problems. Field reports indicate current production to be approximately 90-100 mcf/d.

## **ECONOMICS**

Calculations used for rendering performance predictions and estimating payout for this unit are presented on the following Economics Exhibit.

**Economics Exhibit**  
 February 15, 1990  
 Application for Approval of  
 Participating Area  
 CCU 27A14

Well Costs:

Leasehold	20 \$M
Tangible:	305 \$M
Intangible:	175 \$M
Total:	500 \$M

Monthly Operating Cost: \$3300 per month for 8 months  
then \$2000 per month escalating @ 4%

General & Administrative Costs: \$350 per month

Working Interest: 100%  
Net Revenue Interest: 75%

Discount Rate: 10%

Combined Tax Burden: 24%

Gas Price: \$ 1.25 constant

Date of First Production: March, 1989  
Initial Production Rate: 3000 MCFM

Calculated Economic Reserves: 1500 MMCF

Year	Gross Prod MMCF	Net Prod MMCF	Net Cash Operating Income \$M	Payout Status \$M Discounted 10%
0	22.273	16.705	(13.535)	(508.964)
1	41.989	31.491	5.357	(504.436)
2	59.979	44.984	17.215	(491.156)
3	85.680	64.260	34.567	(466.973)
4	107.580	80.685	49.211	(435.659)
5	108.106	81.080	48.626	(407.651)

Discount Rate: 10%

Payout: n/a

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

(See other In-  
structions on  
reverse side)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG\*

1a. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other WATER ROOM

b. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEP EN  PLUG BACK  DIFF. RESER.  Other 09 MAR 16 AM 11:42

2. NAME OF OPERATOR  
NASSAU RESOURCES, INC.

3. ADDRESS OF OPERATOR  
P O Box 809, Farmington, N.M. 87499

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface  
970' FSL - 1580' FWL  
At top prod. interval reported below

At total depth

14. PERMIT NO. DATE ISSUED  
8/12/88

15. DATE SPOUDED 9/26/88  
16. DATE T.D. REACHED 10/2/88  
17. DATE COMPL. (Ready to prod) 3/2/89

18. ELEVATIONS (OF. RKB, RT, CB, ETC.)\* 6841' GL; 6853' KB  
19. ELEV. CASINGHEAD 6841' GL

20. TOTAL DEPTH, MD & TVD 3715' KB  
21. PLUG BACK T.D., MD & TVD 3664'

22. IF MULTIPLE COMPL., HOW MANY\* NA  
23. INTERVALS DRILLED BY TD

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*  
3547' - 3588' KB, Fruitland Coal

25. WAS DIRECTIONAL SURVEY MADE No

26. TYPE ELECTRIC AND OTHER LOGS RUN Dual Induction, Litho-Den./Comp. Neutron, CN-Form, Density, Digital Sonic, Coal Log, GR-CBI, Cyberlook  
27. WAS WELL CORED Yes

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9-5/8"	36#	369' KB	12-1/4"	224 cu.ft. circ. to surf.	-----
5-1/2"	15.5#	3710' KB	8-3/4"	1260 cu.ft. circ. to surf.	-----
				See reverse.	

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
NONE				

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-7/8"	3463' KB	-----

31. PERFORATION RECORD (Interval, size and number)

3547' - 3573' KB
3576' - 3582' KB
3584' - 3588' KB
All 4 spf; total of 124 holes

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
3547' - 3588' KB	12,100# 40/70 sand,
	191,500# 20/40 sand,
	2245 bbls. MNIIB-30 Fluid

33. PRODUCTION

DATE FIRST PRODUCTION	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump)	WELL STATUS (Producing or shut-in)
11/7/88*	Pumping	SI

DATE OF TEST	HOURS TESTED	CHOKER SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
3/8/89	24	0.500"	→	-----	68	220	-----

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
100	100	→	-----	68	220	-----

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) Vented during test, To be sold.

TEST WITNESSES: Elmer Perry  
FARMINGTON RESOURCE AREA  
BY SAM

35. LIST OF ATTACHMENTS  
\* 1st hydrocarbons to well bore

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records

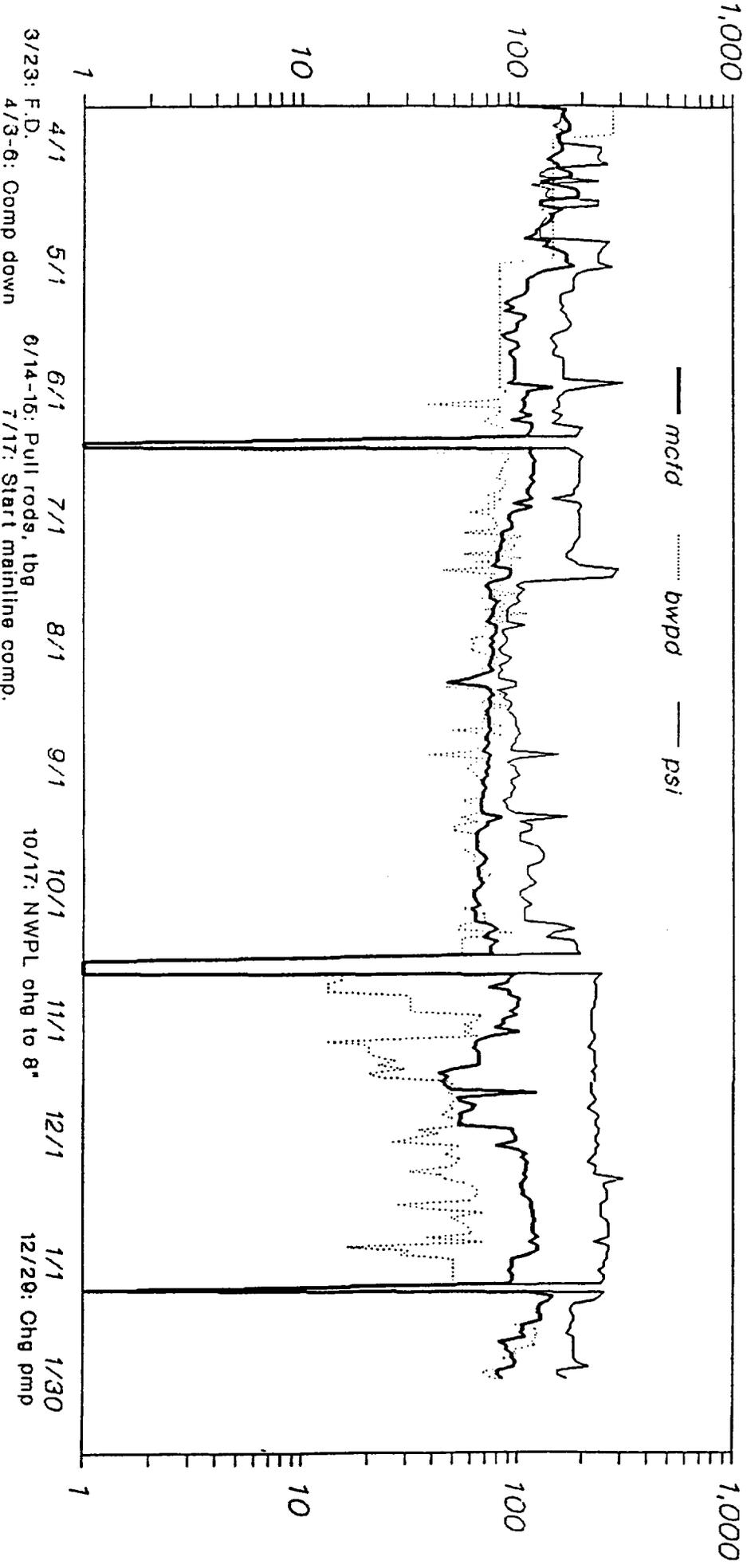
SIGNED Fran Perrin TITLE Admin. Asst. DATE 3/15/89

\*(See Instructions and Spaces for Additional Data on Reverse Side)

OPERATOR

NOTE: GROSS FIELD PRODUCTION ONLY  
RATES DO NOT REFLECT ACTUAL SALES VOLUMES

NASSAU RESOURCES, INC.  
CCU 27-A 14



NASSAU RESOURCES, INC.  
Carracas Unit 27 A #14

- 3-15-89 MI & RU Service Unit.  
TOOH with rods and pump.  
RU BOP and released anchor.  
Cleaned out 80' of fill (coal & frac sand).  
Circulated hole clean and landed 2-7/8" tubing.  
Set anchor and RD BOP.
- 3-16-89 RU well head and TIH with 2-1/2" x 2" x 12' RWAC  
Axelson pump with 2' Martin w/ AP wipers,  
3/4" pin and 1-5/8" Fishing neck.  
Ran and seated pump.  
Nippled up well head and well pumped up in 10 minutes.  
Rigged down.
- 3-17-89 MI & RU Service Unit.  
Pump stuck.  
TOOH with rods and pump.  
Rigged up BOP & cleaned out 80' of fill.  
Circulated clean.  
SION.
- 3-20-89 TIH. No fill.  
Rigged up and swabbed 6 hrs.  
TIH & found 10' of fill.  
Landed tbg. & TIH w/ rods & 2-1/2" x 2" x 12' RWAC-EQ  
pump (Service Pump).  
Nippled up well head & started unit.  
Rigged down.
- 6-15-89 MI & RU Service unit.  
RU well head and TOOH with pump and rods.  
RU BOP and TIH. Tagged 10' of fill. Re-landed tubing.  
TIH with Axelson 2-1/2" x 2" x 12' RWAC-LEQ pump.  
Rerun rods and seated pump.  
RU well head and started pump jack.
- 12-28-89 MI & RU service unit.  
TOOH with bad pump and rod string.  
TIH with rebuilt 2-1/2" x 2" x 12' RWAC pump and rod  
string.  
Nippled up pump jack.  
Checked pump action.  
Rigged down.

NASSAU RESOURCES, INC.  
Carracas Unit 27 A #14

- 11-3-88 SIP 400 psi.  
Opened well to pit thru 1/4" choke.  
Pressure after 2 hrs. flowing 220 psi.  
Pressure after 8 hrs. flowing 50 psi.  
Left well flowing to pit over night.
- 11-4-88 Well flowing to pit thru 1/4" choke at 45 psi.  
Changed to 0.500" choke and well started making sand.  
Changed to 0.250" cchoke and left well flowing to pit.
- 11-5-88 Well flowing to pit at 15 psi.  
Opened well thru 2" choke and TIH with 2-7/8" tubing.  
Tagged sand at 3546' and circulated hole clean to  
PSTD.  
Landed 115 jts. of 2-7/8", 8 Rd., EUE tubing with notch  
collar at 3585' and seating nipple at 3553' KB.  
RU 0.250" choke off tubing and left flowing to pit with  
25 psi on casing.
- 11-6-88 Flowing to pit.
- 11-7-88 Well flowing to pit at 98 mcf/d gas and approximately  
210 bbls. water per day.  
SI. Moved rig off.
- 2-16-89 MI & RU Service Unit.  
RU BOP and TOOH with 2-7/8" tubing.
- 2-17-89 RU & TIH with Giberson tubing anchor.  
Set anchor at 3463' KB with 111 jts. of 2-7/8" tubing  
on top. Anchor set with 8,000# tension with  
40,000# shear pins.  
Nipped up well head and SI.
- 2-21-89 RU wireline and ran static bottom hole pressure w/  
B & R Service.  
RU & TIH as follows:
- 1 2-1/2" x 2" x 12' RWAC-LEQ pump (Service Pumps)
  - 140 3/4" grade "D" Axelson plain rods
  - 1 3/4" x 6' pony rod
  - 1 3/4" x 4' pony rod
  - 1 1-1/4" x 22' polish rod
  - 1 1-1/4" x 1-1/2" x 12' liner
- Nipped up well head & PJ.  
Rigged down rig.

JEROME P. MCHUGH/NASSAU RESOURCES, INC.  
 P.O. BOX 809  
 FARMINGTON, N.M. 87499-0809  
 505 326-7793

## MORNING REPORT

Carracas Unit 27 A #14

- 10-27-88 MI & RU Service Unit. Installed BOP, pump and pit.
- 10-28-88 TIH with 4-3/4" bit, 5-1/2" casing scraper and 2-7/8" work string.  
 Cleaned out to 3768'. Circulated hole clean.  
 RU and pressure test to 3500 psi. Test good.  
 SION.
- 10-29-88 SI.
- 10-30-88 SI.
- 11-1-88 SI. Waiting on frac crew.
- 11-2-88 RU Western Company and frac with MMIIB-30 Fluid as follows:
- |             |         |            |
|-------------|---------|------------|
| 45,000 gal. | Pad     |            |
| 2,000 gal.  | 1#/gal. | 40/70 sand |
| 4,000 gal.  | 2#/gal. | 40/70 sand |
| 5,000 gal.  | 2#/gal. | 20/40 sand |
| 6,000 gal.  | 3#/gal. | 20/40 sand |
| 7,000 gal.  | 4#/gal. | 20/40 sand |
| 8,000 gal.  | 5#/gal. | 20/40 sand |
| 8,000 gal.  | 6#/gal. | 20/40 sand |
| 5,930 gal.  | 8#/gal. | 20/40 sand |
| 3,360 gal.  | flush   |            |
- Pumped 12,100# of 40/70 sand and 191,500# 20/40 sand.  
 Max pressure 2500 psi at 52 bbl./min.  
 Average pressure 2100 psi at 50 bbl./min.  
 ISIP - 1000 psi.  
 5 minutes SI - 900 psi  
 10 minutes SI - 850 psi  
 15 minutes SI - 800 psi  
 Load to recover 2245 bbls.  
 SION.
- 11-3-88 SIP 400 psi.  
 Opened well to pit thru 1/4" choke.  
 Pressure after 2 hrs. flowing 220 psi.  
 Pressure after 8 hrs. flowing 50 psi.  
 Left well flowing to pit over night.



APR 11 1990

RECEIVED  
NEW MEXICO DIVISION

'90 APR 11 AM 8 43

Carracas Canyon Unit (PA)  
3180 (019)

APR 09 1990

Jerome P. McHugh and Associates  
Attn: Mr. Kent C. Craig  
650 South Cherry, Suite 1225  
Denver, CO 80222

Gentlemen:

By letter dated March 5, 1990, we received a Notice of Completion of Non-Commercial well, Fruitland Coal Formation, Rio Arriba County, New Mexico. Jerome P. McHugh and Associates, as unit operator, has determined that the Carracas 27A well 14 (SE/4SW/4 section 27, T. 32 N., R. 5 W.) is not capable of producing unitized substances in paying quantities from the Fruitland Coal Formation. This notice is hereby accepted for the record.

If you have any questions, please contact Gail Keller at the above address or telephone (505) 327-5344.

Sincerely,

*[Handwritten signature]*

John L. Keller, Chief  
Branch of Mineral Resources

Enclosures

cc: New Mexico Oil Conservation Division, 310 Old Santa Fe Trail,  
Room 206, Santa Fe, NM 87503

# McHUGH

Jerome P. McHugh & Associates  
Operating Affiliate: Nassau Resources, Inc.  
650 South Cherry, Suite 1225  
Denver, Colorado 80222  
(303) 321-2111 FAX (303) 321-1563

100100 5 9 10 10

March 1, 1990

New Mexico Oil Conservation Division  
310 Old Santa Fe Trail  
Suite 206  
Santa Fe, New Mexico 87503

Commissioner of Public Lands  
State of New Mexico  
P. O. Box 1148  
Santa Fe, New Mexico 87501

Re: Application for Approval of  
Initial Fruitland Coal  
Participating Area "A"  
Carracas Canyon Unit  
No. 14-08-0001-19596  
Rio Arriba County, New Mexico

Gentlemen:

Enclosed for your review is a copy of Nassau's Application for Approval of the Initial Fruitland Coal formation Participating Area "A" for our Carracas Canyon Unit. Said application was originally submitted to the Bureau of Land Management on August 28, 1989 and was subsequently approved on December 6, 1989 (copy attached).

Due to an error on our part, we failed to submit this application to you concurrently with our application to the BLM. We apologize for any inconvenience this may have caused.

If you are in agreement with the BLM's approval, please execute one copy of the attached signatory page and return it to my attention. Thank you.

Very truly yours,



Kent C. Craig

KCC/rc

enclosures

APPROVED: \_\_\_\_\_  
Commissioner of Public Lands

DATE: \_\_\_\_\_

APPROVED:  \_\_\_\_\_  
Oil Conservation Division

DATE: 3-6-90

The foregoing approvals are for the Initial Fruitland Coal Formation Participating Area "A" in the Carracas Canyon Unit, Rio Arriba County, New Mexico.

# MCHUGH

Jerome P. McHugh & Associates  
Operating Affiliate: Nassau Resources, Inc.  
650 South Cherry, Suite 1225  
Denver, Colorado 80222  
(303) 321-2111 FAX (303) 321-2111

RECEIVED  
MAIL ROOM

SEP - 1 AM 11:28

FARMINGTON RESOURCE AREA  
FARMINGTON, NEW MEXICO

August 28, 1989

Bureau of Land Management  
Farmington Resource Area  
1235 La Plata Highway  
Farmington, New Mexico 87401

Attention: Mr. John Keller

MINERAL BRANCH	
BRANCH CHIEF	_____
SOLIDS	_____
FLUIDS D&P	_____
FLUIDS I&E	_____
ENV	_____
I & E-E	_____
I & E-W	_____
ALL SUPV	_____
FILES	_____

Re: Application for Approval of the  
Initial Fruitland Coal Formation  
Participating Area "A"  
Carracas Canyon Unit  
No. 14-08-0001-19596  
Rio Arriba County, New Mexico

Gentlemen:

Nassau Resources, Inc., as Unit Operator for the Carracas Canyon Unit, respectfully requests your approval, pursuant to Section 11 of the Unit Agreement, of the selection of the lands indicated on the land ownership map, attached as Exhibit "A", to constitute the Initial Fruitland Coal Formation Participating Area "A" which encompasses 320.00 acres.

The schedule of lands attached hereto as Exhibit "B" describes those lands within the Initial Fruitland Coal Formation Participating Area "A" and indicates the percentage of participation of each lease and tract within said area.

The Initial Fruitland Coal Formation Participating Area "A" is appropriate by virtue of the information obtained from the completion of the Carracas Unit #34A-5 located in the SW/4NW/4 of Section 34-T32N-R5W, N.M.P.M. The Carracas Unit #34A-5 was spudded on September 30, 1987, drilled to a total depth of 8,160 feet to the Dakota formation, plugged back to the Fruitland Coal formation, perforated in the Fruitland Coal formation, subsequently stimulated on July 11, 1988, and completed as a producing gas well on September 14, 1988. Initial production was tested at 65 MCFD and has risen to a rate of approximately 110 MCFD since the well was connected in January of this year.

Pursuant to Section 11 of the Unit Agreement, the effective date of the Initial Fruitland Coal Formation Participating Area "A" should be September 14, 1988.

Bureau of Land Management  
August 28, 1989  
Page Two

We, therefore, request your approval as to the lands/leases indicated on Exhibits "A" and "B" for the Initial Fruitland Coal Formation Participating Area "A" effective September 14, 1988.

Feel free to call Gary Johnson or myself at (303) 321-2111 should you have any questions.

Very truly yours,



Kent C. Craig

KCC/rc

enclosures

**APPROVED**

DEC 05 1989  
*John Kellum*  
For **AREA MANAGER**



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
FARMINGTON RESOURCE AREA  
1235 LAPLATA HIGHWAY  
FARMINGTON, NEW MEXICO 87401



IN REPLY REFER TO:

Carracas Canyon Unit (PA)  
3180 (019)

DEC. 06 1989

Jerome P. McHugh & Associates  
Attn: Kent C. Craig  
650 South Cherry, Suite 1225  
Denver, CO 80222

Gentlemen:

We have received your letter of August 28, 1989, requesting the approval of the Initial Participating Area, Basin Fruitland Coal Formation, Carracas Canyon Unit, Rio Arriba County, New Mexico.

The application for approval of the Initial Participating Area seeks to add 320 acres described as the N/2 section 34, T. 32 N., R. 5 W., to the Fruitland Coal Initial Participating Area. Contributing to this area is the completion of the Carracas Unit 34A well No. 5, NW/4 section 34, T. 32 N., R. 5 W.. The Initial Participating Area was approved on this date and is effective January 1, 1989.

If you have any questions, please contact Gail Keller at the above address or telephone (505) 327-5344.

Sincerely,

John Keller  
Chief, Branch of Minerals

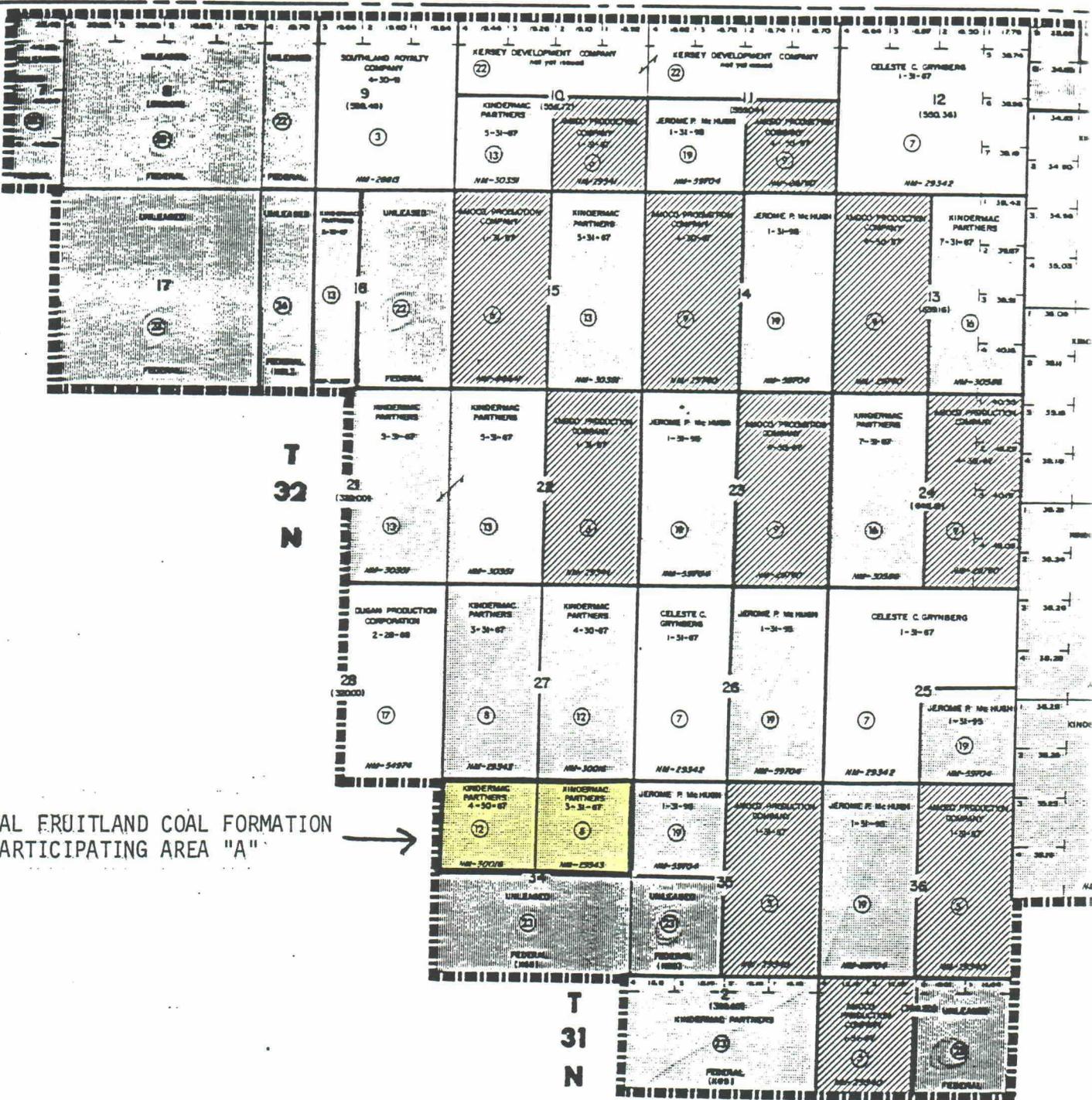
Enclosure

cc: Minerals Management Service, RMP, P. O. Box 25165, Denver, CO 80223  
New Mexico Oil Conservation Division, State Land Office Building,  
P. O. Box 2088, Santa Fe, NM 87504

RECEIVED  
DEC 11 1989  
Ans'd.....

R 5 W

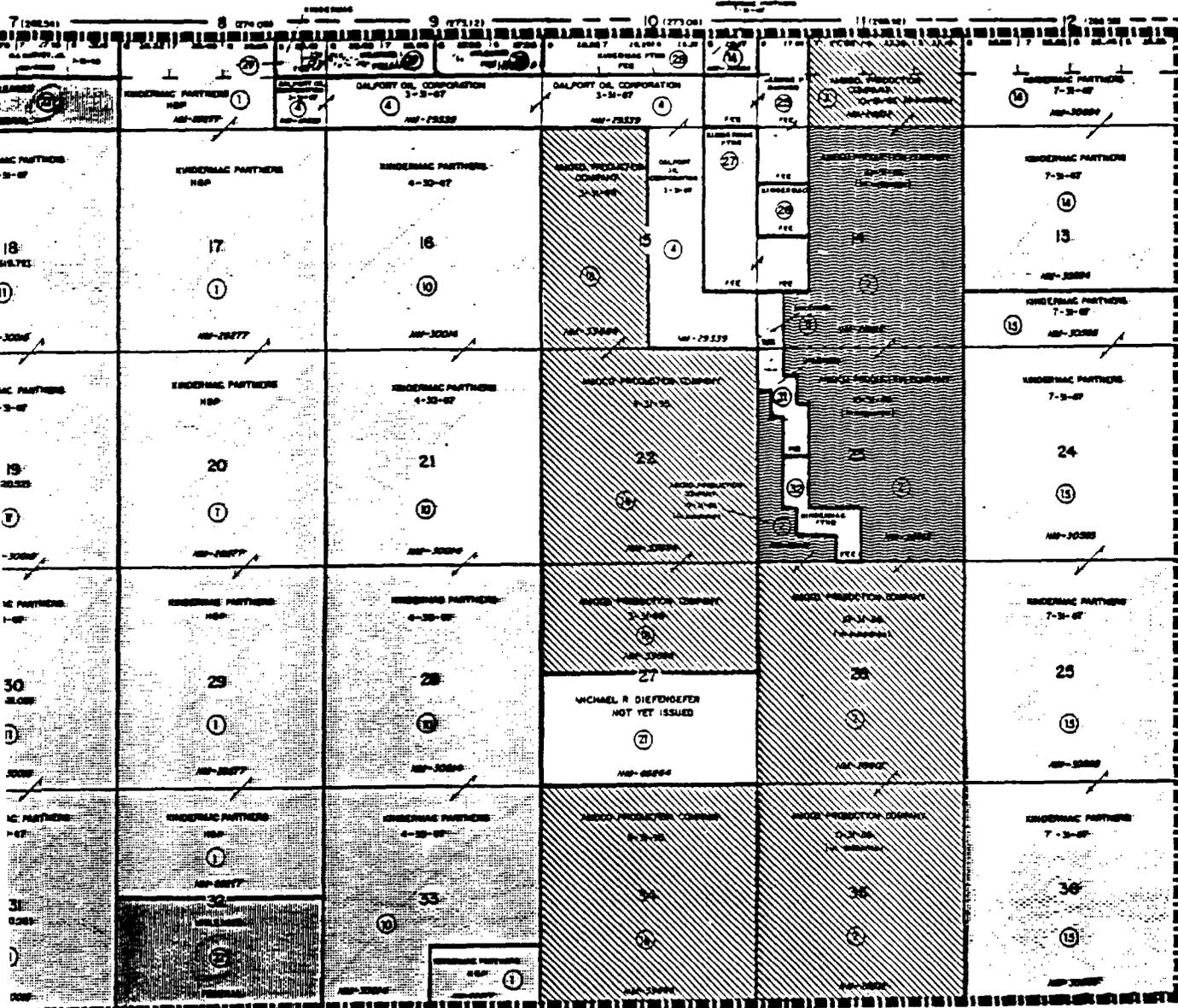
COLORADO



INITIAL FRUITLAND COAL FORMATION PARTICIPATING AREA "A" →

R 5 W

R 4 W



T  
32  
N

R 4 W

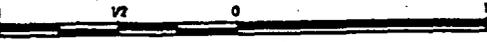
EXHIBIT "A"

# CARRACAS CANYON UNIT AREA

RIO ARRIBA COUNTY, NEW MEXICO

	ACREAGE	PERCENTAGE
FEDERAL LANDS	29,480.30	97.70 %
PATENTED LANDS	694.44	2.30 %
<b>TOTALS</b>	<b>30,174.74</b>	<b>100.00 %</b>

③ TRACT NUMBER  
 UNIT OUTLINE



SCALE IN MILES

UNLESS OTHERWISE INDICATED, THE VARIOUS SECTIONS ON THIS PLAT CONTAIN 640.00 ACRES.

**NASSAU RESOURCES, INC.**  
 DENVER, COLORADO

EXHIBIT "B"  
 INITIAL FRUITLAND COAL FORMATION PARTICIPATING AREA "A"  
 CARRACAS CANYON UNIT AREA  
 RIO ARRIBA COUNTY, NEW MEXICO

TRACT NO.	LEASE NO. OR TYPE OF LAND	DESCRIPTION	PARTICIPATING ACRES	PERCENT OF PARTICIPATION
8	NM-29343	T32N-R5W, N. M. P. M. Sec. 34: NE/4	160	50.00%
12	NM-30016	T32N-R5W, N. M. P. M. Sec. 34: NW/4	160	50.00%
Totals			320	100.00%
SUMMARY				

TYPE LAND	COMMITTED ACRES	NON-COMMITTED ACRES	PERCENT
Federal	320	-0-	100.00%
State	-0-	-0-	-0-
Patented	-0-	-0-	-0-
TOTAL	320	-0-	100.00%

## **ENGINEERING REPORT**

Carracas Unit 34 A #5  
Section 34, T32N, R5W, NMPM  
Rio Arriba County, New Mexico

Carracas Unit 34 A #5, located 1,850 feet from the north line and 1,190 feet from the west line of Section 34, Township 32 North, Range 5 West, was spudded on September 30, 1987. Total depth of 8,160 feet was reached on October 16, 1987, and 5.5 inch 15.5/17 lb/ft casing was set. The Dakota formation was perforated from 8,009 feet to 8,092 feet and fracture stimulated unsuccessfully. A bridge plug was set at 7,950 feet, the Dakota formation was abandoned and the well was plugged back to 3,207 feet.

On July 8, 1988 the Fruitland formation was perforated from 3,080 feet to 3,137 feet with a total of 116 shots @ approximately 2 shots per foot.

The well was fracture stimulated on July 11, 1988 with 2,299 barrels of gelled water and 195M pounds of 40/70 and 12/20 sand at an average treating rate of 52 barrels per minute.

During 24-hour testing on September 14, 1988 the well produced 65 mcf gas and 180 bbl water on a .5" choke with 50 psi casing and 50 psi flowing tubing pressure. Gas was first delivered into Northwest Pipeline on January 3, 1989. Production continued through January at a rate of 45 mcf/d and subsequently increased to 70 mcf/d in February, and 89 mcf/d in March; pump and compressor problems in April decreased the rate to 75 mcf/d, but production in May returned to 89 mcf/d. Preliminary field reports indicate another increase in June, to approximately 110 mcf/d.

## **ECONOMICS**

Calculations used for rendering performance predictions and estimating payout for this unit are presented on the following Economics Exhibit.

**Economics Exhibit**  
**August 15, 1989**  
**Application for Approval of**  
**Participating Area**  
**CCU 34A5**

**Well Costs:**

Leasehold	20 \$M
Tangible:	305 \$M
Intangible:	175 \$M
Total:	500 \$M

Monthly Operating Cost: \$3400 per month for 18 months  
then \$1500 per month escalating @ 4%

General & Administrative Costs: \$350 per month

Working Interest: 100%  
Net Revenue Interest: 80%

Discount Rate: 10%

Severance Tax: 4.39% <sup>3.75</sup>  
Ad Valorem Tax: .64%

Gas Price: \$ 1.50 constant

Date of First Production: January, 1989  
Initial Production Rate: 3000 MCFM

**Calculated Economic Reserves: 1500 MMCF**

Year	Gross Prod MMCF	Net Prod MMCF	Net Cash Operating Income \$M	Payout Status \$M Discounted 10%
0	49.617	39.694	11.941	(484.819)
1	87.906	70.324	67.191	(427.743)
2	127.913	102.330	123.874	(331.851)
3	172.631	138.105	174.472	(209.375)
4	180.000	144.000	182.209	( 93.407)
5	180.000	144.000	181.489	11.154

Discount Rate: 10%

Payout: 4.75 years

UN. STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLIC

Budget Bureau No. 1004-0137  
Expires August 31, 1985

(See instructions on reverse side)

WELL COMPLETION OR RECOMPLETION REPORT AND LOG\*

1. TYPE OF WELL: OIL WELL  GAS WELL  DRY  Other

2. TYPE OF COMPLETION: NEW WELL  WORK OVER  DEEPEN  PIPE BACK  DIFF. DEPTH  Other

3. NAME OF OPERATOR  
NASSAU RESOURCES, INC.

4. ADDRESS OF OPERATOR  
P.O. Box 809, Farmington, N.M. 87499

5. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface  
1850' FNL - 1190' FWL  
At top prod. interval reported below  
At total depth

14. PERMIT NO. DATE ISSUED  
9/18/87

13. DATE SPUDDED 16. DATE T.D. REACHED 17. DATE COMPL. (Ready to prod.) 18. ELEVATIONS (DP, RKB, RT, GR, ETC.)\* 19. ELEV. CASINGHEAD  
9/30/87 10/16/87 8-24-88 6357' GL; 6369' KB 6357' GL; 6369' KB

20. TOTAL DEPTH, MD & TVD 21. PLUG. BACK T.D., MD & TVD 22. IF MULTIPLE COMPL., HOW MANY\* 23. INTERVALS DRILLED BY ROTARY TOOLS CABLE TOOLS  
8160' 3207' NA Rotary

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\* 25. WAS DIRECTIONAL SURVEY MADE  
3080-3137' - Fruitland No

26. TYPE ELECTRIC AND OTHER LOGS RUN 27. WAS WELL CORED  
GR-CCL IES-CDL NO

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9-5/8"	36#	359'	12-1/4"	158 sx class B w/3% CaCl (190 cu. ft.)	-----
5-1/2"	15.5#	8155'	7-7/8"	Total of 3147 cu. ft. in 3 stages:	-----

29. LINER RECORD 30. TUBING RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
					2-7/8"	3150'	

31. PREPARATION RECORD (Interval, size and number) 32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

INTERVAL	SIZE	NUMBER	DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
3080' to 3087'			3080-3187'	10,836# 40/70 sand
3099 to 3111'				183,864# 12/20 sand
3112' to 3116'				2299 bbls. of gelled water.
3122' to 3127'				
3133' to 3137'				
Total of 116 holes				

33. PRODUCTION  
DATE FIRST PRODUCTION 7-13-88 \*  
PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) pumping - 1 1/2" insert  
WELL STATUS (Producing or shut-in) SI

DATE OF TEST	HOURS TESTED	CHOKES SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
9-14-88	24	0.500"		0	65	180	--

FLOW. TUBING PRESS.	CASING PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
50	50		0	65	180	--

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.) TEST WITNESSED BY  
Vented during test; to be sold Hazen

35. LIST OF ATTACHMENTS \*1st Hydrocarbons to well bore during completion operations  
Tops same as reported for the Basin Dakota formation.

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records  
Ernie P. McLaughlin  
Farmington, N.M.  
James S. Hazen  
TITLE Field Supt. DATE OCT 20 1988

37. (See Instructions and Spaces for Additional Information on Reverse Side) FARMINGTON RESOURCE AREA  
RECEIVED  
16 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPL

Form approved  
Budget Bureau No. 1004-0137  
Expires August 31, 1985

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

1. TYPE OF WELL:  WELLS  GAS WELLS  DRY  Other

2. TYPE OF COMPLETION:  NEW WELLS  WORK OVER  DRIFT-EN  PLUG BACK  DIFF. REMOVR.  Other

3. NAME OF OPERATOR  
JEROME P. McHUGH

4. ADDRESS OF OPERATOR  
P.O. Box 809, Farmington, N.M.

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements)\*  
At surface  
1850' FNL - 1190' FWL  
At top prod. interval reported below  
At total depth

5. LEASE DESIGNATION AND SERIAL NO.  
NM 30016  
6. IF INDIAN, ALLOTTEE OR TRIBE NAME  
7. UNIT AGREEMENT NAME  
Carracas Unit  
8. FARM OR LEASE NAME  
Carracas Unit 34A  
9. WELL NO.  
#5  
10. FIELD AND POOL, OR WILDCAT  
Basin Dakota  
11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA  
Sec. 34, T32N, R5W, NMPM  
12. COUNTY OR PARISH  
Rio Arriba  
13. STATE  
NM

13. DATE SPUDDED 9/30/87  
16. DATE T.D. REACHED 10/16/87  
17. DATE COMPL. (Ready to prod.) NA - Plan to TA  
18. ELEVATIONS (OF. RKB, RT, GR, ETC.)\* 6357'GL; 6369'KB  
19. ELEV. CASINGHEAD 6357'GL; 6369'KB

20. TOTAL DEPTH, MD & TVD 8160'  
21. PLUG, BACK T.D., MD & TVD 8105'  
22. IF MULTIPLE COMPL., HOW MANY\* N/A  
23. INTERVALS DRILLED BY  
ROTARY TOOLS TD  
CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*  
NA  
25. WAS DIRECTIONAL SURVEY MADE  
No

26. TYPE ELECTRIC AND OTHER LOGS RUN  
GR-CCL IES-CDL  
27. WAS WELL CORED  
No

28. CASING RECORD (Report all strings set in well)

CASING SIZE	WEIGHT, LB./FT.	DEPTH SET (MD)	HOLE SIZE	CEMENTING RECORD	AMOUNT PULLED
9-5/8"	36#	359'	12-1/4"	158 sx class B w/3% CaCl (190 cu. ft.)	-----
5-1/2"	17# & 15.5#	8155'	7-7/8"	Total of 3147 cu. fr. in 3 stages: See attached	-----

29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	SACKS CEMENT*	SCREEN (MD)
N/A				

30. TUBING RECORD

SIZE	DEPTH SET (MD)	PACKER SET (MD)
2-7/8"	8005'	8062'

31. PERFORATION RECORD (Interval, size and number)

8009' to 8022'  
8078' to 8074'  
8085' to 8092'  
1 shot per ft. - total of 26 holes

32. ACID, SHOT, FRACTURE, CEMENT SQUEEZE, ETC.

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
8009' - 8022'	500 gal of 15% HCL Acid
8078' - 8092'	500 gal of 15% HCL Acid
8009' - 8092'	90,000# of 20/40 Sand & 2,299 bbls. of cross-link gel

33. PRODUCTION 8009-8022' 500 gal. HCLHF Acid  
DATE FIRST PRODUCTION NA  
PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Swab - Unable to test due to formation water entry.  
WELL STATUS (Producing or shut-in) SI

34. DISPOSITION OF GAS (Sold, used for fuel, vented, etc.)

DATE OF TEST	HOURS TESTED	CHOKES SIZE	PROD'N. FOR TEST PERIOD	OIL—BBL.	GAS—MCF.	WATER—BBL.	GAS-OIL RATIO
5-26-88							

35. LIST OF ATTACHMENTS

FLUID PRODUCTION PRESSURE	CALCULATED 24-HOUR RATE	OIL—BBL.	GAS—MCF.	WATER—BBL.	OIL GRAVITY-API (CORR.)
Jerome P. McHugh Farmington, N.M.				100+ BWPD	

TEST WITNESSED BY  
J. Hazen  
ACCEPTED FOR RECORD

36. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records.  
SIGNED James S. Hazen TITLE Field Supt. DATE 6/23/88

(See Instructions and Spaces for Additional Data on Reverse Side)  
Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any Department or Agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

11-4-87 T.O.O.H. with work string.  
T.I.H. with model "R" packer and found hole at 3247'  
(DV tool).  
T.O.O.H. with packer.  
T.I.H. open ended to 3262' KB.  
Rigged up BJ Titan & pumped at 1/2 bbl. & 2500 psi.  
Pumped 25 sx of Class "B" with 2% CaCl.  

---

T.O.O.H. to 2700' & step squeezed to 3800 psi.  
T.O.O.H. with work string.  
SI & pressured to 1000 psi.  
W.O.C.

11-5-87 SI with 1000 psi. Released pressure.  
T.I.H. with 4-3/4" bit & work string & tagged cement at  
3170'.  
Drilled out cement & circulated hole clean.  
Rigged up BJ Titan & pressure tested to 4000 psi.  
Test good.  
Released pressure & circulated hole with 2% KCL water.  
SI over night.

JEROME P. McHUGH  
P O BOX 809  
FARMINGTON, NEW MEXICO 87499-0809  
505 326-7793

RECEIVED  
PLN MAIL ROOM  
28 JUN 24 AM 10:33

FARMINGTON RESOURCE CENTER  
FARMINGTON, NEW MEXICO

CARRACAS UNIT 34A #5

10/18/87 Changed BOP Rams to 5 1/2".

RU and ran 16 jts. of 5 1/2", 17#, K-55, LT&C (649.3') and 190 jts. of 5 1/2", 15.5#, K-55, LT&C (7509.5')  
Total of 206 jts. set at 8155' KB with Baker D.V. tools at 3247' and 5848'. Diff. fill float collar at 8110'.  
Circulated last joint down and RU BJ and cemented as follows:

1st Stage-

10 bbl. mud flush  
500 sk 50/50 poz with 2% gel, 6 1/4#/sk gilsonite and 1/4#/sk celoflake (695 cuft.)  
PD at 8:30 AM 10/18/87. Open DV tool at 5848' and circulated with rig pump 1 1/2 hrs.

2nd Stage-

10 bbl. mud flush  
300 sk 65/35 poz with 12% gel and 1/4#/sk celoflake. 200 sk 50/50 poz with 2% gel,  
6 1/4#/sk gilsonite and 1/4#/sk celoflake (1064 cuft.)  
PD at 11:00 AM 10/18/87 Open DV tool at 3247' and circulated with rig pump 2 1/2 hrs.

3rd Stage-

10 bbl. mud flush  
450 sk 65/35 poz with 12% gel and 1/4#/sk celoflake 150 sk 50/50 poz with 2% gel, 6 1/4#/sk gilsonite and 1/4#/sk celoflake (1388 cuft.) PD at 3:10 PM 10/18/87.

DV Tool would not close. Pressured to 3500 psi and worked with tool for 4 hrs. Float would not hold. SI well and released BJ. Set slips at 8:30 PM 10/18/87  
Had full returns throughout all 3 stages with show of mud cut cement on all 3 stages. SDON

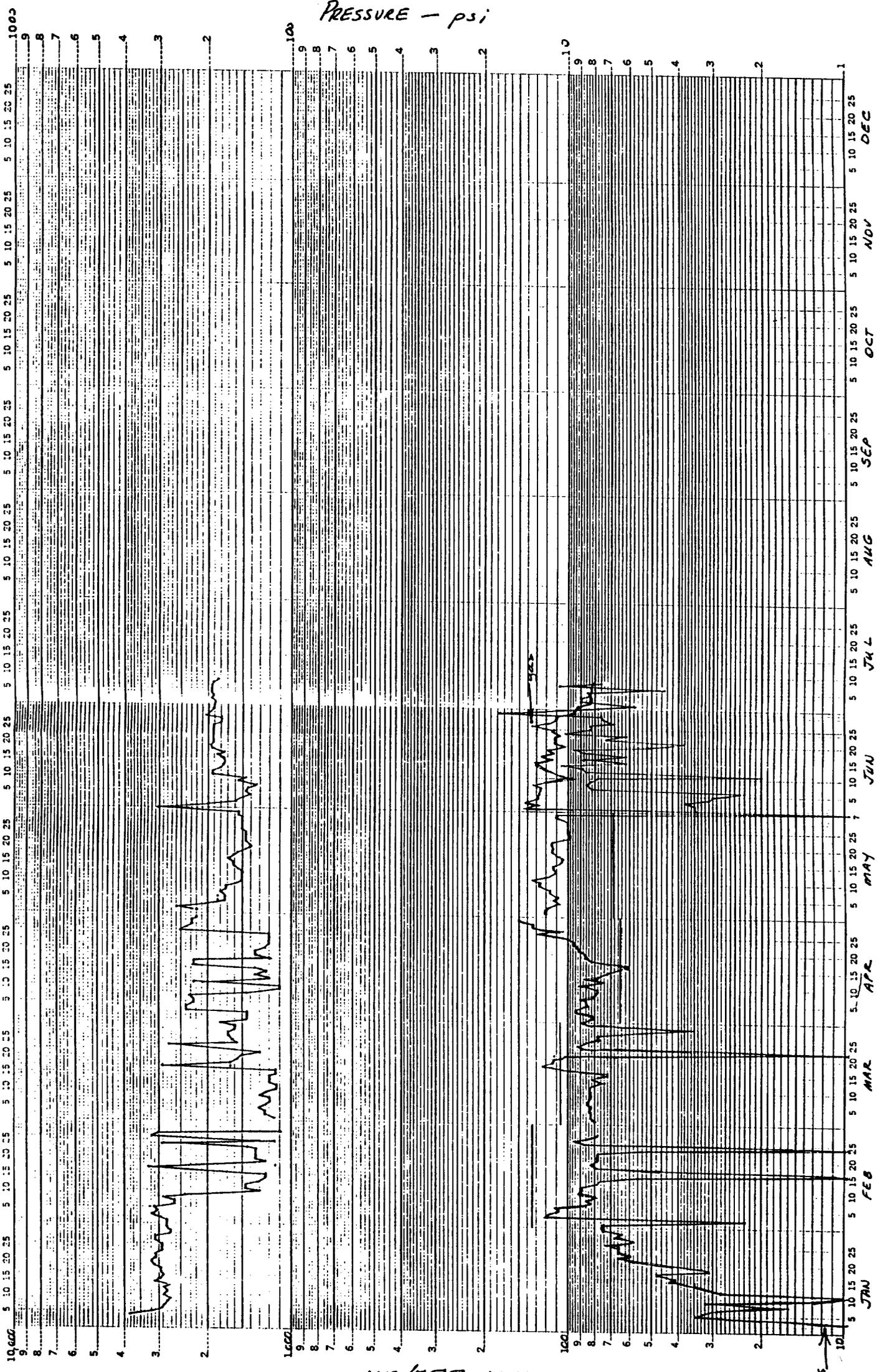
JEROME P. McHUGH  
PO Box 809  
Farmington, New Mexico 87499  
505 326-7793

INDEXED  
SERIALIZED  
OCT 26 1987  
FBI - ALBUQUERQUE

CARRACAS UNIT 34A #5

- 10-30-87 SI with 240 psi on well.  
Released pressure and T.I.H. with 2-7/8" tubing to 5840' and tagged cement.  
Rigged up & circulated for 1 hr.  
T.O.O.H.  
T.I.H. with Baker Model "R" packer to 3263' & set.  
Rigged up & pumped at 1 bbl./min. & 800 psi.  
T.O.O.H. & set packer at 3249'.  
Rigged up & pumped at 1 bbl./min. & 800 psi.  
T.O.O.H. & set packer at 3242'.  
Rigged up and pumped to 2000 psi. Pressure held.  
Released packer & T.O.O.H.  
SI over night.
- 10-31-87 Released pressure & T.I.H. open ended to 3240'.  
Rigged up BJ & pumped at 3 bbl./min. & 1250 psi.  
Spotted 50 sx class "8" with 2% Calcium Chloride at 3240'.  
T.O.O.H. with 15 stands of 2-7/8" tbg.  
Rigged up & cleared tbg. with 5 bbl. water, then pumped 5 bbl. of cement into formation.  
Shut down 1/2 hr. w/ 1250 psi on squeeze.  
Pumped 1 bbl. to 2750 psi. & SI 1/4 hr.  
Released pressure & T.O.O.H. with work string.  
SI BOP & pressured to 1000 psi.  
SI overnight.
- 11/1/87 W.O.C.
- 11-2-87 T.I.H. with 4-3/4" bit & work string & tagged cement at 3000'.  
Drilled cement & circulated hole clean.  
Pressure tested to 2200 psi. Test good.  
Released pressure & T.O.O.H.  
SI over night.
- 11-3-87 T.I.H. with 4-3/4" rock bit & drilled junk at 3258'.  
T.I.H. & drilled DV tool at 5848'.  
Circulated hole clean & T.I.H. & clean out to 8108' KB.  
Circulated hole clean.  
Rigged up BJ & circulated hole with 2% KCL & pressure tested.  
Test broke at 3275 psi.  
Pumped at 2250 psi & 3/4 bbl. per min.  
SI over night.

CARRACAS Unit 3A1-5  
 DAILY GAS FIELD READINGS  
 DAILY WATER GAUGES  
 1989



47 6540

GAS - MCFD  
 WATER - BBL/DAY

1 YEAR BY DAYS 3 LOG CYCLES  
 KEUFFEL & ESSER CO. MADE IN U.S.A.

# Edmundson & Associates, Inc.

R.B. EDMUNDSON  
BRAD W. HENTSCHEL  
PAUL S. CONNER  
BONITA L. LIMPUS

UNITIZATION



Case 9030

February 19, 1987

Mr. R. L. Stamets, Director  
Oil Conservation Division  
P.O. Box 2088  
Santa Fe, NM 87501-2088

Re: Carracas Canyon Unit Area  
Rio Arriba County, New Mexico

Dear Sir:

Enclosed please find copies of the Carracas Canyon Unit and Unit Operating Agreements, signature pages thereto, and letter dated February 6, 1987, from the Bureau of Land Management advising of the approval of the Carracas Canyon Unit Agreement effective January 30, 1987.

On behalf of Jerome P. McHugh and Edmundson & Associates, Inc., I wish to thank you for the help and cooperation which you have extended in this project.

Very truly yours,

EDMUNDSON & ASSOCIATES, INC.

Brad W. Hentschel

BWH:lfg  
Enclosures





United States Department of the Interior  
BUREAU OF LAND MANAGEMENT  
ALBUQUERQUE DISTRICT OFFICE

435 Montano N.E.  
Albuquerque, New Mexico 87107



IN REPLY REFER TO

Carracas Canyon  
Unit  
3180 (015)

FEB 06 1987

Jerome P. McHugh & Associates  
c/o Edmunson & Associates  
P.O. Box 1707  
Denver, CO 80201

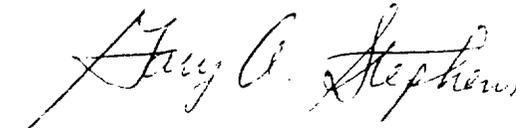
Gentlemen:

An approved copy of the Carracas Canyon Unit Agreement, Rio Arriba County, New Mexico is enclosed. The Agreement has been assigned No. 14-08-0001-19596 and is effective January 30, 1987.

You are requested to furnish all interested principles with appropriate evidence of this approval.

If you have any questions, please contact Shirley Bryant at the above address or call (505) 761-4503.

Sincerely,



For District Manager

Enclosure

9030

AUG 09 1988

Carracas Canyon (UA)  
3130 (015)

Unit Source Incorporated  
ATTN: Patti Engels  
P.O. Box 1707  
Denver, CO 80201-1380

Gentlemen:

Your letter of August 3, 1988, transmitted four copies of a Designation of Successor Unit Operator by which Jerome P. McHugh and Associates resigns as unit operator and Nassau Resources, Inc. is designated as unit operator of the Carracas Canyon Unit, Rio Arriba County, New Mexico, effective as of August 4, 1988.

The resignation of Jerome P. McHugh and Associates as unit operator and the designation of ~~Nassau Resources~~, Inc. as successor unit operator are hereby approved.

If you have any questions, please contact Robert Kent at the above address or telephone (505) 761-4503.

Sincerely,

[s] Gary A. Stephens

Assistant District Manager  
Mineral Resources

cc:  
NMOCD  
Comm. of Public Lands, Santa Fe  
NM-943C  
NM-019  
015:RKent:ja:8/8/88:0276M

# McHUGH

Jerome P. McHugh & Associates  
Operating Affiliate: Nassau Resources, Inc.  
650 South Cherry, Suite 1225  
Denver, Colorado 80222  
(303) 321-2111 FAX (303) 321-1563

February 28, 1990

REC'D FEB 5 AM 10 04  
#9030

United States Department of the Interior  
Bureau of Land Management  
Farmington Resource Area  
1235 La Plata Highway  
Farmington, New Mexico 87401

New Mexico Oil Conservation Division  
310 Old Santa Fe Trail  
Room 206  
Santa Fe, New Mexico 87503

Commissioner of Public Lands  
State of New Mexico  
P. O. Box 1148  
Santa Fe, New Mexico 87501

Re: 1990 Plan of Development  
Carracas Canyon Unit Area  
Rio Arriba County, New Mexico

Gentlemen:

Pursuant to Article 10 of the Carracas Canyon Unit Agreement (No. 14-08-0001-19596), Nassau Resources, Inc., Operator, hereby submits for your approval our 1990 Plan of Development (POD).

Subsequent to receiving approval of the unit agreement, Nassau has drilled two Dakota wells, thirty-seven (37) Fruitland Coal wells, two recompletions of existing wells, and one water disposal well. The wells drilled and their cumulative production as of December 31, 1989 are as follows:

<u>Well Name/Formation/Location</u>	<u>Gas (MCF)</u>	<u>Water (BBL)</u>
1. Arboles 20A #1Y Fruitland Recompletion SW/4 Sec. 20-T32N-R4W	15,919	1,652
2. Arboles 29A-1 Fruitland Recompletion SW/4 Sec. 29-T32N-R4W	4,161	2,152

Plan of Development  
February 28, 1990  
Page Two

3.	Carracas Mesa 14 #1 Dakota Recompletion in Fruitland NW/4 Sec. 14-T32N-R4W	6,271	17,217
4.	Carracas 10A-#11 Fruitland SW/4 Sec. 10-T32N-R5W	9,443	1,403
5.	Carracas 11A-#9 Fruitland SE/4 Sec. 11-T32N-R5W	25,389	1,245
6.	Carracas 13A-#14 Fruitland SW/4 Sec. 13-T32N-R5W	Waiting on Completion	
7.	Carracas 13A-#15 Fruitland SE/4 Sec. 13-T32N-R5W	12,244	5,839
8.	Carracas 13B-#7 Fruitland NE/4 Sec. 13-T32N-R4W	Waiting on Completion	
9.	Carracas 14A-#1 Fruitland NE/4 Sec. 14-T32N-R5W	Waiting on Completion	
10.	Carracas 14A-#13 Fruitland SW/4 Sec. 14-T32N-R5W	4,916	2,724
11.	Carracas 15B-#7 Fruitland NE/4 Sec. 15-T32N-R4W	59,652	1,159
12.	Carracas 16B-#6 Fruitland NW/4 Sec. 16-T32N-R4W	15,680	3,072
13.	Carracas 16B-#12 Fruitland SW/4 Sec. 16-T32N-R4W	15,406	2,395
14.	Carracas 17B-#15 Fruitland SE/4 Sec. 17-T32N-R4W	9,216	9,930

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Page Three

15.	Carracas 18B-#13 Fruitland SW/4 Sec. 18-T32N-R4W	20,473	1,424
16.	Carracas 18B-#15 Fruitland SE/4 Sec. 18-T32N-R4W	27,555	5,786
17.	Carracas 19B-#1 Fruitland NE/4 Sec. 19-T32N-R4W	1,506	3,056
18.	Carracas 20B-#3 Fruitland NW/4 Sec. 20-T32N-R4W	18,933	3,049
19.	Carracas 21A-#15 Fruitland SE/4 Sec. 21-T32N-R5W	3,412	2,041
20.	Carracas 21B-#5 Fruitland NW/4 Sec. 21-T32N-R4W	5,656	1,199
21.	Carracas 21B-#13 Fruitland SW/4 Sec. 21-T32N-R4W	5,678	605
22.	Carracas 22A-#13 Fruitland SW/4 Sec. 22-T32N-R5W	4,395	9,678
23.	Carracas 22A-#16 Fruitland SE/4 Sec. 22-T32N-R5W	11,223	7,082
24.	Carracas 23A-#2 Fruitland NE/4 Sec. 23-T32N-R5W	10,981	20,014
25.	Carracas 23A-#12 Fruitland SW/4 Sec. 23-T32N-R5W	15,552	20,383
26.	Carracas 24A-#4 Fruitland NE/4 Sec. 24-T32N-R5W	26,725	2,797

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27.	Carracas 24A-#7 Fruitland NW/4 Sec. 24-T32N-R5W	5,416	4,107
28.	Carracas 26A-#2 Fruitland NE/4 Sec. 26-T32N-R5W	26,773	3,764
29.	Carracas 26B-#16 Fruitland SE/4 Sec. 26-T32N-R4W	155,178	8
30.	Carracas 27A-#8 Fruitland NE/4 Sec. 27-T32N-R5W	10,936	8,077
31.	Carracas 27A-#14 Fruitland SW/4 Sec. 27-T32N-R5W	25,097	21,593
32.	Carracas 27A-#82 Water Disposal Well NE/4 Sec. 27-T32N-R5W		
33.	Carracas 27B-#5 Fruitland NW/4 Sec. 27-T32N-R4W	5,769	1,007
34.	Carracas 28B-#5 Fruitland NW/4 Sec. 28-T32N-R4W	11,687	891
35.	Carracas 30B-#8 Fruitland NE/4 Sec. 30-T32N-R4W	2,027	1,197
36.	Carracas 32B-#5 Fruitland NW/4 Sec. 32-T32N-R4W	5,170	3,512
37.	Carracas 34A-#5 Dakota Recompletion in Fruitland NW/4 Sec. 34-T32N-R5W	16,653	16,670
38.	Carracas 34B-#2 Fruitland NE/4 Sec. 34-T32N-R4W	39,513	143

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 Page Five

39.	Carracas 35A-#8 Fruitland NE/4 Sec. 35-T32N-R5W	770	3,164
40.	Carracas 35B-#9 Fruitland SE/4 Sec. 35-T32N-R4W	Waiting on Completion	
41.	Carracas 35B-#13 Fruitland SW/4 Sec. 35-T32N-R4W	120,094	110
42.	Carracas 36B-#15 Fruitland SE/4 Sec. 36-T32N-R4W	Waiting on Completion	

As noted above all but five of the wells have been completed and are connected to our gas gathering as well as water disposal system. Our water disposal well was drilled to a depth of 10,000 feet with all water being injected into the Entrada formation.

For the 1990 drilling season which should begin by May 1, 1990, we propose to drill an additional thirty-four (34) Fruitland Coal wells in the following locations.

	<u>Well Name</u>	<u>Drilling Block</u>
1.	Carracas 2A-#11	All Sec. 2-T31N-R5W
2.	Carracas 10A-#8	N/2 Sec. 10-T32N-R5W
3.	Carracas 10B-#15	All Sec. 10-T32N-R4W
4.	Carracas 11A-#5	All Sec. 11-T32N-R5W
5.	Carracas 11B-#15	All Sec. 11-T32N-R4W
6.	Carracas 12B-#16	All Sec. 12-T32N-R4W
7.	Carracas 13B-#11	W/2 Sec. 13-T32N-R4W
8.	Carracas 14B-#10	S/2 Sec. 14-T32N-R4W
9.	Carracas 15A-#16	S/2 Sec. 15-T32N-R5W
10.	Carracas 15B-#14	W/2 Sec. 15-T32N-R4W
11.	Carracas 17B-#14	W/2 Sec. 17-T32N-R4W
12.	Carracas 19B-#4	W/2 Sec. 19-T32N-R4W
13.	Carracas 22B-#7	N/2 Sec. 22-T32N-R4W
14.	Carracas 22B-#9	S/2 Sec. 22-T32N-R4W
15.	Carracas 23B-#8	N/2 Sec. 23-T32N-R4W
16.	Carracas 23B-#15	S/2 Sec. 23-T32N-R4W
17.	Carracas 24B-#1	N/2 Sec. 24-T32N-R4W
18.	Carracas 24B-#13	S/2 Sec. 24-T32N-R4W
19.	Carracas 25A-#16	E/2 Sec. 25-T32N-R5W
20.	Carracas 25B-#3	N/2 Sec. 25-T32N-R4W
21.	Carracas 25B-#13	S/2 Sec. 25-T32N-R4W

Plan of Development  
February 28, 1990  
Page Six

22.	Carracas 26B-#13	W/2 Sec. 26-T32N-R4W
23.	Carracas 27B-#12	S/2 Sec. 27-T32N-R4W
24.	Carracas 28B-#10	E/2 Sec. 28-T32N-R4W
25.	Carracas 29B-#8	E/2 Sec. 29-T32N-R4W
26.	Carracas 30B-#16	S/2 Sec. 30-T32N-R4W
27.	Carracas 31B-#1	E/2 Sec. 31-T32N-R4W
28.	Carracas 31B-#5	W/2 Sec. 31-T32N-R4W
29.	Carracas 33B-#4	N/2 Sec. 33-T32N-R4W
30.	Carracas 33B-#11	S/2 Sec. 33-T32N-R4W
31.	Carracas 34B-#9	S/2 Sec. 34-T32N-R4W
32.	Carracas 36A-#1	E/2 Sec. 36-T32N-R5W
33.	Carracas 36A-#5	W/2 Sec. 36-T32N-R5W
34.	Carracas 36B-#11	W/2 Sec. 36-T32N-R4W

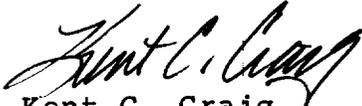
It is our intent to spud and complete the entire listing of the above described wells by late summer or early fall of this year. The drilling order will be determined as our permits to drill are approved and released by the BLM.

If you have any questions, feel free to call Gary Johnson or myself at (303) 321-2111.

If the above described Plan of Development is acceptable, please signify your concurrence of same as required under Section 10 of the Unit Agreement by executing and returning one copy of the attached sheet to my attention.

A copy of this letter is being provided to the list of working interest owners described on the attachment to this letter.

Very truly yours,

  
Kent C. Craig

KCC/rc

attachments

APPROVED: \_\_\_\_\_  
Bureau of Land Management

DATE: \_\_\_\_\_

APPROVED: \_\_\_\_\_  
Commissioner of Public Lands

DATE: \_\_\_\_\_

APPROVED:  \_\_\_\_\_  
Oil Conservation Division

DATE: 3-6-90

The foregoing approvals are for the 1990 Plan of Development  
filed by Nassau Resources, Inc. for the Carracas Canyon Unit,  
#14-08-0001-19596, Rio Arriba County, New Mexico.

Working Interest Owners:

Amoco Production Company  
1670 Broadway  
P. O. Box 800  
Denver, Colorado 80201

Grynberg Petroleum  
5000 S. Quebec, Suite 500  
Denver, Colorado 80237

Dugan Production Corp.  
P. O. Box 420  
Farmington, New Mexico 87499

CNG Development Company  
One Park Ridge Center  
P. O. Box 15746  
Pittsburgh, Pennsylvania 15244

# McHUGH

#4030  
Jerome P. McHugh & Associates  
Operating Affiliate: Nassau Resources, Inc.  
650 South Cherry, Suite 1225  
Denver, Colorado 80222-1894  
(303) 321-2111 FAX (303) 321-1563

July 23, 1992

1992 JUL 26 AM 8 54

United States Department of the Interior  
Bureau of Land Management  
Farmington Resource Area  
1235 La Plata Highway  
Farmington, New Mexico 87401

New Mexico Oil Conservation Division  
310 Old Santa Fe Trail  
Room 206  
Santa Fe, New Mexico 87503

Re: First Amendment to 1992 Plan of Development  
Carracas Canyon Unit Area  
Rio Arriba County, New Mexico

Gentlemen:

Pursuant to Article 10 of the Carracas Canyon Unit Agreement (No. 14-08-0001-19596), Nassau Resources, Inc., Operator, hereby submits for your approval its first amendment to the 1992 Plan of Development. The original 1992 Plan of Development was approved by the Bureau of Land Management on March 24, 1992 and by the New Mexico Oil Conservation Division on March 30, 1992.

#### Changes to 1992 Plan of Development

Under Section II.C. of the 1992 Plan of Development, Nassau Resources, Inc. indicated it planned to plug and abandon three wells, including the Carracas Unit 22 B #7. Prior to plugging and abandoning this well, Nassau Resources, Inc. plans to test the deeper Pictured Cliffs formation in the Carracas Unit 22 B #7 well. If economically feasible, this well will be recompleted as a Pictured Cliffs producer. Otherwise, Nassau will proceed with the plugging and abandonment of this well. Depending upon the results of this operation, Nassau Resources, Inc. may evaluate the Pictured Cliffs potential in other locations.

If you have any questions, feel free to call Gary Johnson or myself at (303) 321-2111.

If this amendment to the 1992 Plan of Development is acceptable, please signify your concurrence of same as required under Section 10 of the Unit Agreement by executing and returning one copy of this amendment to my attention.

July 23, 1992  
1992 Plan of Development  
Page 2

A copy of this letter is being provided to the working interest owners listed on the attachment to this letter.

Very truly yours,

NASSAU RESOURCES, INC.

  
James C. Joda

attachment

APPROVED: \_\_\_\_\_  
Bureau of Land Management

DATE: \_\_\_\_\_

APPROVED:  \_\_\_\_\_  
New Mexico Oil  
Conservation Division

DATE: 7-28-92

The foregoing approvals are for the First Amendment to the 1992 Plan of Development filed by Nassau Resources, Inc. for the Carracas Canyon Unit, #14-08-0001-19596, Rio Arriba County, New Mexico.

ATTACHMENT A

Working Interest Owners:

Amoco Production Company  
1670 Broadway  
P. O. Box 800  
Denver, Colorado 80201

Grynberg Petroleum  
5000 S. Quebec, Suite 500  
Denver, Colorado 80237

Dugan Production Corp.  
P. O. Box 420  
Farmington, New Mexico 87499

CNG Producing Company  
CNG Tower  
1450 Poydras Street  
New Orleans, LA 70112-6000

Kindermac Partners  
650 South Cherry Street, Suite 1225  
Denver, Colorado 80222

# M<sup>C</sup>HUGH

OIL CONSERVATION DIV.  
RECEIVED

Jerome P. McHugh & Associates  
Operating Affiliate: Nassau Resources, Inc.  
650 South Cherry, Suite 1225  
Denver, Colorado 80222-1894  
(303) 321-2111 FAX (303) 321-1563

'92 MAR 27 PM 1 38

March 19, 1992

United States Department of the Interior  
Bureau of Land Management  
Farmington Resource Area  
1235 La Plata Highway  
Farmington, New Mexico 87401

New Mexico Oil Conservation Division  
310 Old Santa Fe Trail  
Room 206  
Santa Fe, New Mexico 87503

Commissioner of Public Lands  
State of New Mexico  
P. O. Box 1148  
Santa Fe, New Mexico 87501

Re: 1992 Plan of Development  
Carracas Canyon Unit Area  
Rio Arriba County, New Mexico

Gentlemen:

Pursuant to Article 10 of the Carracas Canyon Unit Agreement (No. 14-08-0001-19596), Nassau Resources, Inc., Operator, hereby submits for your approval our 1992 Plan of Development (POD).

I. 1991 Operations Summary

A. **Wells drilled in 1991:** None.

B. **Wells with first deliveries in 1991:**

Well Name

1. Carracas Unit 13 B #11
2. Carracas Unit 25 B #13
3. Carracas Unit 31 B #5
4. Carracas Unit 33 B #4

C. **Production:** Gas produced from the Fruitland accounted for all oil and gas production in 1991. 1991 production

and cumulative production for each well is:

	<u>Well Name</u>	<u>1991 Production</u>	<u>Cumulative Production</u>
1.	Carracas Mesa 14-01	126	36,959
2.	Carracas Unit 11 A #11	48,730	117,923
3.	Carracas Unit 11 A #09	107,612	285,314
4.	Carracas Unit 11 B #15	43	3,123
5.	Carracas Unit 12 B #16	324	3,726
6.	Carracas Unit 13 A #14	7,488	39,316
7.	Carracas Unit 13 A #15	0	23,817
8.	Carracas Unit 13 B #07	1,329	13,540
9.	Carracas Unit 13 B #11	1,864	1,864
10.	Carracas Unit 14 A #01	46,411	183,444
11.	Carracas Unit 14 A #13	144	47,543
12.	Carracas Unit 14 B #10	394	2,626
13.	Carracas Unit 15 A #16	8,318	18,078
14.	Carracas Unit 15 B #07	73,981	296,585
15.	Carracas Unit 15 B #14	1,649	11,321
16.	Carracas Unit 16 B #06	658	45,456
17.	Carracas Unit 16 B #12	0	27,379
18.	Carracas Unit 17 B #15	752	30,180
19.	Carracas Unit 18 B #13	1,119	38,369
20.	Carracas Unit 18 B #15	15,310	76,938
21.	Carracas Unit 19 B #01	0	7,907
22.	Carracas Unit 20 B #03	0	30,610
23.	Carracas Unit 21 A #15	2,702	36,450
24.	Carracas Unit 21 B #05	0	12,313
25.	Carracas Unit 21 B #13	0	18,435
26.	Carracas Unit 22 A #13	77	21,496
27.	Carracas Unit 22 A #16	22,077	98,890
28.	Carracas Unit 22 B #07	1,253	10,015
29.	Carracas Unit 22 B #09	334,685	506,807
30.	Carracas Unit 23 A #02	5,646	40,673
31.	Carracas Unit 23 A #12	1,874	46,968
32.	Carracas Unit 23 B #08	577,266	694,622
33.	Carracas Unit 23 B #15	1,539,868	1,708,430
34.	Carracas Unit 24 A #04	0	43,713
35.	Carracas Unit 24 A #07	0	12,724
36.	Carracas Unit 24 B #01	202	4,989
37.	Carracas Unit 24 B #13	78,996	92,228
38.	Carracas Unit 25 B #03	206,710	267,234
39.	Carracas Unit 25 B #13	11,237	11,237
40.	Carracas Unit 26 A #02	1,316	71,081
41.	Carracas Unit 26 B #13	14,037	17,977
42.	Carracas Unit 26 B #16	1,123,657	2,017,430
43.	Carracas Unit 27 A #08	0	16,055
44.	Carracas Unit 27 A #14	867	46,215
45.	Carracas Unit 27 A #82	WATER DISPOSAL WELL	

46.	Carracas Unit 27 B #05	0	21,831
47.	Carracas Unit 27 B #12	3,227	13,293
48.	Carracas Unit 28 B #05	917	32,993
49.	Carracas Unit 28 B #10	16,846	43,622
50.	Carracas Unit 30 B #08	0	5,656
51.	Carracas Unit 30 B #16	213	8,317
52.	Carracas Unit 31 B #05	15,449	15,449
53.	Carracas Unit 32 B #05	25,615	86,171
54.	Carracas Unit 33 B #04	186,020	186,020
55.	Carracas Unit 34 A #05	0	35,335
56.	Carracas Unit 34 A #05 (FR)	3,413	46,146
57.	Carracas Unit 34 B #02	96,279	276,435
58.	Carracas Unit 34 B #09	11,039	17,761
59.	Carracas Unit 35 A #08	0	12,484
60.	Carracas Unit 35 B #09	168,709	330,774
61.	Carracas Unit 35 B #13	779,641	1,547,500
62.	Carracas Unit 36 B #15	0	3,125

II.

Plans for 1992

A. **Proposed wells.** Because of the downturn in gas prices during 1991 and 1992, economics are unfavorable for drilling new wells in the Carracas Canyon Unit Area during 1992. Should gas prices improve, the following new wells would be drilled during 1992:

1. Carracas Unit 15 B #15, SW/4SE/4 of Sect 15-32N-4W. Replacement well for Carracas Unit 15 B #14.
2. Carracas Unit 22 B #7R, SW/4NE/4 of Sect 22-32N-4W. Replacement well for Carracas Unit 22 B #7 to be drilled directionally to SE/4NE/4 of Sect 22-32N-4W.
3. Carracas Unit 36 B #11, NE/4SW/4 of Sect 36-32N-4W.
4. Carracas Unit 9 B #15, SW/4SE/4 of Sect 9-32N-4W.

B. **Production enhancement.** Economics permitting, it is planned to enhance production of certain existing wells by refracturing those wells. This will be tried initially on wells Carracas Mesa 14-01, Carracas Unit 18 B #13 and Carracas Unit 27 A #8. If the refractures prove successful, additional refracturing will be done on other wells.

C. **Abandonments.** It is planned to plug and abandon wells Carracas Unit 15 B #14, Carracas Unit 22 B #7 and Carracas Unit 36 B #15.

March 19, 1992  
1992 Plan of Development  
Page 4

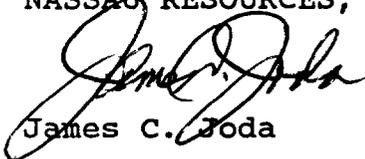
If you have any questions, feel free to call Gary Johnson or myself at (303) 321-2111.

If the above described Plan of Development is acceptable, please signify your concurrence of same as required under Section 10 of the Unit Agreement by executing and returning one copy of the attached sheet to my attention.

A copy of this letter is being provided to the list of working interest owners described on the attachment to this letter.

Very truly yours,

NASSAU RESOURCES, INC.

A handwritten signature in black ink, appearing to read "James C. Joda", is written over the typed name.

James C. Joda

attachments

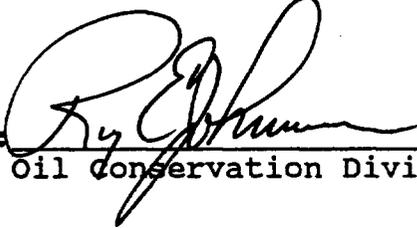
March 19, 1992  
1992 Plan of Development  
Page 5

APPROVED: \_\_\_\_\_  
Bureau of Land Management

DATE: \_\_\_\_\_

APPROVED: \_\_\_\_\_  
Commissioner of Public Lands

DATE: \_\_\_\_\_

APPROVED:  \_\_\_\_\_  
Oil Conservation Division

DATE: 3-30-92

The foregoing approvals are for the 1992 Plan of Development filed by Nassau Resources, Inc. for the Carracas Canyon Unit, #14-08-0001-19596, Rio Arriba County, New Mexico.

ATTACHMENT A

Working Interest Owners:

Amoco Production Company  
1670 Broadway  
P. O. Box 800  
Denver, Colorado 80201

Grynberg Petroleum  
5000 S. Quebec, Suite 500  
Denver, Colorado 80237

Dugan Production Corp.  
P. O. Box 420  
Farmington, New Mexico 87499

CNG Producing Company  
CNG Tower  
1450 Poydras Street  
New Orleans, LA 70112-6000

# M<sup>C</sup>HUGH

Jerome P. McHugh & Associates  
Operating Affiliate: Nassau Resources, Inc.  
650 South Cherry, Suite 1225  
Denver, Colorado 80222-1894  
(303) 321-2111 FAX (303) 321-1563

September 11, 1992

'92 SEP 16 AM 8 53

United States Department of the Interior  
Bureau of Land Management  
Farmington Resource Area  
1235 La Plata Highway  
Farmington, New Mexico 87401

New Mexico Oil Conservation Division  
310 Old Santa Fe Trail  
Room 206  
Santa Fe, New Mexico 87503

Re: **Second Amendment to 1992 Plan of Development  
Carracas Canyon Unit Area  
Rio Arriba County, New Mexico**

Gentlemen:

Pursuant to Article 10 of the Carracas Canyon Unit Agreement (No. 14-08-0001-19596), Nassau Resources, Inc., Operator, hereby submits for your approval its second amendment to the 1992 Plan of Development. The original 1992 Plan of Development was approved by the Bureau of Land Management on March 24, 1992 and by the New Mexico Oil Conservation Division on March 30, 1992. The First Amendment to the 1992 Plan of Development was approved by the Bureau of Land Management on July 29, 1992 and the New Mexico Oil Conservation Division on July 28, 1992.

### Second Amendment to 1992 Plan of Development

Under Section II.A. of the 1992 Plan of Development, Nassau Resources, Inc. indicated it planned to drill four Fruitland wells if gas prices improved: 1) Carracas Unit 15 B #15, 2) Carracas Unit 22 B #7R, 3) Carracas Unit 36 B #11 and 4) Carracas Unit 9 B. Nassau wishes to amend this section by deleting references to those four wells and now proposes that the following wells be drilled instead:

1. Carracas Unit (PC) 23 B #13, SW/4SW/4 of Sect 23-32N-4W. Objective-Pictured Cliffs formation.
2. Carracas Unit (G/PC) 26 B #3, NE/4NW/4 of Sect 26-32N-4W. Objective-Gallup with possibility of plugging back to the Pictured Cliffs formation.
3. Carracas Unit (PC) 26 B #13, SW/4SW/4 of Sect 26-32N-4W. Objective-Pictured Cliffs formation.
4. Carracas Unit (PC) 36 B #11, NE/4SW/4 of Sect 36-32N-4W. Objective-Pictured Cliffs formation.

September 11, 1992  
Second Amendment to 1992 Plan of Development  
Page 2

If you have any questions, feel free to call Gary Johnson or myself at (303) 321-2111.

If this Second Amendment to the 1992 Plan of Development is acceptable, please signify your concurrence of same as required under Section 10 of the Unit Agreement by executing and returning one copy of this amendment to my attention.

A copy of this letter is being provided to the working interest owners listed on the attachment to this letter.

Very truly yours,

NASSAU RESOURCES, INC.

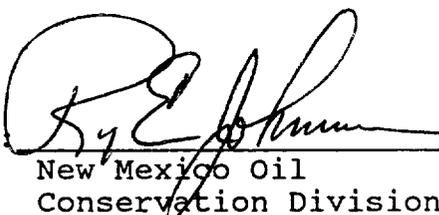


James C. Joda

attachment

APPROVED: \_\_\_\_\_  
Bureau of Land Management

DATE: \_\_\_\_\_

APPROVED:  \_\_\_\_\_  
New Mexico Oil  
Conservation Division

DATE: 9-17-92

The foregoing approvals are for the Second Amendment to the 1992 Plan of Development filed by Nassau Resources, Inc. for the Carracas Canyon Unit, #14-08-0001-19596, Rio Arriba County, New Mexico.

ATTACHMENT A

Working Interest Owners:

Amoco Production Company  
1670 Broadway  
P. O. Box 800  
Denver, Colorado 80201

Grynberg Petroleum  
5000 S. Quebec, Suite 500  
Denver, Colorado 80237

Dugan Production Corp.  
P. O. Box 420  
Farmington, New Mexico 87499

CNG Producing Company  
CNG Tower  
1450 Poydras Street  
New Orleans, LA 70112-6000

Kindermac Partners  
650 South Cherry Street, Suite 1225  
Denver, Colorado 80222

Frontier Energy Corporation  
1717 St. James Place, Suite 380  
Houston, Texas 77056

OIL CONSERVATION DIVISION  
RECEIVED  
'92 SEP 16 AM 9 04

Carracas Canyon Unit (PA)  
Fruitland Coal  
3183.5 (019)

SEP. 8 1992

Mr. Gary Johnson  
Jerome P. McHugh & Associates  
Operating Affiliate: Nassau Resources Inc.  
650 South Cherry, Suite 1225  
Denver, CO 80222

Dear Mr. Johnson:

We have reviewed your application for non-paying well determinations for the 30 wells on the enclosed list. We concur that none of the wells are capable of producing unitized substances in paying quantities and should therefore be excluded from the Fruitland Coal Participating Area. Please continue to report production on an individual lease basis.

Under provisions of 43 CFR 3165.3, you may request an Administrative Review of the order described above. Such request, including all supporting documents, must be filed in writing within 20 business days of receipt of this notice and must be filed with the State Director, Bureau of Land Management, P. O. Box 27115, Santa Fe, New Mexico 87502-0115. Such request shall not result in a suspension of the order unless the reviewing official so determines. Procedures governing appeals from instructions, orders or decisions are contained in 43 CFR 3165.4 and 43 CFR 4.400 *et seq.*

If you have any questions, please contact Ray Hager at (505) 599-8959.

Sincerely,

/s/ Duane Spencer

FOR John L. Keller  
Chief, Branch of Mineral Resources

2 Enclosures  
1 - List of Affected Wells  
2 - Original Application

cc:

Minerals Management Service, RMP (w/enclosure 1)  
New Mexico Oil Conservation Division, Santa Fe, NM (w/enclosure 1)  
Commissioner of Public Lands Santa Fe, NM (w/enclosure 1)

Well Listing  
 Application for Approval of  
 Non-Paying Well Determination

	<u>Well Name</u>	<u>Drillblock</u>	<u>Date of First Sales</u>
1.	Arboles 20A #1Y	S/2 Sec. 20-T32N-R4W	05/01/89
2.	Carracas 13A-#15	E/2 Sec. 13-T32N-R5W	05/01/89
3.	Carracas 18B-#13	W/2 Sec. 18-T32N-R4W	05/01/89
4.	Carracas 20B-#3	N/2 Sec. 20-T32N-R4W	05/01/89
5.	Carracas 24A-#4	W/2 Sec. 24-T32N-R5W	05/02/89
6.	Carracas 16B-#12	S/2 Sec. 16-T32N-R4W	05/02/89
7.	Carracas 23A-#2	N/2 Sec. 23-T32N-R5W	06/15/89
8.	Carracas 18B-#15	E/2 Sec. 18-T32N-R4W	06/17/89
9.	Carracas 27A-#8	E/2 Sec. 27-T32N-R5W	06/30/89
10.	Carracas 16B-#6	N/2 Sec. 16-T32N-R4W	07/27/89
11.	Carracas 26A-#2	E/2 Sec. 26-T32N-R5W	07/27/89
12.	Carracas 17B-#15	E/2 Sec. 17-T32N-R4W	07/28/89
13.	Carracas 23A-#12	S/2 Sec. 23-T32N-R5W	08/22/89
14.	Carracas Mesa 14-1	N/2 Sec. 14-T32N-R4W	08/28/89
15.	Carracas 28B-#5	W/2 Sec. 28-T32N-R4W	09/01/89
16.	Carracas 21B-#5	N/2 Sec. 21-T32N-R4W	10/03/89
17.	Carracas 24A-#7	E/2 Sec. 24-T32N-R5W	10/12/89
18.	Carracas 32B-#5	N/2 Sec. 32-T32N-R4W	10/12/89
19.	Carracas 21A-#15	E/2 Sec. 21-T32N-R5W	10/23/89
20.	Carracas 21B-#13	S/2 Sec. 21-T32N-R4W	10/23/89
21.	Arboles 29A #1	W/2 Sec. 29-T32N-R4W	10/24/89
22.	Carracas 27B-#5	N/2 Sec. 27-T32N-R4W	10/26/89
23.	Carracas 22A-#13	W/2 Sec. 22-T32N-R5W	10/26/89
24.	Carracas 14A-#13	S/2 Sec. 14-T32N-R5W	11/01/89
25.	Carracas 22A-#16	E/2 Sec. 22-T32N-R5W	11/07/89
26.	Carracas 30B-#8	N/2 Sec. 30-T32N-R4W	11/07/89
27.	Carracas 19B-#1	E/2 Sec. 19-T32N-R4W	11/17/89
28.	Carracas 35A-#8	E/2 Sec. 35-T32N-R5W	12/01/89
29.	Carracas 13A-#14	W/2 Sec. 13-T32N-R5W	02/16/90
30.	Carracas 36B-#15	E/2 Sec. 36-T32N-R4W	02/23/90

# NASSAU

Nassau Resources, Inc.  
650 South Cherry, Suite 205 DIVISION  
Denver, Colorado 80228-1894  
(303) 321-2111 FAX (303) 321-1563

'95 MAR 24 PM 8 52

#9030

March 16, 1995

United States Department of the Interior  
Bureau of Land Management  
Farmington Resource Area  
1235 La Plata Highway  
Farmington, New Mexico 87401

New Mexico Oil Conservation Division  
310 Old Santa Fe Trail  
Room 206  
Santa Fe, New Mexico 87503

Re: 1995 Plan of Development  
Carracas Canyon Unit Area  
Rio Arriba County, New Mexico

Gentlemen:

Pursuant to Article 10 of the Carracas Canyon Unit Agreement (No. 14-08-0001-19596), Nassau Resources, Inc., Operator, hereby submits for your approval our 1995 Plan of Development (POD).

I. 1994 History

During 1994, one well was drilled within the Carracas Unit. The well is currently undergoing an extended bottomhole pressure buildup test. Completion of this well is scheduled to begin in April, 1995. Pertinent statistics for this well are as follows:

1. Carracas Unit 10B-15, SW SE Section 10, T32N R04W, Rio Arriba County, New Mexico. Spud 05/29/94.

Carracas Canyon Unit 1994 production was 4,927,857 MCF gas, 53 BBL condensate and 154,673 BBL water. Production from the Fruitland Coal was 3,701,953 MCF gas, 53 BBL condensate and 152,843 BBL water while 1,225,904 MCF gas, 0 BBL condensate and 1830 BBL water were produced from the Pictured Cliffs formation. Cumulative production from the Carracas Unit is 25,115,261 MCF gas, 474 BBL condensate and 1,283,247 BBL water.

On January 1, 1994, there were 47 wells producing in the Carracas Unit. By December 31, 1994, the number producing had been increased to 49 wells. This increase was the result of returning 2 wells to production. Return to production was facilitated by higher gas prices in early 1994.

Nassau was unable to drill the remaining wells listed in its 1994 Plan of Development due to seasonal restrictions and the precipitous drop in gas prices experienced in the summer and fall of 1994.

## II. Plans for 1995

During 1995 it is planned to drill the following new wells:

### Fruitland Coal wells

1. 29B-8 SE NE Section 29, T32N R04W Rio Arriba, NM
2. 33B-11 SE SW Section 33, T32N R04W Rio Arriba, NM

### Pictured Cliffs wells

1. PC 26B-7 SW NE Section 26, T32N R04W Rio Arriba, NM
2. PC 23B-8 SE NE Section 23, T32N R04W Rio Arriba, NM

### Gallup formation test

1. GL 26B-7 SW NE Section 26, T32N R04W Rio Arriba, NM will be drilled as a Gallup test and dual completed with Pictured Cliffs if productive, or plugged back to the Pictured Cliffs if non-productive in the Gallup. (see above Pictured Cliffs wells)

### Dakota Formation test

1. DK 10A-8 SE NE Section 10, T32N R05W Rio Arriba, NM  
or  
DK 9A-8 SE NE Section 9, T32N R05W Rio Arriba, NM  
The Dakota formation will be tested at one of these locations depending upon surface management agency approval. If the well drilled proves to be non-productive in the Dakota formation, the well will be plugged back and completed in the Fruitland Coal.

During 1994 it is planned to workover the following wells to increase production or return them to production:

1. CCU 17B-15 SW SE Section 17, T32N R04W Rio Arriba, NM
2. CCU 31B-5 SW NW Section 31, T32N R04W Rio Arriba, NM
3. CCU 15A-16 SE SE Section 15, T32N R05W Rio Arriba, NM
4. CCU 18B-13 SW SW Section 18, T32N R04W Rio Arriba, NM

Pictured Cliffs wells drilled and completed in 1993 were added to the Pictured Cliffs Participating Area where applicable during 1994.

It is Nassau's intent to spud and complete the entire listing of the above described wells by late fall of this year. If you have any questions, feel free to call Gary Johnson at (303) 321-2111.

If the above described Plan of Development is acceptable, please signify your concurrence of same as required under Section 10 of the Unit Agreement by executing and returning one copy of this letter to my attention.

A copy of this letter is being provided to the list of working interest owners described on the attachment to this letter.

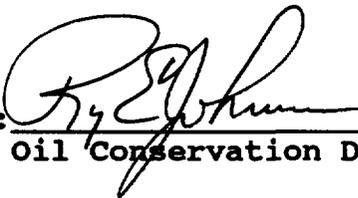
Very truly yours,

  
Gary J. Johnson  
V P Engineering

attachment

APPROVED: \_\_\_\_\_  
Bureau of Land Management

DATE: \_\_\_\_\_

APPROVED:  \_\_\_\_\_  
Oil Conservation Division

DATE: 3/24/95

The foregoing approvals are for the 1995 Plan of Development filed by Nassau Resources, Inc. for the Carracas Canyon Unit, #14-08-0001-19596, Rio Arriba County, New Mexico.

Working Interest Owners:

Amoco Production Company  
1670 Broadway  
P. O. Box 800  
Denver, Colorado 80201

Grynberg Petroleum  
5000 S. Quebec, Suite 500  
Denver, Colorado 80237

Dugan Production Corp.  
P. O. Box 420  
Farmington, New Mexico 87499

CNG Producing Company  
CNG Tower  
1450 Poydras Street  
New Orleans, LA 70112-6000

Frontier Oil & Gas Company  
1717 St. James Place, Suite 380  
Houston, TX 77056

Hegarty & Associates  
P. O. Box 64  
Farmington, New Mexico 87499

# NASSAU

Nassau Resources, Inc.  
650 South Cherry, Suite 1225  
Denver, Colorado 80222-1894  
(303) 321-2111 FAX (303) 321-1563

9030

March 17, 1994

United States Department of the Interior  
Bureau of Land Management  
Farmington Resource Area  
1235 La Plata Highway  
Farmington, New Mexico 87401

New Mexico Oil Conservation Division  
310 Old Santa Fe Trail  
Room 206  
Santa Fe, New Mexico 87503

Re: 1994 Plan of Development  
Carracas Canyon Unit Area  
Rio Arriba County, New Mexico

Gentlemen:

Pursuant to Article 10 of the Carracas Canyon Unit Agreement (No. 14-08-0001-19596), Nassau Resources, Inc., Operator, hereby submits for your approval our 1994 Plan of Development (POD).

## I. 1993 History

During 1993, four wells were drilled within the Carracas Unit. All of these wells were completed for production from the Pictured Cliffs formation. The wells, spud dates and dates of first delivery are as follows:

1. Carracas Unit PC 23B-13, SW SW Section 23, T32N R04W, Rio Arriba County, New Mexico. Spud 06/09/93. First delivered 07/01/93.
2. Carracas Unit PC 26B-3, NE NW Section 26, T32N R04W, Rio Arriba County, New Mexico. Spud 08/24/93. First delivered 10/01/93.
3. Carracas Unit PC 35B-8, SE NE Section 35, T32N R04W, Rio Arriba County, New Mexico. Spud 10/12/93. First delivered 11/02/93.
4. Carracas Unit PC 36B-11, NE SW Section 36, T32N R04W, Rio Arriba County, New Mexico. Spud 10/04/93. First delivered 10/26/93.

Carracas Unit 1993 production was 5,147,223 MCF gas, 43 BBL condensate and 127,135 BBL water. Production from the Fruitland Coal was 4,516,391 MCF gas, 43 BBL condensate and 125,629 BBL water while 630,832 MCF gas, 0 BBL condensate and 1506 BBL water were produced from the Pictured Cliffs formation. Cumulative production from the Carracas Unit is 20,187,404 MCF gas, 421 BBL condensate and 1,128,574 BBL water.

On January 1, 1993, there were 29 wells producing in the Carracas Unit. By December 31, 1993, the number producing had been increased to 47 wells. This increase was the result of the drilling mentioned above and returning of 14 wells to production. Return to production was facilitated by higher gas prices.

Nassau was unable to drill the remaining wells listed in its 1993 Plan of Development due to seasonal restrictions and the listing of the Mexican Spotted Owl under the Endangered Species Act.

## II. Plans for 1994

During 1994 it is planned to drill the following new wells:

### Fruitland Coal wells

1. 10B-15 SW SE Section 10, T32N R04W Rio Arriba, NM
2. 29B-8 SE NE Section 08, T32N R04W Rio Arriba, NM
3. 33B-11 SE SW Section 33, T32N R04W Rio Arriba, NM

### Pictured Cliffs wells

1. PC 26B-7 SW NE Section 26, T32N R04W Rio Arriba, NM
2. PC 23B-8 SE NE Section 23, T32N R08W Rio Arriba, NM

### Gallup formation test

1. GL 26B-7 SW NE Section 26, T32N R04W Rio Arriba, NM will be drilled as a Gallup test and dual completed with Pictured Cliffs if productive, or plugged back to the Pictured Cliffs if non-productive in the Gallup.

### Dakota Formation test

1. DK 10A-8 SE NE Section 10, T32N R05W Rio Arriba, NM  
or  
DK 9A-8 SE NE Section 9, T32N R05W Rio Arriba, NM  
The Dakota formation will be tested at one of these locations depending upon surface management agency approval. If the well drilled proves to be non-productive in the Dakota formation, the well will be plugged back and completed in the Fruitland Coal.

March 17, 1994  
1994 Plan of Development  
Page 3

During 1994 it is planned to workover the following wells to increase production or return them to production:

1. CCU 15B-7 SW NE Section 15, T32N R04W Rio Arriba, NM
2. CCU 31B-5 SW NW Section 31, T32N R04W Rio Arriba, NM
3. CCU 19B-1 NE NE Section 19, T32N R04W Rio Arriba, NM
4. CCU 18B-13 SW SW Section 18, T32N R04W Rio Arriba, NM

Pictured Cliffs wells drilled and completed in 1993 will be added to the Pictured Cliffs Participating Area where applicable during 1994.

It is Nassau's intent to spud and complete the entire listing of the above described wells by late fall of this year. If you have any questions, feel free to call Gary Johnson or myself at (303) 321-2111.

If the above described Plan of Development is acceptable, please signify your concurrence of same as required under Section 10 of the Unit Agreement by executing and returning one copy of this letter to my attention.

A copy of this letter is being provided to the list of working interest owners described on the attachment to this letter.

Very truly yours,

  
James C. Joda  
attachment

APPROVED: \_\_\_\_\_  
Bureau of Land Management

DATE: \_\_\_\_\_

APPROVED:  \_\_\_\_\_  
Oil Conservation Division

DATE: 3/22/94

The foregoing approvals are for the 1994 Plan of Development filed by Nassau Resources, Inc. for the Carracas Canyon Unit, #14-08-0001-19596, Rio Arriba County, New Mexico.

Working Interest Owners:

Amoco Production Company  
1670 Broadway  
P. O. Box 800  
Denver, Colorado 80201

Grynberg Petroleum  
5000 S. Quebec, Suite 500  
Denver, Colorado 80237

Dugan Production Corp.  
P. O. Box 420  
Farmington, New Mexico 87499

CNG Producing Company  
CNG Tower  
1450 Poydras Street  
New Orleans, LA 70112-6000

Frontier Oil & Gas Company  
1717 St. James Place, Suite 380  
Houston, TX 77056

Hegarty & Associates  
P. O. Box 64  
Farmington, New Mexico 87499

MAR. 07 1994

Carracas Canyon Unit (UA)  
3160 (07327)

Nassau Resources, Inc.  
Attn: James C. Joda  
650 S. Cherry St., Suite 1225  
Denver, CO 80222

Dear Mr. Joda:

On February 28, 1994 we received five originals of a ratification and joinder to the Carracas Canyon Unit Agreement and Unit Operating Agreement, Rio Arriba County, New Mexico.

The ratification and joinder was executed by Patrick Hegarty, lessee of record and working interest owner for lease number NMNM 28813. Lease number NMNM 28813 covers Lots 1, 2, 3, S $\frac{1}{2}$ NE $\frac{1}{4}$ , SE $\frac{1}{4}$ NW $\frac{1}{4}$ , E $\frac{1}{2}$ SW $\frac{1}{4}$ , SE $\frac{1}{4}$  of Sec. 9, T. 32 N., R. 5 W, NMPM, Rio Arriba County, New Mexico, and previously was a noncommitted lease. All the area in the referenced lease falls within the boundary of Carracas Canyon Unit. The 418.780 acres in the lease is described as Tract 3 on Exhibit "B" for Carracas Canyon Unit. Effective date for commitment to the unit for lease NMNM 28813 is March 1, 1994.

Pursuant to Section 28 of the unit agreement, this joinder is approved and lease number NMNM 28813 is considered effectively committed to the Carracas Canyon Unit. Copies of the ratification and joinder are being distributed to the appropriate Federal offices and two copies are returned herewith. It is requested that you notify all other interested parties of this approval.

If you have any questions, please contact Duane Spencer at (505) 599-6350.

Sincerely,

/s/ Duane Spencer

Duane W. Spencer  
Chief, Branch of Reservoir Management

Enclosures

2 - Ratification and Joinder of Unit  
Agreement and Unit Operating Agreement

bcc:  
Patrick Hegarty  
P.O. Box 64  
Farmington, NM 87499 (w/encl)

MMS, Denver, CO (w/encl)  
NMOCD Santa Fe, New Mexico

OIL CONSERVATION DIVISION  
RECEIVED

1994 MAR 27 PM 8 39

Carracas Unit  
Pictured Cliffs (PA)  
3180 (07327)

MAR. 01 1994

Mr. Gary Johnson  
Nassau Resources  
650 South Cherry, Suite 1225  
Denver, CO 80222-1894

Re: Paying Well Determination  
Carracas Unit  
Well No. 23B-13 PC  
SW $\frac{1}{4}$ SW $\frac{1}{4}$  Sec. 23, T. 32 N., R. 4 W.  
Rio Arriba County, New Mexico

Dear Mr. Johnson:

We have reviewed your application for a "Paying Well Determination" for the referenced well and concur with your determination that the well is capable of producing unitized substances from the Pictured Cliffs formation in paying quantities.

You may submit the SW $\frac{1}{4}$ SW $\frac{1}{4}$  of section 23 as a separate participating area (PA), or if you submit supporting data, you may include intervening acreage in the revision to make the proposed revision contiguous to the existing PA. Supporting data should include sufficient geological and engineering data to confirm that the intervening acreage is capable of production of unitized substances in paying quantities from a source common to the connected acreage blocks. Per the unit agreement, acreage included in the PA is to be in minimum subdivisions of 40 acres.

If you have any questions regarding this determination, contact Ray Hager at (505) 599-6366.

Sincerely,

/s/ Duane Spencer

Duane W. Spencer  
Chief, Branch of Reservoir Management

1 Enclosure:  
1 - Original Application

cc:  
MMS, RMP, MS-3240, Denver, CO (w/enclosure 1)  
Commissioner of Public Lands, Santa Fe, NM  
New Mexico Oil Conservation Division, Santa Fe, NM

CONSERVATION DIVISION  
RECEIVED

MAR 14 8 39 AM

MAR. 14 1994

Carracas Canyon Unit (FRCL "B" PA)  
3180 (07327)

CERTIFIED-RETURN RECEIPT REQUESTED  
P 866 760 337

Nassau Resources Inc.  
Attn: James C. Joda  
650 South Cherry, Suite 1225  
Denver, CO 80222-1894

Dear Mr. Joda:

Your application for the Initial Participating Area "B" and your application for the First Revision of the Participating Area "B" covering the Fruitland Coal formation is hereby approved. The wells involved and effective dates are as follows:

Participating Area	Well No.	Acreage	Eff. Date
Init. Fruitland Coal "B"	11-10A	S $\frac{1}{2}$ Sec.10-32N-5W	09/15/1989
	9-11A	S $\frac{1}{2}$ Sec.11-32N-5W	09/15/1989
1st Rev. Fruitland Coal "B"	1-14A	N $\frac{1}{2}$ Sec.14-32N-5W	12/01/1989

Please report production for the above wells under 891019596G which is the assigned number for Fruitland Coal Participating Area "B".

Under provisions of 43 CFR 3165.3, you may request an Administrative Review of the order described above. Such request, including all supporting documents, must be filed in writing within 20 business days of receipt of this notice and must be filed with the State Director, Bureau of Land Management, P.O. Box 27115, Santa Fe, New Mexico 87502-0115. Such request shall not result in a suspension of the order unless the reviewing official so determines. Procedures governing appeals from instructions, orders or decisions are contained in 43 CFR 3165.4 and 43 CFR 4.400 *et seq.*

If you have any questions, please contact Duane Spencer at (505) 599-6350.

Sincerely,

*/s/ Duane Spencer*

Duane W. Spencer  
Chief, Branch of Reservoir Management

Enclosure  
1 - Approved Exhibit "B"

bcc:  
MMS, RMP, MS-3240, Denver, CO (w/encl)  
NM94364 (w/encl)  
NMOCD (w/o encl)

OIL CONSERVATION DIVISION  
RECEIVED

1988 FEB 22 AM 9 38

Carracas Canyon Unit  
Initial Pictured Cliffs (PA)  
3183.5 (070)

FEB. 5 1988

**CERTIFIED--RETURN RECEIPT REQUESTED**  
**P 081 447 688**

Mr. James C. Joda  
Jerome P. McHugh & Associates  
Operating Affiliate: Nassau Resources Inc.  
650 South Cherry, Suite 1225  
Denver, CO 80222-1894

Dear Mr. Joda:

We have reviewed your application for approval to establish the Initial Participating Area for the Pictured Cliffs Formation in the Carracas Canyon Unit. The supporting well for the application is No. 7 Carracas Canyon Unit PC 22B located 1650' FNL and 1715' FEL, Sec. 22, T. 32 N., R. 4 W., Rio Arriba County, New Mexico. The proposed Participating Area is comprised of 160 acres located in the SW $\frac{1}{4}$ NE $\frac{1}{4}$ , Sec. 22, T. 32 N., R. 4 W.

Some of the parameters used in the economic review submitted with the application do not conform to current Participating Area Guidelines. An economic review was generated utilizing corrected parameters for the Paying Well Determination. The review concluded that the No. 7 Carracas Unit well PC 22B is capable of producing unitized substances in paying quantities.

Your application is hereby approved. Please report future production from the Pictured Cliffs Participating Area under 891019596A. The Effective Date of the Participating Area is August 6, 1992.

Enclosed for your convenience are current guidelines for submittal of Participating Area Applications.

If you have any questions, please contact Ray Hager at (505) 599-8959.

Sincerely,



Duane W. Spencer  
Chief, Branch of Reservoir Management

**2 Enclosures**

- 1 - Original Application
- 2 - Participating area Guidelines

**cc:**

MMS, RMP, MS-3240, Denver, CO (w/enclosure 1)  
Commissioner of Public Lands, Santa Fe, NM  
New Mexico Oil Conservation Division, Santa Fe, NM

**McHUGH**

OIL CONSERVATION DIVISION  
RECEIVED

Jerome P. McHugh & Associates  
Operating Affiliate: Nassau Resources, Inc.  
650 South Cherry, Suite 1225  
Denver, Colorado 80222-1894  
(303) 321-2111 FAX (303) 321-1563

January 18, 1993

'93 JAN 20 AM 8 43

Mr. Duane Spencer  
Bureau of Land Management  
Farmington Resource Area  
1235 La Plata Highway  
Farmington, New Mexico 87401

Mr. William LeMay  
New Mexico Oil Conservation Division  
310 Old Santa Fe Trail, Suite 206  
Santa Fe, New Mexico 87503

RE: Application for approval to establish the Initial Pictured  
Cliffs Formation Participating Area, Carracas Canyon Unit, No.  
14-08-0001-19596, Rio Arriba County, New Mexico

Gentlemen:

Nassau Resources, Inc., as unit operator for the Carracas Canyon Unit, respectfully requests your approval, pursuant to Section 11 of the unit agreement, of the selection of the lands indicated on the land ownership map, attached as Exhibit "A", to constitute the Initial Pictured Cliffs Formation Participating Area which encompasses 160.00 acres.

The schedule of lands attached hereto as Exhibit "B" describes the lands within the initial Pictured Cliffs Formation Participating Area and indicates the percentage of participation of the lease and tract with said area.

The Initial Pictured Cliffs Formation Participating Area is appropriate by virtue of the information obtained from the completion of the Carracas Unit #22B-7 PC located in the SW/4NE/4 of Section 22-T32N-R4W, NMPM. The Carracas Unit #22B-7 PC was spudded on June 16, 1990, drilled to a total depth of 3838' KB (Plugged Back at 3750' KB) and completed in the Fruitland Coal Formation through perforations at 3618' - 3632' KB. Following sand fracturing, the Fruitland Coal formation was completed for an initial potential of 69 MCFD - gas and 62 BWPD - water on July 20, 1990.

The Pictured Cliffs formation was completed in August of 1992 by perforating at 3722' - 3738'. Following sand fracturing, the Pictured Cliffs formation was completed for an initial potential of 1071 MCFD - gas on August 6, 1992 and date of first sales was August 7, 1992.

OK'd 1-26-93

1-22-93

D-Unit  
10/10  
The  
Ry

The Fruitland Coal formation has been isolated from the Pictured Cliffs formation by tubing and a packer set at 3682' KB. The Fruitland Coal is shut-in.

Pursuant to Section 11 of the Unit Agreement, the effective date of the Initial Pictured Cliffs Formation Participation Area should be August 1, 1992. Therefore, we request your approval as to the lands/leases indicated on Exhibits "A" and "B" for the Initial Pictured Cliffs Formation Participating Area effective August 1, 1992.

Very truly yours,



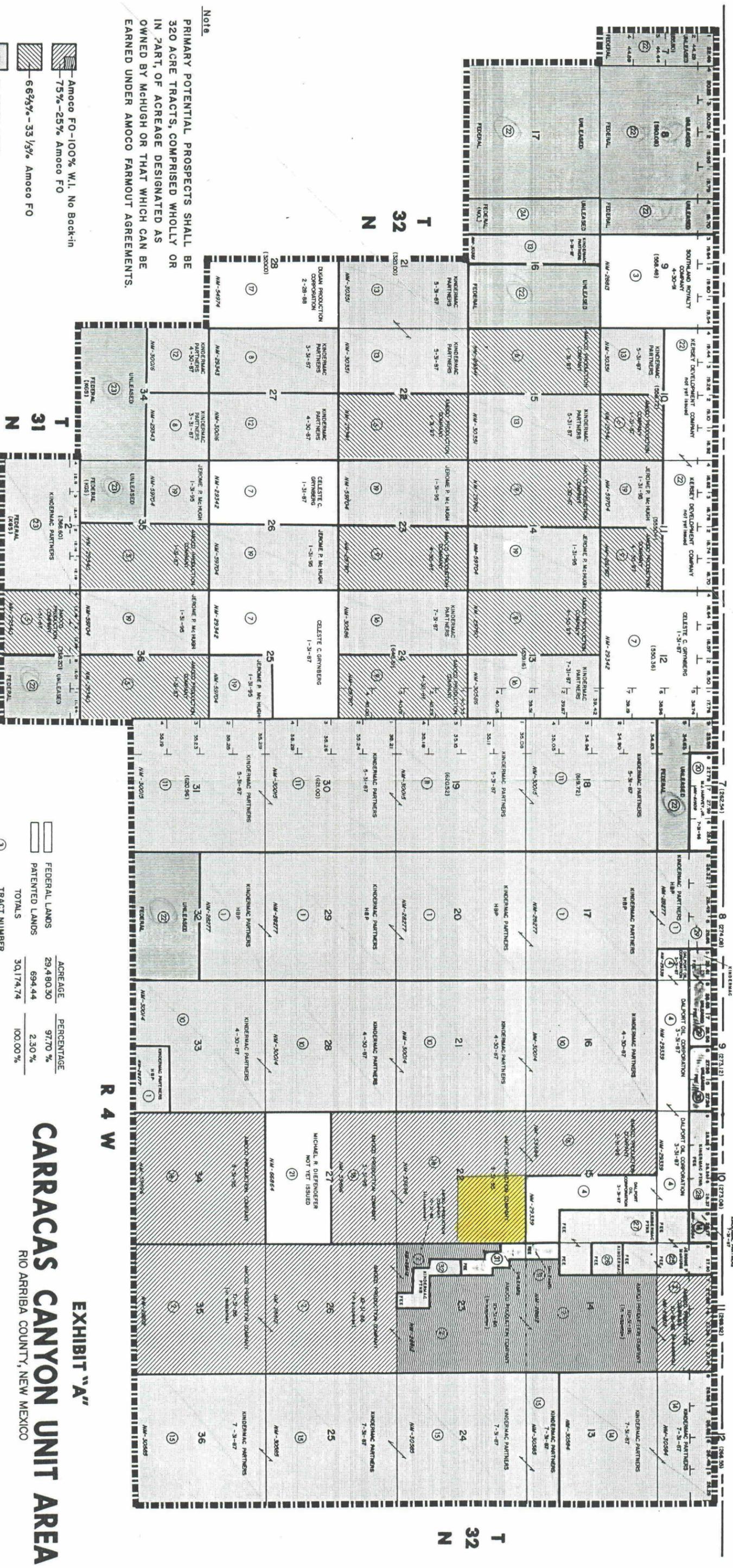
James C. Joda

/st  
enc.

R 5 W  
COLORADO  
SCHEDULE III

R 4 W

T 32 N



Note  
PRIMARY POTENTIAL PROSPECTS SHALL BE 320 ACRE TRACTS, COMPRISED WHOLLY OR IN PART, OF ACREAGE DESIGNATED AS OWNED BY McHUGH OR THAT WHICH CAN BE EARNED UNDER AMOCO FARMOUT AGREEMENTS.

- Amoco FO-100% W.L. No Back-in
- 75%-25% Amoco FO
- 66 2/3%-33 1/3% Amoco FO
- McHUGH 100%
- Unleased Federal Lands

ACREAGE	PERCENTAGE
29,480.30	97.70 %
694.44	2.30 %
<b>TOTALS</b>	<b>100.00 %</b>
30,174.74	

NOTE: UNLESS OTHERWISE INDICATED, THE VARIOUS SECTIONS ON THIS PLAT CONTAIN 640.00 ACRES.



*Proposed Initial Pictured Cliffs Participating Area*

EXHIBIT "A"  
**CARRACAS CANYON UNIT AREA**  
RIO ARRIBA COUNTY, NEW MEXICO

**NASSAU RESOURCES, INC.**  
DENVER, COLORADO