

EXHIBIT "B"  
FIRST REVISION OF FRUITLAND COAL FORMATION PARTICIPATING AREA "B", (B1)  
CARRACAS CANYON UNIT AREA  
RIO ARRIBA COUNTY, NEW MEXICO

| TRACT NO.                                                     | LEASE NO. OR<br>TYPE OF LAND  | DESCRIPTION                                               | PARTICIPATING<br>ACRES | PERCENT OF<br>PARTICIPATION | WORKING<br>INTEREST OWNERS                                       |
|---------------------------------------------------------------|-------------------------------|-----------------------------------------------------------|------------------------|-----------------------------|------------------------------------------------------------------|
| 9                                                             | USA NM-29760<br>100.00000000% | TOWNSHIP 32 NORTH, RANGE 5 WEST, NMPH<br>SECTION 14: NW/4 | 160                    | 16.66666666                 | AMOCO PRODUCTION CO.<br>(33.33%)<br>MCHUGH COMPANIES<br>(66.67%) |
| 19                                                            | USA NM-59704<br>100.00000000% | TOWNSHIP 32 NORTH, RANGE 5 WEST, NMPH<br>SECTION 14: NE/4 | 160                    | 16.66666666                 | MCHUGH COMPANIES<br>(100.00%)                                    |
| SUB TOTAL                                                     |                               |                                                           | 320                    | 33.33333332                 |                                                                  |
| PREVIOUSLY ESTABLISHED FRUITLAND COAL PARTICIPATING AREA "B": |                               |                                                           |                        |                             |                                                                  |
| 6                                                             | USA NM-29341<br>100.00000000% | TOWNSHIP 32 NORTH, RANGE 5 WEST, NMPH<br>SECTION 10: SE/4 | 160                    | 16.66666667                 | AMOCO PRODUCTION CO.<br>(33.33%)<br>MCHUGH COMPANIES<br>(66.67%) |
| 9                                                             | USA NM-29760<br>100.00000000% | TOWNSHIP 32 NORTH, RANGE 5 WEST, NMPH<br>SECTION 11: SE/4 | 160                    | 16.66666667                 | AMOCO PRODUCTION CO.<br>(33.33%)<br>MCHUGH COMPANIES<br>(66.67%) |
| 13                                                            | USA NM-30351<br>100.00000000% | TOWNSHIP 32 NORTH, RANGE 5 WEST, NMPH<br>SECTION 10: SW/4 | 160                    | 16.66666667                 | MCHUGH COMPANIES<br>(100.00%)                                    |
| 19                                                            | USA NM-59704<br>100.00000000% | TOWNSHIP 32 NORTH, RANGE 5 WEST, NMPH<br>SECTION 11: SW/4 | 160                    | 16.66666667                 | MCHUGH COMPANIES<br>(100.00%)                                    |
| TOTAL                                                         |                               |                                                           | 960                    | 100.00000000                |                                                                  |

**SUMMARY**  
**EXHIBIT "B"**  
**FIRST REVISION OF FRUITLAND COAL FORMATION PARTICIPATING AREA "B", (B1)**  
**CARRACAS CANYON UNIT AREA**  
**RIO ARRIBA COUNTY, NEW MEXICO**

| TYPE LAND | COMMITTED ACRES | NON-COMMITTED ACRES | PERCENT COMMITTED |
|-----------|-----------------|---------------------|-------------------|
| FEDERAL   | 960             | -0-                 | 100.00000000      |
| STATE     | -0-             | -0-                 | -0-               |
| PATENTED  | -0-             | -0-                 | -0-               |
| TOTAL     | 960             | -0-                 | 100.00000000      |

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

4. LEASE DESIGNATION AND SERIAL NO.

NM 59704

5. IF INDIAN, ALLOTTEE OR TRIBE NAME

7. UNIT AGREEMENT NAME

Carracas Unit

8. FARM OR LEASE NAME

Carracas Unit 14 A

9. WELL NO.

#1

10. FIELD AND POOL, OR WILDCAT

Basin Fruitland Coal

11. SEC., T., R., M., OR BLOCK AND SURVEY OR AREA

Sec. 14, T32N, R5W, NNPM

12. COUNTY OR PARISH  
Rio Arriba

13. STATE  
N.M.

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 ☐ DEEP EN ☐ PUG BACK ☐ DIFF. REMO. ☐ 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

1000' FNL - 680' FEL

At top prod. interval reported below

At total depth

14. PERMIT NO. API# DATE ISSUED  
30-039-24555 10/5/89

15. DATE SHUTTERED 10/12/89 16. DATE T.D. REACHED 10/20/89 17. DATE COMPL. (Ready to prod.) 12/5/89 18. ELEVATIONS (DV, RNB, RT, CR, ETC.)\* 7380' GL; 7393' KB 19. ELEV. CASINGHEAD 7380' GL

20. TOTAL DEPTH, MD & TVD 4234' KB 21. PLUG BACK T.D., MD & TVD 4198' KB 22. IF MULTIPLE COMPL., HOW MANY? NA 23. INTERVALS DRILLED BY ROTARY TOOLS TD CABLE TOOLS

24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\* 3960' - 3983' KB Basin Fruitland Coal 25. WAS DIRECTIONAL SURVEY MADE NO

26. TYPE ELECTRIC AND OTHER LOGS AT Compensated Neutron-Formation Density, Dual Induction-SFL, GR-CCL. 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 FULLED |
|-------------|-----------------|----------------|-----------|----------------------------|---------------|
| 9-5/8"      | 36#             | 345' KB        | 12-1/4"   | 159 cu.ft. circ. to surf.  | ---           |
| 5-1/2"      | 15.5#           | 4228' KB       | 8-3/4"    | 1493 cu.ft. circ. to surf. | ---           |
| See Reverse |                 |                |           |                            |               |

29. LINER RECORD

| SIZE | TOP (MD) | BOTTOM (MD) | SACKS CEMENT* | SCREEN (MD) | SIZE   | DEPTH SET (MD) | PACKER SET (MD) |
|------|----------|-------------|---------------|-------------|--------|----------------|-----------------|
| NA   |          |             |               |             | 2-7/8" | 3985' KB       | ---             |

31. PERFORATION RECORD (Interval, size and number)

3960 - 3983' KB 4 spf  
0.45" diam. holes  
Total of 92 perfs.

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

| DEPTH INTERVAL (MD) | AMOUNT AND KIND OF MATERIAL USED |
|---------------------|----------------------------------|
| 3960-3983' KB       | 500 gal. 15% HCL acid            |
|                     | 700 bbls. 35# GWX-9 fluid        |
|                     | 48,000# of 40/70 sand            |
|                     | 20,000# 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) |  |
|-----------------------|-----------------|----------------------------------------------------------------------|-------------------------|----------|------------|-------------------------|------------------------------------|--|
| 12/2/89*              |                 | Pumping                                                              |                         |          |            |                         | SI                                 |  |
| DATE OF TEST          | HOURS TESTED    | CHOKED SIZE                                                          | PROD'N. FOR TEST PERIOD | OIL—BBL. | GAS—MCF.   | WATER—BBL.              | GAS-OIL RATIO                      |  |
| 12/5/89               | 24 hrs.         | .250"                                                                | →                       | ---      | 31         | 150                     | ---                                |  |
| FLOW, TUBING PRESS.   | CASING PRESSURE | CALCULATED 24-HOUR RATE                                              | OIL—BBL.                | GAS—MCF. | WATER—BBL. | OIL GRAVITY-API (CORR.) |                                    |  |
| 281                   | 281             | →                                                                    | ---                     | 31       | 150        | ---                     |                                    |  |

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

Vented during test; to be sold.

TEST WITNESSED BY

Glenn Hise

35. LIST OF ATTACHMENTS

Flash hydrate carbons 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

OPERATOR

Admin. Asst.

JAN 02 1990  
DATE 12/7/89

FARMINGTON RESOURCE AREA

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

37. SUMMARY OF POROUS ZONES: (Show all important zones of porosity and contents thereof; cored intervals; and all drill-stem, tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures, and recoveries):

| FORMATION | TOP | BOTTOM | DESCRIPTION, CONTENTS, ETC.                                                                                                                                                                                                                                                                                                                                                                                                  | NAME                                                                                            | TOP         |                  |
|-----------|-----|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------|------------------|
|           |     |        |                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                 | MEAS. DEPTH | TRUE VERT. DEPTH |
|           |     |        | <p><u>Item #28</u></p> <p>Cemented 9-5/8" casing as follows:<br/> 135 sx of Class "B" w/ 2% CaCl w/<br/> 1/4#/sk celloflake (159 cu.ft.)</p> <p>Cemented 5-1/2" casing as follows:<br/> 10 bbls. mud flush<br/> 517 sx 65/35 poz w/ 12% gel, &amp; 1/4#/sk<br/> celloflake (1354 cu.ft.)<br/> 100 sx of 50/50 poz w/ 2% gel, 6-1/4#/sk<br/> kolseal &amp; 1/4#/sk celloflake<br/> (139 cu.ft.)<br/> Total of 1493 cu.ft.</p> | <p>Ojo Alamo 3293'</p> <p>Kirtland 3428'</p> <p>Fruitland 3710'</p> <p>Fruitland Coal 3960'</p> |             |                  |

38.

GEOLOGIC MARKERS

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

**DAILY REPORT**

**CARRACAS UNIT 14 A #1**

10-23-89 Pressure tested casing to 3500 psi & held for 10 minutes. Test good.

10-26-89 PBTD 4198' KB. Ran GR-CCL from 4158' to 3586' KB. Perforated with 4" guns, 0.45" diam. holes:

3960' to 3983' KB, 4 SPF  
 Total of 92 perfs.

10-30-89 Fraced with 35# GWX-9 fluid as follows:

|            |         |            |
|------------|---------|------------|
| 500 gal    | 15%     | HCL acid   |
| 40,000 gal | Pad     |            |
| 4,000 gal  | 2#/gal  | 40/70 sand |
| 4,000 gal  | 4#/gal  | 40/70 sand |
| 4,000 gal  | 6#/gal  | 40/70 sand |
| 4,000 gal  | 6#/gal  | 20/40 sand |
| 4,000 gal  | 8#/gal  | 20/40 sand |
| 6,400 gal  | 10#/gal | 20/40 sand |
| 5 bbl.     | Flush   |            |

Total load to recover 1700 bbls.  
 48,000# of 40/70 sand pumped  
 120,000# of 20/40 sand pumped  
 Pressure max 4000 psi Average 2450 psi  
 Injection rate max 50.6 bbl/min. Average 50.3 bbl/min  
 ISIP 3600 psi  
 SI 5 min. 2000 psi  
 10 min. 1500 psi  
 15 min. 1040 psi  
 Well SI at 3:30 pm on 10/30/89.  
 Well open to pit at 4:00 pm on 10/30/89.  
 Screened off on 10# sand.

10-31-89 TIH & RU pump and pit.  
 Cleaned out 1980' of frac sand to PBTD.  
 Circulated hole clean for 3 hours.  
 Landed 127 jts. of 2-7/8", 6.5#, J-55, EUE tubing.  
 Notch collar at 3985' KB.  
 Seating nipple at 3956' KB.  
 RU well head and prepared to run rods.  
 SION.

NASSAU RESOURCES, INC.  
Carracas Unit 14 A #1

11-1-89 Ran rods and pump as follows:

157 3/4" rods  
1 22' polish rod  
1 12' liner  
1 2-1/2" x 2" x 12' RWAC pump HF

4-4-91 MI and RU.

Disconnected pump jack. Opened well to pit.  
Pressure high. Flowed overnight. Shut down for day.

4-5-91

Attempted to unseat pump.  
Rods separated 2 jts. above pump. Box wore through.  
TOOH with 155 3/4" rods.  
Pressure tested to 500 psi (leak).  
RU BOP. TIH with 2-7/8" tubing. 30' of fill.  
TOOH with 125 jts. of 2-7/8" EUE tubing.  
Found 1 jt. split and 2 jts. with bad wear.  
Changed out 3 jts. of 2-7/8" EUE tubing.  
Retrieved 2 rods and pump.  
TIH with tubing. Pressure tested to 1,000 psi. Held ok.  
Retrieved standing valve.  
Rigged down BOP and set anchor. Anchor sheared.  
RU BOP. TOOH with tubing. Changed anchor.  
TIH with tubing and set anchor. Held okay.  
Rigged down BOP. RU well head. SI for weekend.

## **ENGINEERING REPORT**

### **Carracas Unit 14A #1**

Section 14, T32N, R05W

Rio Arriba County, New Mexico

Carracas Unit 14A #1, located 1000' FNL and 680' FEL of Section 14, Township 32 North, Range 5 West, was spudded on October 12, 1989. Total depth of 4234' was reached on October 20, 1989 and 5-1/2", 15.5 lb/ft casing was set. The Fruitland Coal was perforated at 3960' to 3983' with 4 shots per foot. The formation was fractured with 48,000 lbs 40/70 sand and 120,000 lbs 20/40 sand in 1700 barrels gelled water at 50.5 barrels per minute.

The well was first delivered at a rate of 53 MCFD on January 11, 1990.

The well has produced a cumulative of 222,597 MCF through October 31, 1992. The October, 1992 production was 7704 MCF and 650 BW for an average producing rate of 266 MCFD and 22 BWPD. October, 1992 gas sales were 7605 MCF. A listing of monthly production is attached.

### **ECONOMICS**

Based on October, 1992 sales of 7605 MCF, a wellhead price for gas of \$2.055 per MCF and operating expenses for this well of \$1956.14, the well is currently operating at a profit.

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

**ECONOMICS EXHIBIT**

December, 1992

Application for Approval of Participating Area

Carracas Unit 14A #1

NE NE Section 01, T32N R05W

Rio Arriba County, New Mexico

Well Costs: (based on actual costs) \$428,615

Production: Historical data attached. Projection made from historical data and current production rate and prices. Decline curve attached.

**Monthly Operating Cost:**

1989 average = \$0000 per month \*

1990 average = \$4302 per month \*

1991 average = \$4667 per month \*

1992 average = \$2654 per month \*

1993 est = \$2730 per month escalated at 4% per year.

General and Administrative Costs: \$400 per month are included in above monthly operating costs.

\* Monthly Operating Costs include General and Administrative cost, a gas marketing fee of \$.03/MCF, and a water disposal fee of \$.25/BBL

Working Interest: 100%

Net Revenue Interest: 80%

Discount Rate: 10%

Severance Tax: \$0.163 per MCF + 3.3% of net value

Ad Valorem Tax: 1.0% of adjusted revenue

**Gas Price:**

1989 average = \$1.216 per MCF \*

1990 average = \$1.076 per MCF \*

1991 average = \$0.878 per MCF \*

1992 average = \$1.339 per MCF \*

1993 est = \$1.500 per MCF escalated at 4% per year.

Date of First Production: January 11, 1990

Initial Production Rate: 1069 MCFD

Calculated Economic Reserves: 222,597 MCF Cumulative + 785,161 MCF remaining

# NASSAU RESOURCES, INC.

Multiphase Curve Analysis

Rate vs Time

(c) 1991, 1989 Dwrights, A SoftSearch Co.

CARRACAS UNIT 11A-9  
I 11 T32N R05W FRUITLAND COAL  
RIO ARriba COUNTY, NM

12/08/1992

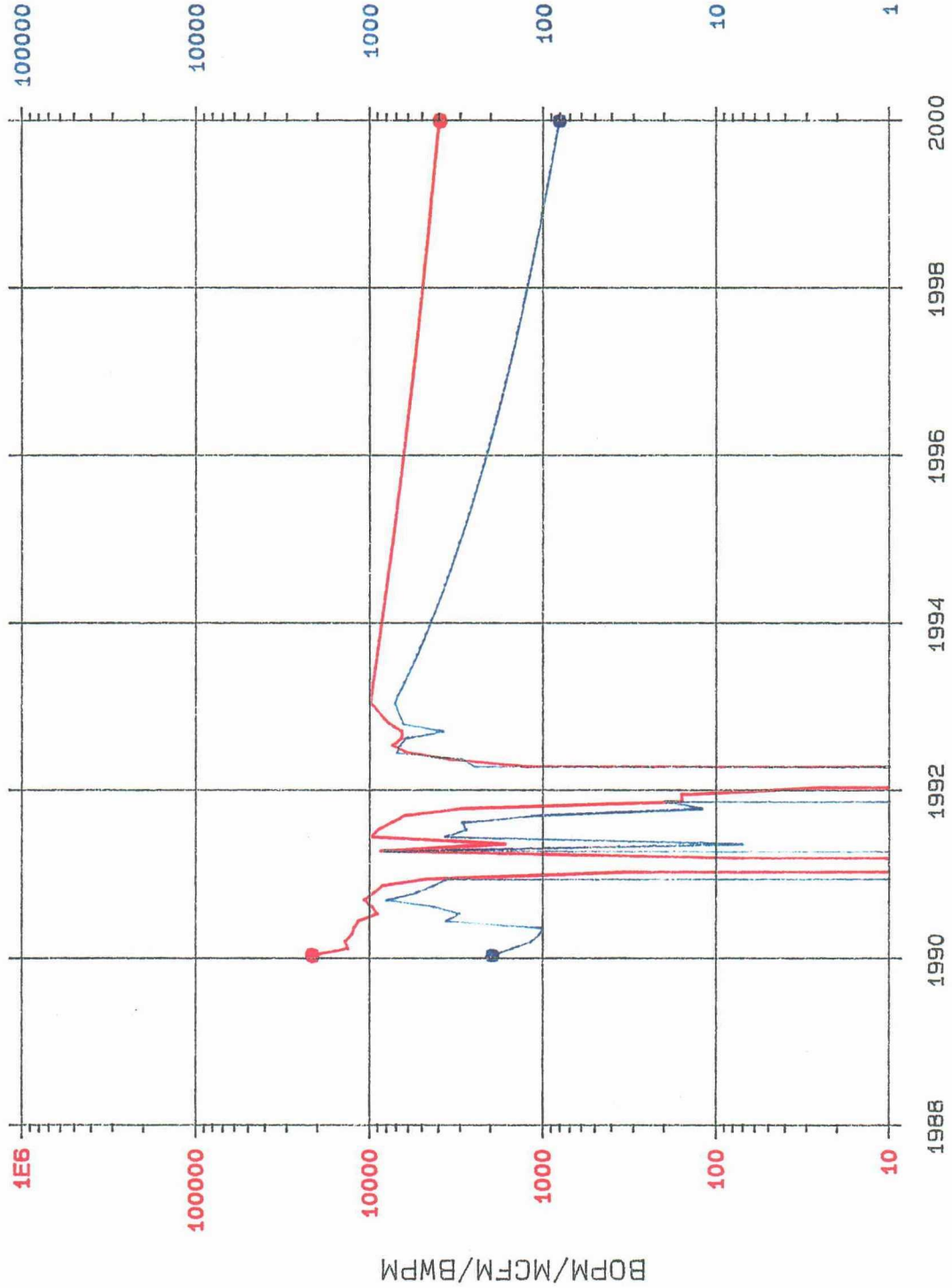
Project:

CCU 14A-1

## Production Curves

**GAS: • GAS DATA**  
0 History 1/90 - 10/92  
1 Hyperbolic 1/99 - 1/68  
Q1: 10000.000 MCF/M  
D1: 15.000 %  
n: 0.500  
Qe: 185.169 MCF/M  
De: 2.265 %  
Np: 1224.672 MMCF

**OTH: • OTHER DATA**  
0 History 1/90 - 10/92  
1 Hyperbolic 1/99 - 4/19  
Q1: 750.000 UNT/M  
D1: 40.000 %  
n: 0.500  
Qe: 9.994 UNT/M  
De: 6.394 %  
Np: 27.357 MUNT



OPERATOR: NASSAU RESOURCES, INC.  
 LSE WELLNO: CARRACAS UNIT 14A-1  
 FIELD: BASIN FRUITLAND COAL  
 COUNTY: RIO ARRIBA  
 STATE: NM

CCU 14A-1

DW LOC: A 14 32N 05W  
 FORMATION: FRUITLAND COAL  
 RSVR CLASS: PROVED PRODUCING  
 PROGRAM: AMOCO  
 JNT VNTURE: PA

BFIT 20 COLUMN REPORT  
 INDIVIDUAL WELL ANALYSIS  
 Report Date: JAN 1993  
 Discount Date: JAN 1993  
 Evaluation Date: JAN 1993

\*----- REPORT COMMENTARY -----\*

CARRACAS CANYON UNIT PARTICIPATING AREA  
 COMMERCIAL WELL DETERMINATION

\*----- DIVISION OF INTEREST -----\*

1st NONZERO WI 1/93 100.000000%  
 1st NONZERO NRI 1/93 80.000000%  
 FINAL W.I. 100.000000%  
 FINAL N.R.I. 80.000000%

\*----- PROFIT AND PRODUCTION INDICATORS -----\*

LIFE OF THE PROJECT 14 years 8 months  
 PAYOUT TERM N/A  
 ROI - DISCOUNTED N/A  
 ROI - UNDISCOUNTED N/A  
 INTERP. IRR > 400 %

| END OF<br>PERIOD<br>(MO/YR) | GROSS PRODUCTION           |                       | NET PRODUCTION             |                       | EFFECTIVE PRICES             |                         | NET REVENUE                 |                         |                     |                     |
|-----------------------------|----------------------------|-----------------------|----------------------------|-----------------------|------------------------------|-------------------------|-----------------------------|-------------------------|---------------------|---------------------|
|                             | OIL & CND<br>--(MBBL)----- | GAS & CGS<br>(MMCF)-- | OIL & CND<br>--(MBBL)----- | GAS & CGS<br>(MMCF)-- | OIL & CND<br>--(\$/BBL)----- | GAS & CGS<br>(\$/MCF)-- | OIL & CND<br>----(M\$)----- | GAS & CGS<br>(M\$)----- | OTHER<br>(M\$)----- | TOTAL<br>(M\$)----- |
| PRIOR                       |                            | 222.597               |                            |                       |                              |                         |                             |                         |                     |                     |
| 12/93                       | 0.000                      | 110.633               | 0.000                      | 88.507                | N/A                          | 1.53                    | 0.000                       | 135.344                 | 0.000               | 135.344             |
| 12/94                       | 0.000                      | 94.615                | 0.000                      | 75.692                | N/A                          | 1.59                    | 0.000                       | 120.293                 | 0.000               | 120.293             |
| 12/95                       | 0.000                      | 81.840                | 0.000                      | 65.472                | N/A                          | 1.65                    | 0.000                       | 107.984                 | 0.000               | 107.984             |
| 12/96                       | 0.000                      | 71.489                | 0.000                      | 57.192                | N/A                          | 1.71                    | 0.000                       | 97.760                  | 0.000               | 97.760              |
| 12/97                       | 0.000                      | 62.985                | 0.000                      | 50.388                | N/A                          | 1.77                    | 0.000                       | 89.157                  | 0.000               | 89.157              |
| 12/98                       | 0.000                      | 55.914                | 0.000                      | 44.731                | N/A                          | 1.83                    | 0.000                       | 81.832                  | 0.000               | 81.832              |
| 12/99                       | 0.000                      | 49.970                | 0.000                      | 39.976                | N/A                          | 1.89                    | 0.000                       | 75.532                  | 0.000               | 75.532              |
| 12/00                       | 0.000                      | 44.926                | 0.000                      | 35.940                | N/A                          | 1.95                    | 0.000                       | 70.065                  | 0.000               | 70.065              |
| 12/01                       | 0.000                      | 40.609                | 0.000                      | 32.487                | N/A                          | 2.01                    | 0.000                       | 65.283                  | 0.000               | 65.283              |
| 12/02                       | 0.000                      | 36.885                | 0.000                      | 29.508                | N/A                          | 2.07                    | 0.000                       | 61.068                  | 0.000               | 61.068              |
| SUB TOTAL                   | 0.000                      | 649.866               | 0.000                      | 519.893               |                              |                         | 0.000                       | 904.318                 | 0.000               | 904.318             |
| REMAINDER                   | 0.000                      | 135.295               | 0.000                      | 108.236               |                              |                         | 0.000                       | 241.471                 | 0.000               | 241.471             |
| TOTAL                       | 0.000                      | 785.161               | 0.000                      | 628.129               |                              |                         | 0.000                       | 1145.789                | 0.000               | 1145.789            |
| ULTIMATE                    |                            | 1007.758              |                            |                       |                              |                         |                             |                         |                     |                     |

| END OF<br>PERIOD<br>(MO/YR) | NET<br>EXPENSES<br>---(M\$)--- | NET PROD.<br>TAXES<br>---(M\$)--- | NET<br>W.P.T.<br>---(M\$)--- | TOTAL<br>EXP+TAXES<br>---(M\$)--- | NET CASH<br>OPER. INC.<br>---(M\$)--- | NET<br>INVESTMENT<br>---(M\$)--- | NET<br>RESALE<br>---(M\$)--- | NET OPERATING INCOME BFIT |                             |                        |
|-----------------------------|--------------------------------|-----------------------------------|------------------------------|-----------------------------------|---------------------------------------|----------------------------------|------------------------------|---------------------------|-----------------------------|------------------------|
|                             |                                |                                   |                              |                                   |                                       |                                  |                              | UNDISC<br>---(M\$)---     | DISC @ 10.00%<br>(M\$)----- | CUM DISC<br>(M\$)----- |
| 12/93                       | 32.756                         | 20.098                            | 0.000                        | 52.854                            | 82.490                                | 0.000                            | 0.000                        | 82.490                    | 78.295                      | 78.295                 |
| 12/94                       | 32.752                         | 17.383                            | 0.000                        | 50.135                            | 70.159                                | 0.000                            | 0.000                        | 70.159                    | 60.278                      | 138.573                |
| 12/95                       | 33.122                         | 15.205                            | 0.000                        | 48.327                            | 59.657                                | 0.000                            | 0.000                        | 59.657                    | 46.398                      | 184.971                |
| 12/96                       | 33.694                         | 13.429                            | 0.000                        | 47.123                            | 50.637                                | 0.000                            | 0.000                        | 50.637                    | 35.650                      | 220.621                |
| 12/97                       | 34.391                         | 11.962                            | 0.000                        | 46.353                            | 42.804                                | 0.000                            | 0.000                        | 42.804                    | 27.280                      | 247.901                |
| 12/98                       | 35.171                         | 10.734                            | 0.000                        | 45.905                            | 35.927                                | 0.000                            | 0.000                        | 35.927                    | 20.728                      | 268.629                |
| 12/99                       | 36.010                         | 9.696                             | 0.000                        | 45.706                            | 29.826                                | 0.000                            | 0.000                        | 29.826                    | 15.579                      | 284.208                |
| 12/00                       | 36.893                         | 8.810                             | 0.000                        | 45.703                            | 24.362                                | 0.000                            | 0.000                        | 24.362                    | 11.521                      | 295.729                |
| 12/01                       | 37.809                         | 8.047                             | 0.000                        | 45.857                            | 19.426                                | 0.000                            | 0.000                        | 19.426                    | 8.318                       | 304.047                |
| 12/02                       | 38.752                         | 7.386                             | 0.000                        | 46.137                            | 14.931                                | 0.000                            | 0.000                        | 14.931                    | 5.789                       | 309.836                |
| SUB TOTAL                   | 351.350                        | 122.750                           | 0.000                        | 474.100                           | 430.219                               | 0.000                            | 0.000                        | 430.219                   | 309.836                     |                        |
| REMAINDER                   | 193.812                        | 27.841                            | 0.000                        | 221.653                           | 19.818                                | 0.000                            | 0.000                        | 19.818                    | 6.691                       |                        |
| TOTAL                       | 545.162                        | 150.591                           | 0.000                        | 695.753                           | 450.037                               | 0.000                            | 0.000                        | 450.037                   | 316.527                     |                        |

| *----- PRESENT WORTH PROFILE -----* |         |             |     |         |             |     |         |             |     |               |
|-------------------------------------|---------|-------------|-----|---------|-------------|-----|---------|-------------|-----|---------------|
| 1 -                                 | 5.00 %  | 373.619 M\$ | 3 - | 15.00 % | 272.942 M\$ | 5 - | 30.00 % | 190.175 M\$ | 7 - | 70.00 % 102.9 |
| 2 -                                 | 10.00 % | 316.528 M\$ | 4 - | 20.00 % | 238.976 M\$ | 6 - | 50.00 % | 133.886 M\$ |     |               |

OPERATOR: NAASSAU RESOURCES, INC.  
LSE WELLNO: CARRACAS UNIT 14A-1  
FIELD: BASIN FRUITLAND COAL  
COUNTY: RIO ARRIBA  
STATE: NM

CCU 14A-1  
INPUT DATA SUMMARY  
INDIVIDUAL WELL ANALYSIS

DW LOC: A 14 32N 05W  
FORMATION: FRUITLAND COAL  
RSVR CLASS: PROVED PRODUCING  
PROGRAM: AMOCO  
JNT VNTURE: PA

\*----- REPORT COMMENTARY -----\*  
CARRACAS CANYON UNIT PARTICIPATING AREA  
COMMERCIAL WELL DETERMINATION

\*----- CALCULATION PARAMETERS -----\*  
PROJECT START DATE: 1/93  
PRODUCTION REVENUE START DATE: 1/93  
EVALUATION START DATE: 1/93  
METHOD OF PAYOUT: STREAM VALUE  
PAYOUT ON STREAM: COI UNDISCOUNTED  
CUM VALUE TO PAYOUT: \$

\*----- CALCULATION PARAMETERS -----\*  
TYPE OF INTEREST: OUTSIDE EVAL INTEREST  
OUTSIDE WORKING INTEREST: 100.000000 %  
NET REVENUE INTEREST: 80.000000 %  
BASE CASE DISCOUNT RATE: 10.00 %  
PROJ BASE CASE DSC RATE: 10.00 %

4. WELL SCHEDULING

GAS (2), 0, 1/93  
1, SCHED (1), 1, NO ESCAL, NO LIMIT, PROJECT LIFE (9)

5. DIVISION OF INTEREST SCHEDULING

EWI (1), 0, 1/93  
1, SCHED (1), 100.000000 %, PROJECT LIFE (10)  
NRI-O/A(4), 0, 1/93  
1, SCHED (1), 80.000000 %, PROJECT LIFE (10)

6. PRODUCTION SCHEDULING

GAS (2), 0, HST (2), 222.597 MMCF, 01/93 STANDARD  
1, HYP (4), 10000.000 MCF/M (2), 184.807 MCF/M (2), EXP 0.50, DEC 15.000, CUM PROD (2), 2500.000, MMCF (2)  
OTH-P (3), 0, HST (2), 9.486 MUNT, 01/93 STANDARD  
1, HYP (4), 750.000 UNT/M (2), 9.994 UNT/M (2), EXP 0.50, DEC 40.000, ADD TIME (5), 26-Y 4-M

7. PRICE SCHEDULING

GAS (2), 0, 1/93  
1, SCHED (1), 1.50 \$/MCF (2), AS04 , 3.50, PROJECT LIFE (9)

8. EXPENSE SCHEDULING

DIR OPER (1), 0, 1/93  
1, SCHED (1), 2260.00 \$/W/M (3), AS04 , NO LIMIT, PROJECT LIFE (9)  
VAR-GAS (8), 0, 1/93  
1, SCHED (1), 0.03 \$/MCF (4), NO ESCAL, NO LIMIT, PROJECT LIFE (9)  
VAR-OTH-P(9), 0, 1/93  
1, SCHED (1), 0.25 \$/UNT (4), AS04 , 2.00, PROJECT LIFE (9)  
VAR-Ot-A(12), 0, 1/93  
1, SCHED (1), 0.25 \$/UNT (4), AS04 , 2.00, PROJECT LIFE (9)

9. TAX SCHEDULING

SEV (1), NEW MEXICO, OIL, 7.080 %, 0.000000 \$/BBL, GAS, 3.330 %, 0.163000 \$/MCF  
AD VAL (2), % OF ADJUSTED REVENUE - 1.00 %, FIXED AMOUNT - 0.000,  
GAS SEV-LIST (8), FOR 0-Y 0-M

ADVAL -LIST (9),        FOR 0-Y 0-M  
NET WPT-LIST(10),      FOR 0-Y 0-M  
GRS WTP-LIST(11),      FOR 0-Y 0-M  
T3 ABP -LIST(12),      FOR 0-Y 0-M

10. INVESTMENT SCHEDULING

\*\*\* INVESTMENTS NOT SCHEDULED \*\*\*

11. LOANS SCHEDULING

\*\*\* LOANS NOT SCHEDULED \*\*\*

12. STREAM ADJUSTMENT SCHEDULING

\*\*\* STREAM ADJUSTMENTS NOT SCHEDULED \*\*\*

## HISTORIC DATA LISTING

CCU 14A-1

GAS

STANDARD

TIME DEC  
SEG TYPEEND  
CONDITION

-----

-----

0 HST 222.597 MMCF

01/93

## HISTORIC DATA: MCF

## PRIOR PRODUCTION:

0.000 MMCF

1/ 1/90 - 1/31/90 21381.000  
 2/ 1/90 - 2/28/90 13271.000  
 3/ 1/90 - 3/31/90 13915.000  
 4/ 1/90 - 4/30/90 12599.000  
 5/ 1/90 - 5/31/90 12201.000  
 6/ 1/90 - 6/30/90 11531.000  
 7/ 1/90 - 7/31/90 8999.000  
 8/ 1/90 - 8/31/90 9742.000  
 9/ 1/90 - 9/30/90 10785.000

10/ 1/90 - 10/31/90 9476.000  
 11/ 1/90 - 11/30/90 8431.000  
 12/ 1/90 - 12/31/90 4702.000  
 1/ 1/91 - 1/31/91 342.000  
 2/ 1/91 - 2/28/91 0.000  
 3/ 1/91 - 3/31/91 76.000  
 4/ 1/91 - 4/30/91 8697.000  
 5/ 1/91 - 5/31/91 1638.000  
 6/ 1/91 - 6/30/91 9894.000

## HISTORIC DATA: MCF

7/ 1/91 - 7/31/91 8891.000  
 8/ 1/91 - 8/31/91 7395.000  
 9/ 1/91 - 9/30/91 6269.000  
 10/ 1/91 - 10/31/91 2946.000  
 11/ 1/91 - 11/30/91 155.000  
 12/ 1/91 - 12/31/91 159.000  
 1/ 1/92 - 1/31/92 25.000  
 2/ 1/92 - 2/29/92 0.000  
 3/ 1/92 - 3/31/92 0.000

4/ 1/92 - 4/30/92 1237.000  
 5/ 1/92 - 5/31/92 3458.000  
 6/ 1/92 - 6/30/92 6176.000  
 7/ 1/92 - 7/31/92 7431.000  
 8/ 1/92 - 8/31/92 6549.000  
 9/ 1/92 - 9/30/92 6522.000  
 10/ 1/92 - 10/31/92 7704.000

1 HYP 10000.000 MCF/M 184.807 MCF/M 0.50 15.000 2 2500.000 MMCF CUM

OTHER - PRIMARY

STANDARD

TIME DEC  
SEG TYPEEND  
CONDITION

-----

-----

0 HST 9.486 MUNT

01/93

HISTORIC DATA LISTING  
CCU 14A-1

OTHER - PRIMARY

STANDARD

TIME DEC  
SEG TYPE  
-----

END  
CONDITION  
-----

HISTORIC DATA: UNT

|                   |         |
|-------------------|---------|
| 1/ 1/90 - 1/31/90 | 198.000 |
| 2/ 1/90 - 2/28/90 | 153.000 |
| 3/ 1/90 - 3/31/90 | 119.000 |
| 4/ 1/90 - 4/30/90 | 106.000 |
| 5/ 1/90 - 5/31/90 | 100.000 |
| 6/ 1/90 - 6/30/90 | 370.000 |
| 7/ 1/90 - 7/31/90 | 305.000 |
| 8/ 1/90 - 8/31/90 | 430.000 |
| 9/ 1/90 - 9/30/90 | 815.000 |

PRIOR PRODUCTION:

0.000 MUNT

|                     |         |
|---------------------|---------|
| 10/ 1/90 - 10/31/90 | 551.000 |
| 11/ 1/90 - 11/30/90 | 434.000 |
| 12/ 1/90 - 12/31/90 | 357.000 |
| 1/ 1/91 - 3/31/91   | 0.000   |
| 4/ 1/91 - 4/30/91   | 845.000 |
| 5/ 1/91 - 5/31/91   | 7.000   |
| 6/ 1/91 - 6/30/91   | 378.000 |
| 7/ 1/91 - 7/31/91   | 277.000 |
| 8/ 1/91 - 8/31/91   | 299.000 |

HISTORIC DATA: UNT

|                     |         |
|---------------------|---------|
| 9/ 1/91 - 9/30/91   | 117.000 |
| 10/ 1/91 - 10/31/91 | 12.000  |
| 11/ 1/91 - 11/30/91 | 20.000  |
| 12/ 1/91 - 3/31/92  | 0.000   |
| 4/ 1/92 - 4/30/92   | 256.000 |
| 5/ 1/92 - 5/31/92   | 298.000 |
| 6/ 1/92 - 6/30/92   | 715.000 |
| 7/ 1/92 - 7/31/92   | 671.000 |
| 8/ 1/92 - 8/31/92   | 626.000 |

|                     |         |
|---------------------|---------|
| 9/ 1/92 - 9/30/92   | 377.000 |
| 10/ 1/92 - 10/31/92 | 650.000 |

|   |     |               |             |      |        |   |                   |     |
|---|-----|---------------|-------------|------|--------|---|-------------------|-----|
| 1 | HYP | 750.000 UNT/M | 9.994 UNT/M | 0.50 | 40.000 | 5 | [26]-YRS [ 4]-MOS | ADD |
|---|-----|---------------|-------------|------|--------|---|-------------------|-----|

# McHUGH

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

April 19, 1993

United States Department of the Interior  
Bureau of Land Management  
Farmington District Office  
Attn: Mr. Duane Spencer  
1235 La Plata Highway  
Farmington, New Mexico 87401

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

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

**APPLICATION FOR APPROVAL OF THE INITIAL PARTICIPATING AREA "C"  
FOR THE FRUITLAND COAL FORMATION**

Gentlemen:

Nassau Resources, Inc., as Unit Operator for the Carracas Canyon Unit Area, which unit agreement was approved by the Bureau of Land Management effective January 30, 1987 and pursuant to the terms of Section 10 thereof, respectfully submits for your approval the selection of the following described lands to constitute the Initial Fruitland Coal Participating Area "C", to wit;

Township 32 North, Range 4 West, NMPM  
Section 15: E/2

ACRES INCLUDED IN INITIAL PARTICIPATING AREA: 320.00

In support of this application, the following numbered items are attached hereto and made a part hereof:

- (1) An ownership map showing thereon the boundary of the unit area and the participating area as proposed herein.
- (2) A schedule showing the lands entitled to participation in the unitized substances produced from the Fruitland Coal formation in the proposed participating area with the percentage of each lease or tract indicated thereon.

Enclosed herein, in triplicate, a geological and engineering report with accompanying maps supporting and justifying the proposed selection of lands for inclusion in the Initial Fruitland Coal Participating Area "C".

April 19, 1993  
Bureau of Land Management  
Page 2

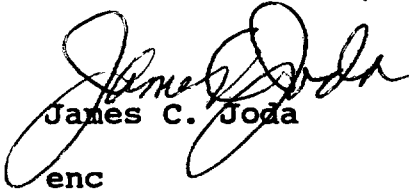
This proposed Initial Fruitland Coal Participating Area "C" is predicated upon the knowledge first obtained upon completion in paying quantities under the terms of the unit agreement of the following well(s):

Well Name : Carracas Unit 15B-#7  
Location: 1650' FNL - 1850' FEL, (SW/4NE/4 15-32N-R04W)  
Completion Date: 9/19/89  
First Sales: 10/27/89  
Formation: Basin Fruitland Coal  
Producing Interval: 3357' - 3400' KB, Basin Fruitland Coal  
Initial Production: 71.8 MCF, 287 BBL Water, (24 hrs.)

Applicant respectfully requests your approval of the hereinabove selection of lands to constitute the Initial Fruitland Coal Participating Area "C" to be effective September 19, 1989.

Sincerely,

NASSAU RESOURCES, INC.

  
James C. Joda  
enc

R 5 W

COLORADO

SCHEDULE III

R 4 W

T 32 N

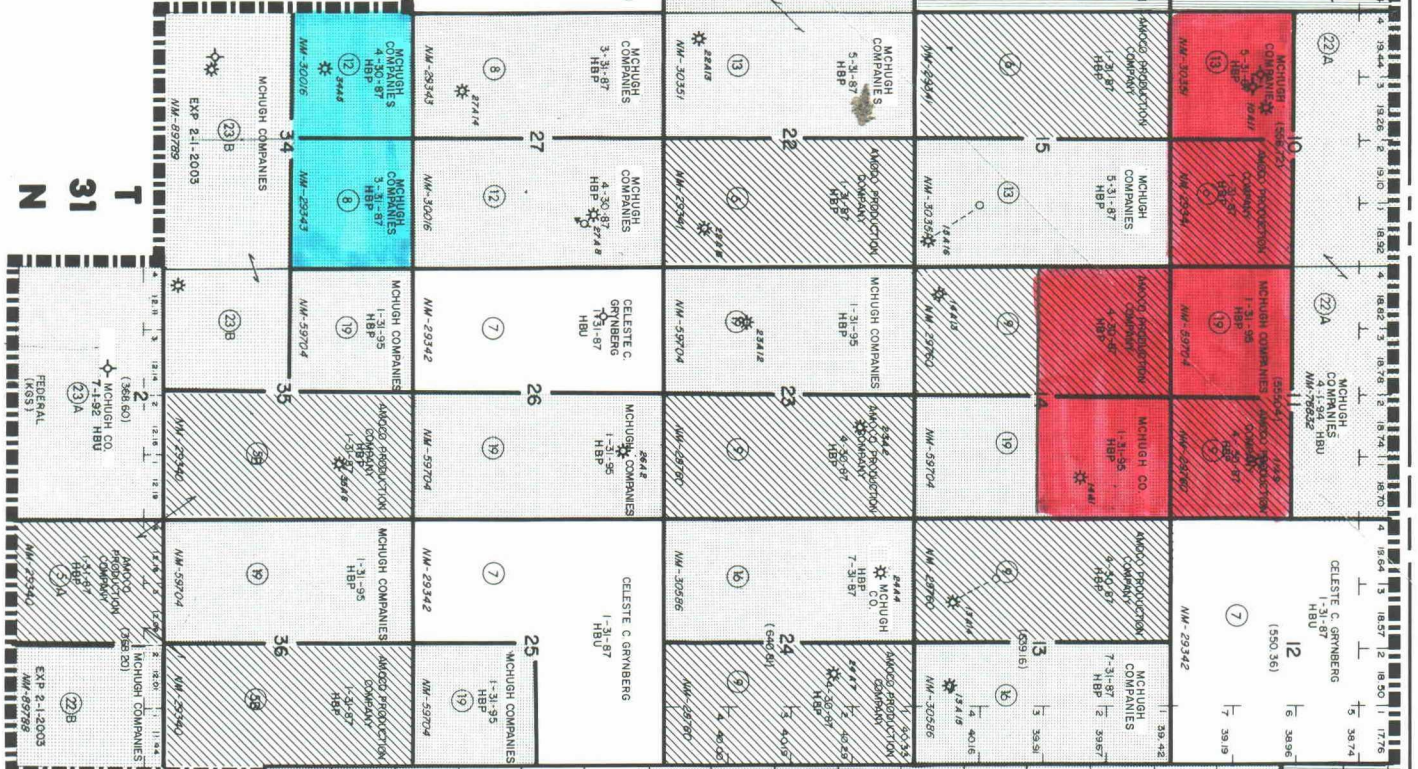
T 32 N

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

Frithland Coal Participating Area "A"  
Frithland Coal Participating Area "B"  
Proposed Frithland Coal Participating Area "C"

R 5 W



|                | ACREAGE   | PERCENTAGE |
|----------------|-----------|------------|
| FEDERAL LANDS  | 29,480.30 | 97.70 %    |
| PATENTED LANDS | 694.44    | 2.30 %     |
| TOTALS         | 30,174.74 | 100.00 %   |

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



R 4 W

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

NASSAU RESOURCES, INC.  
DENVER, COLORADO