

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

TRACT NO.	LEASE NO. OR TYPE OF LAND	DESCRIPTION	PARTICIPATING ACRES	PERCENT OF PARTICIPATION
18	USA NM-59696 100.00000000%	TOWNSHIP 32 NORTH, RANGE 4 WEST, NMPH SECTION 22: NE/4	160	100.00000000
		TOTALS	160	100.00000000

SUMMARY  
EXHIBIT "B"  
INITIAL PICTURED CLIFFS FORMATION PARTICIPATING AREA  
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

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

SUBMIT IN DUPLICATE

(See other In-  
struction  
reverse)Budget Number 1004-0001  
Expires August 31, 1985WELL COMPLETION OR RECOMPLETION REPORT ~~AND LOG~~ \*1a. TYPE OF WELL: OIL WELL ☐ GAS WELL ☒ DRY ☐ Other BLM

## b. TYPE OF COMPLETION:

NEW WELL ☐ WORK OVER ☒ DEEP-EN ☐ PIG BACK ☐ DIFF. REMOVAL ☒ Other 92 AUG -7 AM 7:57

## 2. NAME OF OPERATOR

NASSAU RESOURCES, INC..

019 FARMINGTON, N.M.

## 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 1650' FNL - 1715' FEL

At top prod. interval reported below

At total depth

## 14. PERMIT NO.

30-039-24719

## DATE ISSUED

Sundry  
7/29/92

## 12. COUNTY OR PARISH

Rio Arriba

## 13. STATE

NM

## 15. DATE SPUDDED

6/16/90

## 16. DATE T.D. REACHED

6/21/90

## 17. DATE COMPL. (Ready to prod.)

Recompletion 8/6/92

## 18. ELEVATIONS (DF, RMB, RT, GB, ETC.)\*

6754' GL; 6767' KB

## 19. ELEV. CABINGHEAD

6754' GL

## 20. TOTAL DEPTH, MD &amp; TVD

3830' KB

## 21. PLUG, BACK T.D., MD &amp; TVD

3750' KB

## 22. IF MULTIPLE COMPL., 2

HOW MANY\*  
Fr. Coal is TA

## 23. INTERVALS

DRILLED BY  
TD

## ROTARY TOOLS

TD

## CABLE TOOLS

CABLE TOOLS

## 24. PRODUCING INTERVAL(S), OF THIS COMPLETION—TOP, BOTTOM, NAME (MD AND TVD)\*

3722'-3738' Undesignated Pictured Cliffs

## 25. WAS DIRECTIONAL SURVEY MADE

NO

## 26. TYPE ELECTRIC AND OTHER LOGS RUN

GR-CCL

## 27. WAS WELL CORRED

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#	314'	12-1/4"		---
5-1/2"	17#	3830'	8-3/4"	No change from original completion	---

## 29. LINER RECORD

SIZE	TOP (MD)	BOTTOM (MD)	BACKS CEMENT*	SCREEN (MD)	SIZE	DEPTH SET (MD)	PACKER SET (MD)
NA					2-7/8"	3682' KB	3682' KB

## 31. PERFORATION RECORD (Interval, size and number)

3722'-3738', 2 spf, 0.5" diam.

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

DEPTH INTERVAL (MD)	AMOUNT AND KIND OF MATERIAL USED
3722'-3738'	500 gal. 7.5% HCL acid
	789 bbls. YF-130 X-link gel
	60,300# of 20/40 sand

## 33.\* PRODUCTION

DATE FIRST PRODUCTION 7-28-92*	PRODUCTION METHOD (Flowing, gas lift, pumping—size and type of pump) Flowing	WELL STATUS (Producing or shut-in)
DATE OF TEST	HOURS TESTED	CHOKE SIZE
		PROD'N. FOR TEST PERIOD
		OIL—BBL.
		GAS—MCF.
		WATER—BBL.
		OIL GRAVITY-API (CORR.)

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

BY PT

## 35. LIST OF ATTACHMENTS \*1st hydrocarbons to well bore from Pictured Cliffs formation during completion operations. P.C. formation top is 3666'.

## 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

8/6/92

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

OPERATOR

**JEROME P. MCHUGH/NASSAU RESOURCES, INC.**

P O BOX 809  
 FARMINGTON, N.M. 87499-0809  
 505 326-7793  
 FAX NUMBER 505 327-0859

**PICTURED CLIFFS RECOMPLETION**

**Carracas Unit 22 B #7**

- 7-21-92 Moved in and rigged up. Vented tubing for 2 hours.  
 TOOH with 102 jts. of 3/4" rods and  
 41 jts. of 7/8" rods  
 1 - 4' x 7/8" pony rod.  
 Shut down for day.
- 7-22-92 Rigged down rig and moved to next location.
- 7-27-92 Moved on location and rigged up. Installed BOP.  
 TOH with tubing. TIH with casing scraper and 4-3/4" bit.  
 Circulated hole clean to 3780'.  
 Pulled up to 3600'. Shut down for the day.
- 7-28-92 TOH and laid down bit and casing scraper.  
 Rigged up Petro Wireline and ran correlation log.  
 Perforated Pictured Cliffs interval 3722-3738',  
 2 spf using 0.5" perforating guns.  
 TIH with lock set packer and set at 3671'.  
 Swabbed tubing dry (5 bbls. H<sub>2</sub>O), no gas.  
 Shut in well and installed test gauge on tubing.  
 Casing & tubing pressure at zero psi.  
 Shut down for night.
- 7-29-92 Tubing pressure 160 psi.  
 Made 1 swab run. No water in hole.  
 Rigged up Dowell for acid breakdown.  
 Pumped 2 bbls. of produced filtered water followed by 500  
*gal* bbl. 7.5% HCL with 64 frac balls dropped at 4 balls per  
 bbl. Pressures during pumping were:
- |                         |              |
|-------------------------|--------------|
| 2 bbls. water at 5 bpm  | 50 psi       |
| 18 bbls. acid at 4 bpm  | 0 psi        |
| 23 bbls. water at 1 bpm | 190-300 psi* |
- \*Pumping pressure after tubing was filled  
 was 2900-3000 psi.
- Total ball-off achieved. Surged balls back by bleeding  
 off pressure.  
 Swabbed tubing dry. Shut in well.
- 7-30-92 Tubing pressure 960 psi.  
 Bled off to zero psi in 10 min. through 3/4" choke.  
 Swabbed well. No fluid.  
 TIH with sand line and standing valve.

**NASSAU RESOURCES, INC.**  
**Carracas Unit 22 B #7**

7-30-92 Pressure tested tubing to 3500 psi. Held for 5 min.  
 (cont.) Released standing valve and pulled out of hole with  
 sand line.  
 Shut down for day.

7-31-92 Tubing pressure 960 psi.  
 Rigged up Dowell for frac.  
 Began fracing at 4:02 PM with YF-130 X-link gel and  
 20/40 sand. Pumped as follows:

290 bbls. pad at 1831 psi at 18 bpm.  
 60 bbls. w/ 1.0#/gal. sand at 1712 psi at 18 bpm.  
 37 bbls. w/ 1.5#/gal. sand at 1735 psi at 18 bpm.  
 116 bbls. w/ 2.0#/gal. sand at 1845 psi at 18 bpm.  
 63 bbls. w/ 3.0#/gal. sand at 2129 psi at 19.5 bpm.  
 39 bbls. w/ 3.5#/gal. sand at 2261 psi at 20 bpm.  
 110 bbls. w/ 4.0#/gal. sand at 2271 psi at 20 bpm.  
 74 bbls. w/ 5.0#/gal. sand at 3117 psi at 20 bpm.  
 4 bbls. flush.

Frac screened out at 827 bbl. (gel plus sand)  
 at 3300 psi.  
 Total fluid used: 789 bbls. YF-130 X-link gel.  
 Total sand injected: 68,000 lbs. 20/40 sand.  
 Total sand on formation: 60,300 lbs.

Treating pressures:  
 Ave. 2000 psi Final 3300 psi  
 15 min. SIP 14 psi (not valid due to screen-off).

No communication between zones during frac, as measured  
 measured by monitoring well annulus.

Shut in well.

8-1-92 Tubing pressure and casing pressure zero.

8-3-92 SI tubing pressure 850 psi.  
 Rigged up Otis coiled tubing truck for nitrogen  
 clean-out.  
 Started in hole with coiled tubing and hit sand at 2890'.  
 Washed down with 200 SMF nitrogen and Halco suds to  
 3780'.  
 Circulated hole clean.  
 Shut down nitrogen at 2500'.  
 Well continued flowing at 300 psi through 3/16" choke for  
 1 hr. (1073 mcf)  
 Shut down for night.

**NASSAU RESOURCES, INC.**  
**Carracas Unit 22 B #7**

7-30-92 Pressure tested tubing to 3500 psi. Held for 5 min.  
(cont.) Released standing valve and pulled out of hole with  
sand line.  
Shut down for day.

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4 bbls. flush.

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Washed down with 200 SMF nitrogen and Halco suds to  
3780'.  
Circulated hole clean.  
Shut down nitrogen at 2500'.  
Well continued flowing at 300 psi through 3/16" choke for  
1 hr. (1073 mcf)  
Shut down for night.

NASSAU RESOURCES, INC.  
Carracas Unit-PC 22 B #7

- 8-4-92 Tried to kill tubing to reassemble well head and move packer.  
Could not kill well with produced water at 1800 psi.  
Pumped 250 bbls.  
Ordered 20% KCL water.  
Pumped 20 bbls. to 2000 psi.  
Did not kill well.  
Shut down for night.
- 8-5-92 Rigged up and set model W 2-1/2" tubing choke.  
Filled annulus with fluid and unseated packer.  
Reset at 3682' KB.  
Reassembled well head.  
Tubing choke would not release.  
Pumped 2000 psi on choke to help release tool.  
Did not work.
- 8-6-92 TTH with slick line and hydraulic jars.  
Released model W choke & TOH.  
Made 1 swab run. No water in hole.
- 8-12-92 Shut in well. Rigged up wireline truck and ran tandem electronic pressure gauges. Soft set gauges in seating nipple at 3673' KB for pressure build up test.
- 8-21-92 Ran overshot (3624') to pickup gauges. Sand on top of fishing neck. Could not retrieve.  
Turned on well for 4 point test using gauges in well (3673' KB).  
Flow points were:  

500 mcf	2-1/2 hours
750 mcf	2-1/2 hours
1000 mcf	2-1/2 hours
1250 mcf	2-1/2 hours

Well was left flowing.
- 8-25-92 Ran overshot to 3618'.  
Ran hydrostatic bailer to verify problem was sand.  
TOH. Bailer picked up 1 pint of sand.
- 8-28-92 Ran overshot to 3610'. Hit sand.  
Rigged up Halliburton nitrogen truck, C & J kill truck and Otis coiled tubing unit to clean tubing.  
Nitrogen truck broke down.  
Shut down for day.

**NASSAU RESOURCES, INC.**  
**Carracas Unit-PC 22 B #7**

8-29-92 Rigged up Otis coiled tubing truck, C & J kill truck and Halliburton nitrogen truck to well and circulated clean with foam to top of gauges.  
TOH with 800 psi on tubing.  
TIH with overshot and fished gauges.  
TIH with coiled tubing and cleaned to 3781'.  
Returned well to production.

\*\*\*

10-9-92 Set model W tubing plug.  
Changed master valve on wellhead. Retrieved plug.  
TIH with 1.920" mandrel on wireline.  
Tagged sand at 3729' KB.  
Returned well to production.

## **ENGINEERING REPORT**

Carracas Unit PC 22B #7  
Section 22, T32N, R04W  
Rio Arriba County, New Mexico

Carracas Unit PC 22B #7, located 1650 FNL and 1715' FEL of Section 22, Township 32 North, Range 4 West, was spudded on June 16, 1990. Total depth of 3830' was reached on June 21, 1990 and 5-1/2", 17 lb/ft casing was set. The Fruitland Coal was perforated at 3618' to 3632' with 4 shots per foot. The formation was fractured with 23,700 lbs 40/70 sand and 198,872 lbs 20/40 sand in 2095 barrels gelled water at 52 barrels per minute.

The Fruitland Coal was completed for an initial potential of 69 MCFD and 62 BWPD on July 20, 1990. The Fruitland Coal was first delivered at a rate of 70 MCFD on August 13, 1990.

The well produced a cumulative of 10,015 MCF through January 31, 1991 when it was shut-in due to poor economics caused by low production. A listing of monthly production is attached.

The Pictured Cliffs Formation was completed in August, 1992 by perforating the Pictured Cliffs at 3722' to 3738'. The zone was sand fractured with 60,300 lbs 20/40 sand in 789 bbl gelled water. Following cleanup of the frac, the well was produced for an initial potential of 1071 MCFD from the Pictured Cliffs formation on August 7, 1992.

The Pictured Cliffs formation is isolated from the Fruitland Coal formation by a packer set at 3682' and tubing. The Fruitland Coal formation is shut-in. Pressure is being monitored in both formations to verify isolation.

Cumulative production from the Pictured Cliffs formation is 138,166 MCF through November 30, 1992. November, 1992 production was 35,409 MCF for a daily average of 1180 MCF. November, 1992 sales were 35,391 MCF. Monthly production is as follows: August = 18,575 MCF, September = 39,571 MCF, October = 44,611 MCF and November = 35,409 MCF.

## **ECONOMICS**

Based on November, 1992 sales of 35,391 MCF, a wellhead price for gas of \$1.820 per MCF and operating expenses for this well of \$4219, 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 PC 22B #7

SW NE Section 22, T32N R04W

Rio Arriba County, New Mexico

Well Costs: (based on actual costs) \$200,000 (recompletion cost)

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

**Monthly Operating Cost:**

1992 average = \$6000 per month \*

1993 est = \$3685 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:**

1992 average = \$1.339 per MCF \*

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

Date of First Production: August 7, 1992

Initial Production Rate: 1071 MCFD

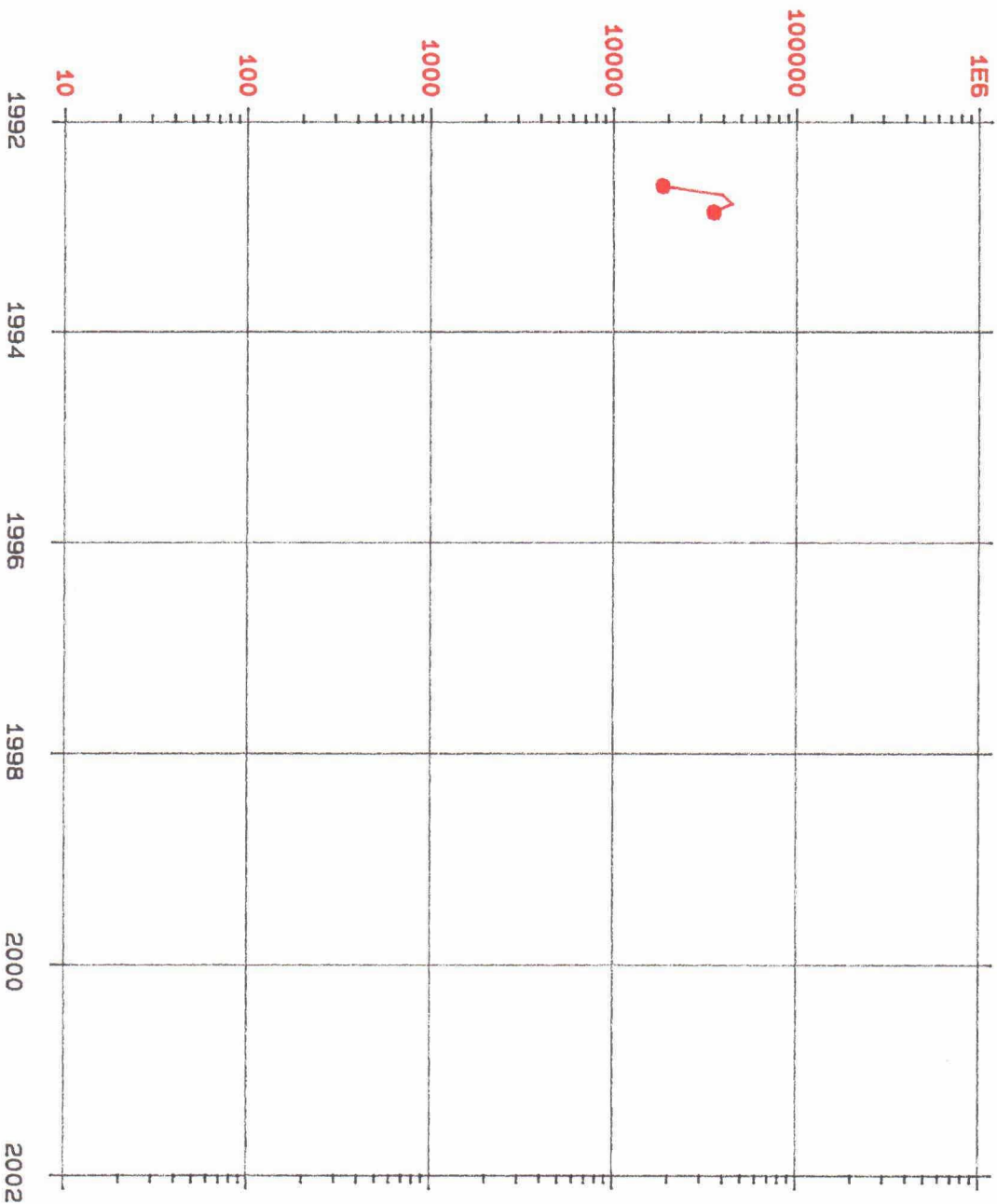
Calculated Economic Reserves: 138,166 MCF Cumulative + 813,282 MCF remaining

NASSAU RESOURCES, INC.  
Multiphase Curve Analysis  
Rate vs Time  
(c) 1991, 1989 Dwight, A Softsearch Co.

CARRACAS UNIT PC 22B-7  
G 22 T32N R04W PICTURED CLIFFS  
RIO ARriba COUNTY, NM

12/23/1992  
Project:  
CCU PC 22B-7

BOPM/MCFM/BWPM



Production Curves

GAS: • GAS DATA  
0 History 8/92 - 11/92

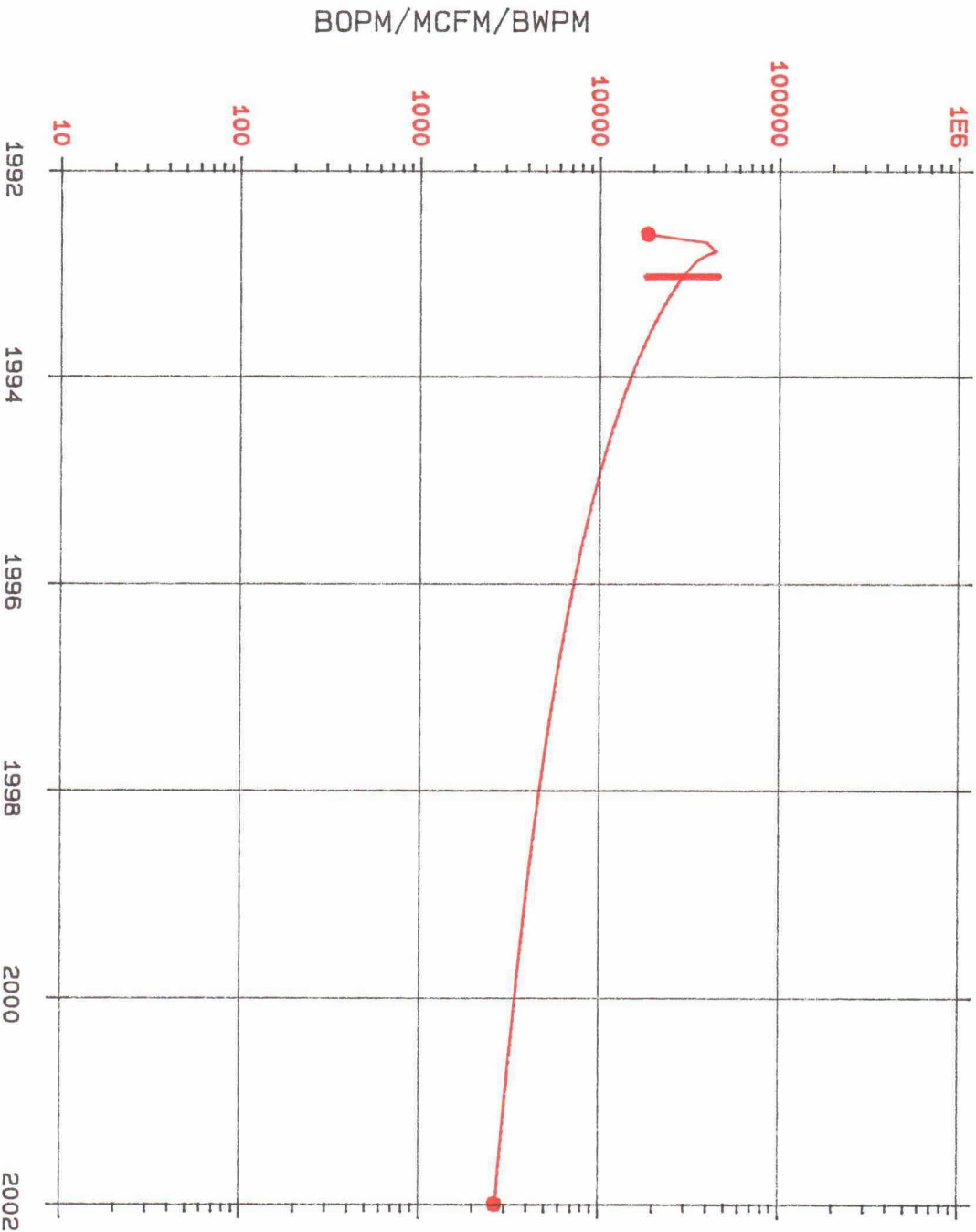
**NASSAU RESOURCES, INC.**  
 Multiphase Curve Analysis  
 Rate vs Time  
 (c) 1994, 1989 Dwight, A Software Co.

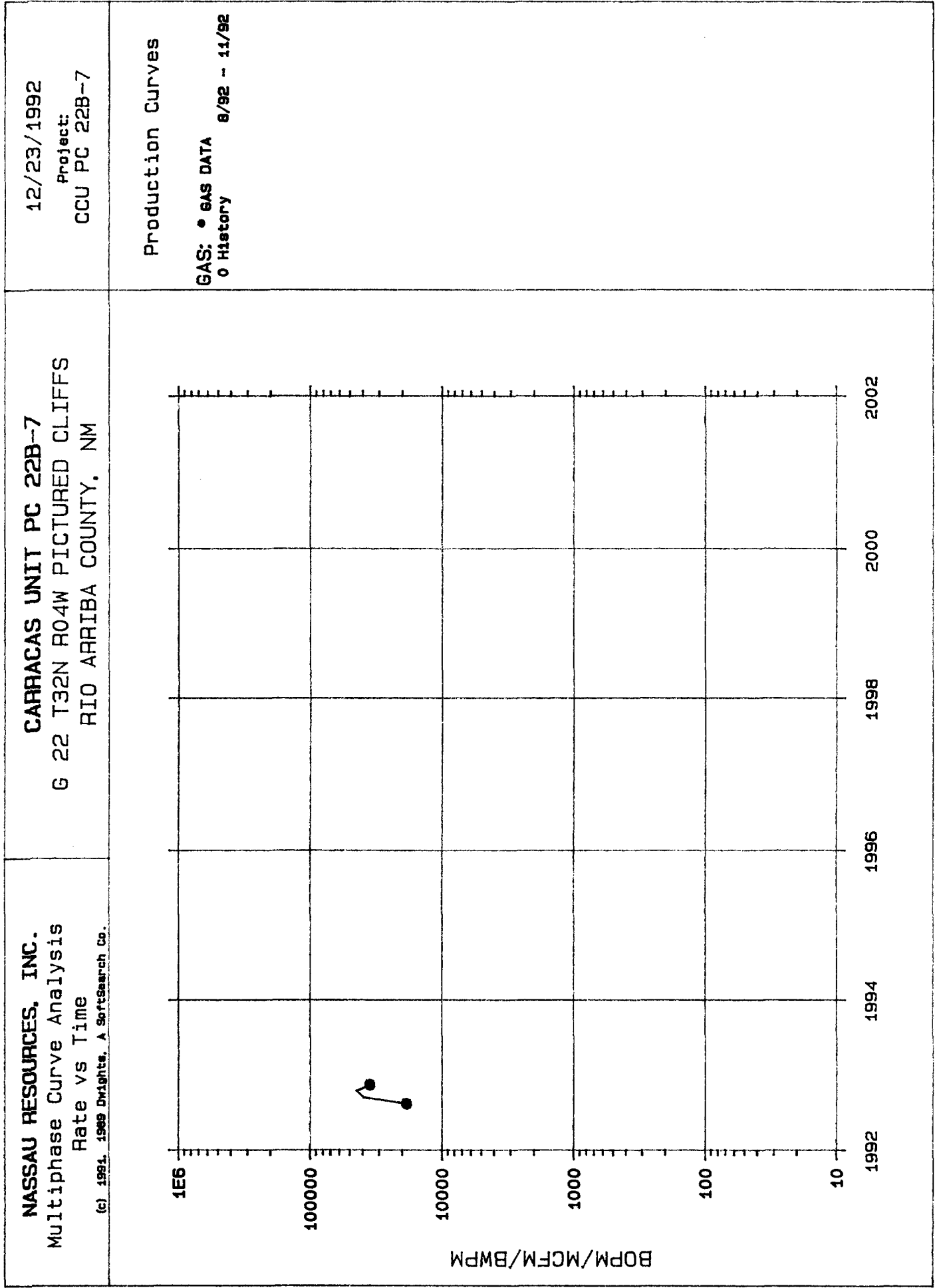
**CARRACAS UNIT PC 22B-7**  
 G 22 T32N R04W PICTURED CLIFFS  
 RIO ARRIBA COUNTY, NM

12/23/1992  
 Project:  
 CCU PC 22B-7

Production Curves

GAS: • GAS DATA  
 0 History 8/92 - 11/92  
 1 Hyperbolic 1/93 - 1/68  
 G1 : 30000.000 MCF/M  
 D1 : 50.000 %  
 n : 0.900  
 Qe : 285.585 MCF/M  
 De : 1.439 %  
 Np : 1392.104 MMCF





# NASSAU RESOURCES, INC.

Multiphase Curve Analysis

Rate vs Time

(c) 1991, 1999 Dwight, A Software Co.

## CARRACAS UNIT PC 22B-7

G 22 T32N R04W PICTURED CLIFFS

RIO ARRIBA COUNTY, NM

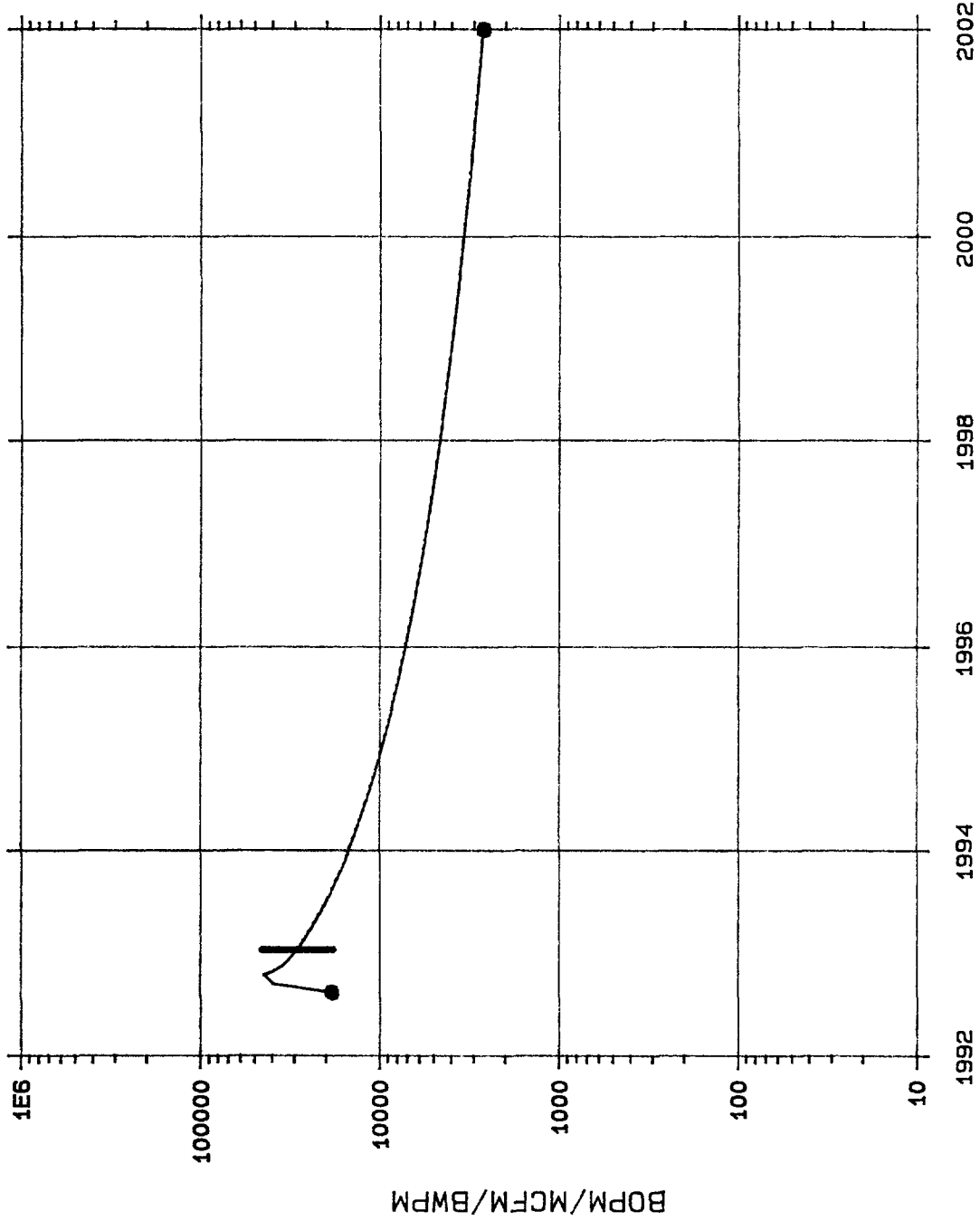
12/23/1992

Project:

CCU PC 22B-7

### Production Curves

GAS: • GAS DATA  
 0 History 8/92 - 11/92  
 1 Hyperbolic 1/93 - 1/98  
 Q1 : 30000.000 MCF/M  
 D1 : 50.000 %  
 n : 0.900  
 Qa : 285.586 MCF/M  
 Da : 1.439 %  
 Np : 1392.104 MMCF



OPERATOR: NASSAU RESOURCES, INC.

CCU PC 22B-7

DW LOC: G 22 32N 04W

LSE WELLNO: CARRACAS UNIT 22B-7

FORMATION: PICTURED CLIFFS

FIELD: UNDESIGNATED PICTURED CLIFFS

BFIT 20 COLUMN REPORT

RSVR CLASS: PROVED PRODUCING

COUNTY: RIO ARriba

INDIVIDUAL WELL ANALYSIS

STATE: NM

Report Date: JAN 1993

Discount Date: JAN 1993

Evaluation Date: JAN 1993

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

CARRACAS UNIT PICTURED CLIFFS  
PARTICIPATING AREA APPLICATION

\*----- 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 9 years 4 months  
PAYOUT TERM 1 years 0 months  
ROI - DISCOUNTED 218.22 %  
ROI - UNDISCOUNTED 257.13 %  
INTERP. IRR 94.88 %

END OF PERIOD (MO/YR)	GROSS PRODUCTION		NET PRODUCTION		EFFECTIVE PRICES		NET REVENUE			
	OIL & CND --(MBBL)-----	GAS & CGS (MMCF)--	OIL & CND --(MBBL)-----	GAS & CGS (MMCF)--	OIL & CND --(\$/BBL)----	GAS & CGS (\$/MCF)--	OIL & CND ----(M\$)-----	GAS & CGS (M\$)-----	OTHER (M\$)-----	TOTAL (M\$)-----
PRIOR		138.166								
12/93	0.000	250.454	0.000	200.363	N/A	1.53	0.000	305.871	0.000	305.871
12/94	0.000	144.760	0.000	115.808	N/A	1.59	0.000	183.891	0.000	183.891
12/95	0.000	100.807	0.000	80.645	N/A	1.65	0.000	132.942	0.000	132.942
12/96	0.000	76.833	0.000	61.467	N/A	1.71	0.000	105.035	0.000	105.035
12/97	0.000	61.803	0.000	49.442	N/A	1.77	0.000	87.464	0.000	87.464
12/98	0.000	51.530	0.000	41.224	N/A	1.83	0.000	75.406	0.000	75.406
12/99	0.000	44.083	0.000	35.267	N/A	1.89	0.000	66.628	0.000	66.628
12/00	0.000	38.447	0.000	30.758	N/A	1.95	0.000	59.958	0.000	59.958
12/01	0.000	34.040	0.000	27.232	N/A	2.01	0.000	54.721	0.000	54.721
12/02	0.000	10.525	0.000	8.420	N/A	2.05	0.000	17.261	0.000	17.261
SUB TOTAL	0.000	813.282	0.000	650.626			0.000	1089.177	0.000	1089.177
REMAINDER	0.000	0.000	0.000	0.000			0.000	0.000	0.000	0.000
TOTAL	0.000	813.282	0.000	650.626			0.000	1089.177	0.000	1089.177
ULTIMATE		951.448								

END OF PERIOD (MO/YR)	NET EXPENSES	NET PROD. TAXES	NET W.P.T.	TOTAL EXP+TAXES	NET CASH OPER. INC.	NET INVESTMENT	NET RESALE	NET OPERATING INCOME BFIT		
	---(M\$)---	---(M\$)---	---(M\$)---	---(M\$)---	---(M\$)---	---(M\$)---	---(M\$)---	UNDISC ----(M\$)-----	DISC @ 10.00% (M\$)-----	CUM DISC (M\$)-----
12/93	44.234	45.475	0.000	89.709	216.162	200.000	0.000	16.162	7.832	7.832
12/94	42.503	26.589	0.000	69.092	114.799	0.000	0.000	114.799	98.922	106.754
12/95	42.624	18.726	0.000	61.350	71.592	0.000	0.000	71.592	55.803	162.557
12/96	43.345	14.432	0.000	57.777	47.258	0.000	0.000	47.258	33.336	195.893
12/97	44.334	11.737	0.000	56.071	31.394	0.000	0.000	31.394	20.049	215.942
12/98	45.466	9.892	0.000	55.358	20.048	0.000	0.000	20.048	11.596	227.538
12/99	46.682	8.554	0.000	55.236	11.392	0.000	0.000	11.392	5.974	233.512
12/00	47.953	7.540	0.000	55.493	4.465	0.000	0.000	4.465	2.132	235.644
12/01	49.261	6.746	0.000	56.007	-1.286	0.000	0.000	-1.286	-0.531	235.113
12/02	16.716	2.100	0.000	18.816	-1.555	0.000	0.000	-1.555	-0.621	234.492
SUB TOTAL	423.118	151.791	0.000	574.909	514.269	200.000	0.000	314.269	234.492	
REMAINDER	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	
TOTAL	423.118	151.791	0.000	574.909	514.269	200.000	0.000	314.269	234.492	

\*----- PRESENT WORTH PROFILE -----\*

1 - 5.00 %	271.134 M\$	3 - 15.00 %	203.137 M\$	5 - 30.00 %	132.174 M\$	7 - 70.00 %	32.0
2 - 10.00 %	234.493 M\$	4 - 20.00 %	176.114 M\$	6 - 50.00 %	71.403 M\$		

OPERATOR: NASSAU RESOURCES, INC.

CCU PC 22B-7

DW LOC: G 22 32N 04W

LSE WELLNO: CARRACAS UNIT 22B-7

FORMATION: PICTURED CLIFFS

FIELD: UNDESIGNATED PICTURED CLIFFS

INPUT DATA SUMMARY

RSVR CLASS: PROVED PRODUCING

COUNTY: RIO ARriba

INDIVIDUAL WELL ANALYSIS

STATE: NM

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

\*----- CALCULATION PARAMETERS -----\*

\*----- CALCULATION PARAMETERS -----\*

CARRACAS UNIT PICTURED CLIFFS  
PARTICIPATING AREA APPLICATION

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: 200000.000 \$

TYPE OF INTEREST: OUTSIDE EVAL INTEREST  
OUTSIDE WORKING INTEREST: 100.000000 %  
NET REVENUE INTEREST: 80.031250 %  
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), 138.166 MMCF, 01/93 STANDARD  
1, HYP (4), 30000.000 MCF/M (2), 285.238 MCF/M (2), EXP 0.90, DEC 50.000, CUM PROD (2), 2000.000, MMCF (2)

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), 3000.00 \$/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,  
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

TANG (2), GROSS (1)

1, SCHED (1), 25000 \$, NO ESCAL, NO LIMIT , DATE (1), 1/93 ,  
NO RESALE (3), , ACRS (5), , LIFE 5-Y, NO

INTANG (3), GROSS (1)

1, SCHED (1), 175000 \$, NO ESCAL, NO LIMIT , DATE (1), 1/93

11. LOANS SCHEDULING

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

12. STREAM ADJUSTMENTS SCHEDULING

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

HISTORIC DATA LISTING  
CCU PC 22B-7

GAS

STANDARD

TIME DEC  
SEG TYPE

END  
CONDITION

-----

-----

0 HST 138.166 MMCF

01/93

HISTORIC DATA: MCF

PRIOR PRODUCTION:

0.000 MMCF

8/ 1/92 - 8/31/92 18575.000

9/ 1/92 - 9/30/92 39571.000

10/ 1/92 - 10/31/92 44611.000

11/ 1/92 - 11/30/92 35409.000

1 HYP 30000.000 MCF/M 285.238 MCF/M 0.90 50.000 2 2000.000 MMCF CUM

# 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

'93 MAR 1 AM 9 24

February 26, 1993

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: 1993 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 1993 Plan of Development (POD).

## I. 1992 History

Two Pictured Cliffs producing wells were located within the unit by year-end. The first well, the Carracas Unit 22 B #7, was abandoned as to the Fruitland Coal and recompleted in the Pictured Cliffs formation from 3722' to 3738'. The initial production rate was 1071 MCFD. The second well, the Carracas Unit (PC) 26 B #13, was new drilling in the SW/4 of section 26-32N-4W. This well was drilled at a surface location 1123' FSL and 790' FWL to a total depth of 4282' MD at 1027' FSL and 1036' FWL. The Carracas (PC) 26 B #13 had an initial production rate of 400 MCFD.

Three wells included in the Second Amendment to the 1992 Plan of Development were not drilled due to rig unavailability during the time frame allowed by the Forest Service for drilling. These wells are: 1) Carracas Unit (PC) 23 B #13; 2) Carracas Unit (G/PC) 26 B #3; and 3) Carracas Unit (PC) 36 B #11. These wells are included in the drilling plan for 1993.

The Carracas Unit (PC) 22 B #7 is the supporting well for the Initial Participating Area for the Pictured Cliffs formation. This

participating area was approved effective August 6, 1992 and is comprised of the NE/4 of section 22-32N-4W.

## II. Plans for 1993

A. **New wells.** New drilling plans include 21 wells with four formation objectives.

### 1. **Fruitland drilling.**

- a. Carracas 33 B #16, SE/4SE/4 of section 33-32N-4W
- b. Carracas 32 B #15, SW/4SE/4 of section 32-32N-4W
- c. Carracas 36 B #03, NE/4NW/4 of section 36-32N-4W
- d. Carracas 36 A #05, SW/4NW/4 of section 36-32N-5W

### 2. **Pictured Cliffs drilling.**

- a. Carracas PC 21 B#10, NW/4SE/4 of section 21-32N-4W
- b. Carracas PC 22 B#14, SE/4SW/4 of section 22-32N-4W
- c. Carracas PC 23 B#13, SW/4SW/4 of section 23-32N-4W
- d. Carracas PC 26 B#07, SW/4NE/4 of section 26-32N-4W
- e. Carracas PC 27 B#08, SE/4NE/4 of section 27-32N-4W
- f. Carracas PC 27 B#15, SW/4SE/4 of section 27-32N-4W
- g. Carracas PC 28 B#07, SW/4NE/4 of section 28-32N-4W
- h. Carracas PC 33 B#01, NE/4NE/4 of section 33-32N-4W
- i. Carracas PC 33 B#16, SE/4SE/4 of section 33-32N-4W
- j. Carracas PC 34 B#02, NW/4NE/4 of section 34-32N-4W
- k. Carracas PC 34 B#04, NW/4NW/4 of section 34-32N-4W
- l. Carracas PC 34 B#09, NE/4SE/4 of section 34-32N-4W
- m. Carracas PC 35 B#06, SE/4NW/4 of section 35-32N-4W
- n. Carracas PC 35 B#08, SE/4NE/4 of section 35-32N-4W
- o. Carracas PC 36 B#11, NE/4SW/4 of section 36-32N-4W

Some of the above wells will be drilled on existing Fruitland Coal well drill pads.

### 3. **Gallup drilling.**

- a. Carracas G 26 B#03, NE/4NW/4 of section 26-32N-4W (if the Gallup formation is uneconomic, well will be plugged back and completed in the Pictured Cliffs formation).

### 4. **Dakota drilling.**

- a. Carracas D 10 A#08, SE/4NE/4 of section 10-32N-5W (all prospective zones will be evaluated; if zones are uneconomic, well will be plugged back and completed in the Fruitland Coal formation).

B. **Recompletions.** Plans for 1993 include recompleting the following well from the Fruitland Coal formation to the Pictured

February 26, 1993  
1993 Plan of Development  
Page 3

**Cliffs formation.**

**1. Pictured Cliffs recompletion.**

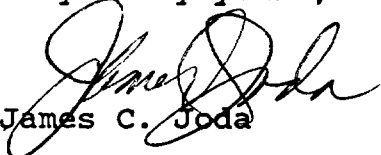
**a. Carracas PC 36 B#15, SW/4SE/4 of section 36-32N-4W**

It is our 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.

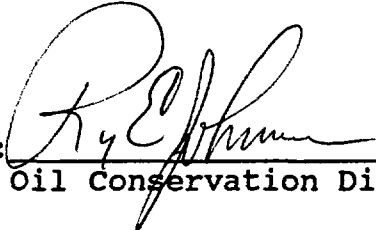
Very truly yours,

  
James C. Joda

attachment

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

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

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

DATE: 3-8-93

The foregoing approvals are for the 1993 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 Energy Corporation  
1717 St. James Place, Suite 380  
Houston, TX 77056

**McHUGH**

NEW MEXICO OIL CONVERSATION DIVISION  
RECEIVED  
'93 APR 22 AM 9 30

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

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

RE: Carracas Canyon Unit Area  
Rio Arriba County, New Mexico  
Agreement No. 14-080001-19596

Ladies/Gentlemen:

Please find enclosed Nassau Resources, Inc. submittal of proposals to form and revise participating areas of the Fruitland Coal formation within the Carracas Canyon federal unit as captioned above.

As stated in the proposals, the same has been sent to the Bureau of Land Management district office in Farmington for their approval.

If you should have any questions, please do not hesitate to call.

Very truly yours,

  
Sue Thompson

enc.

R 5 W

COLORADO

SCHEDULE III

R 4 W

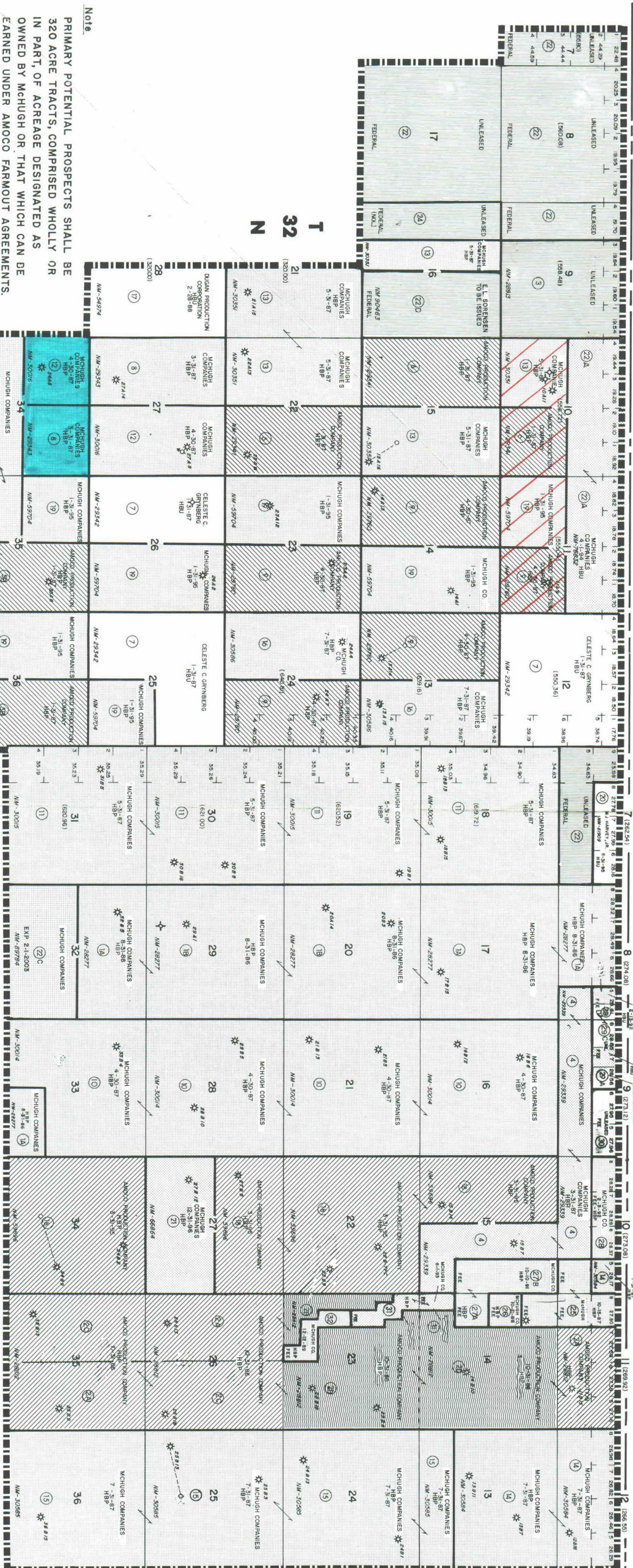
T 32

T 32

T 31

R 5 W

R 4 W



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.

NOTE: UNLESS OTHERWISE INDICATED, THE VARIOUS SECTIONS ON THIS PLAT CONTAIN 400.00 ACRES.



EXHIBIT "A"

CARRACAS CANYON UNIT AREA

RIO ARRIBA COUNTY, NEW MEXICO

NASSAU RESOURCES, INC.

DENVER, COLORADO

# McHUGH

April 19, 1993

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

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 "B"  
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 "B", to wit;

Township 32 North, Range 5 West, NMPM  
Section 10: S/2  
Section 11: S/2

ACRES INCLUDED IN INITIAL PARTICIPATING AREA:

640.00

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 "B".

April 19, 1993  
Bureau of Land Management  
Page 2

This proposed Initial Fruitland Coal Participating Area "B" 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 10A-#11  
Location: 1500' FWL - 1800' FSL, (NE/4SW/4 10-32N-05W)  
Completion Date: 9/15/89  
First Sales: 10/3/89  
Formation: Basin Fruitland Coal  
Producing Interval: 4024' - 4046' KB, Basin Fruitland Coal  
Initial Production: 10 MCF, 192 BBL Water, (24 hr.)

Well Name: Carracas Unit 11A-#9  
Location: 1675' FSL - 1190' FEL, (NE/4SE/4 11-32N-05W)  
Completion Date: 9/15/89  
First Sales: 10/3/89  
Formation: Basin Fruitland Coal  
Producing Interval: 4136' - 4162' KB, Basin Fruitland Coal  
Initial Production: 49 MCF, 240 BBL Water, (24 hrs.)

Applicant respectfully requests your approval of the hereinabove selection of lands to constitute the Initial Fruitland Coal Participating Area "B" to be effective September 15, 1989.

Sincerely,

NASSAU RESOURCES, INC.



James C. Joda

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