BELCO

M E M O R A N D U M

TEC. 85-04/01 January 2nd, 1985

TO : CHIEF RESERVOIR ENGINEER

FROM : JULIO MEGO C.

REF. : INITIAL PRESSURE AT LO6-17

Attached please find results of bottom hole pressure recorded at well of the reference, after shooting the first interval (6756'-6244') of Rio Bravo sands. The results are as follows:

Date	: November 19, 1984
Formation	: Rio Bravo
Interval	: 6756'-6244'MD
Wellhead pressure	: 0 psig
Pressure at bomb depth	: 2319 psig (6500'MD or 5163'VD)
Pressure at MPP	: 2319 psig (5163'VD)
Fluid level	: Liquid at surface
Average fluid gradient	: 0.45 psi/ft
Formation gradient	: 0.45 psi/ft

Initial pressure is stabilized, no pressure increased was observed during 63 minutes that the bomb remained in the well; however, reservoir pressure may be lower than here reported since the wellhead pressure was zero.

Pressure recorded referred at MPP is similar to initial pressure measured in well LO6-22 and within the expected range of the original pressure in the Rio Bravo formation in the area.

ENG. JULIO MEGO C.

JMC/rmr.

cc: Tech. Supt.
Prod. Supt.
Well File
GE-2201.89

LOBITOS OFFSHORE
LO6-17

STATIC GRADIENT

84-11-19

SUBSURFACE PRESSURE MEASUREMENTS

1. BASIC DATA — PAGE 01 OF 02

COMPANY: Belco Petroleum Corp. of Peru Inc.
ADDRESS: Negritos
FIELD and POOL: Lobitos
TYPE OF TEST: Static Gradient
PRODUCING INTERVAL (CF): 6244 - 6756 FT. PERF. [X] OH [ ]
ELEVATION (CF): ____ FT. (KB): ____ FT. (KB) to CF: ____ FT.
POOL DATUM: ____ FT. (subsea)
ELEMENT SERIAL NO.: 7510N RANGE: 3250 PSI.
CALIBRATION EQUATION: PC = 1634.4 D + (-3.31)

WELL NAME: Lobitos Offshore
LOCATION: LO6-17
STATUS: OIL [X] GAS [ ] OTHER SPECIFY: ____
DATE OF TEST: 84 11 19 TO [ ] [ ] [ ]
PRODUCING THROUGH: ____ IN. TUBING [ ] ____ IN. CASING [X]
MID-POINT OF PRODUCING (MPP) INTERVAL (CF): 6500 FT.
DATUM DEPTH OF WELL (FROM CF): ____ FT.
CLOCK RANGE: 3 h S [X] D [ ] # 2405 I.H.# 14356
DATE OF LAST CALIBRATION: 84 06 13

COMPANY: Belco Petroleum Corp. of Peru Inc.

2. STATIC TEST

PRESSURE (GAUGE): TUBING ____ PSI. GAUGE [ ] DWG [ ]
CASING ____ PSI. GAUGE [X] DWG [ ]
RUN DEPTH (FROM CF): 5164.72 (6500'MD) FT.
B.H. TEMP ____ °C SURFACE TEMP. ____ F
R.D. PRESSURE (GAUGE): 2319 PSI. GRADIENT: 0.4490 PSI/FT.

SHUT-IN DATE [ ] [ ] [ ] @ New Well h
DATE ON BOTTOM 84 11 19 @ 12:24 h
DATE OFF BOTTOM 84 11 19 @ 13:27 PSI.
MPP PRESSURE (GAUGE): 2319 PSI.
DATUM PRESSURE (GAUGE): ____ PSI.

3. ACOUSTIC WELL SOUNDER TEST

DEPTH OF TUBING ____ FT.
• AVERAGE TUBING JOINT LENGTH ____ FT.
NO. OF JOINTS TO LIQUID ____
LENGTH OF GAS COLUMN ____ FT.
LENGTH OF LIQUID COLUMN ____ FT.
GAS GRAVITY ____ GAS GRADIENT ____ PSI/FT.
OIL GRAVITY ____ OIL GRADIENT ____ PSI/FT.

SHUT-IN DATE [ ] [ ] [ ] @ ____ h
CURRENT WATER CUT ____ %
CASING PRESSURE (GAUGE) ____ PSI.
GAS COLUMN PRESSURE (GAUGE) ____ PSI.
LIQUID COLUMN PRESSURE (GAUGE) ____ PSI.
MPP PRESSURE (GAUGE) ____ PSI.
DATUM DEPTH PRESSURE (GAUGE) ____ PSI.

4. BUILD UP OR DRAWDOWN TEST (Attach Forms 0-12A)

RESERVOIR/WELL PARAMETERS: POROSITY ____ % WELL RADIUS ____ FT. THICKNESS ____ FT. WATER SATURATION ____ %
B.H. TEMP. ____ °F DATE AND DESCRIPTION OF LAST WELLBORE TREATMENT [ ] [ ] [ ] ____
CASING I.D. ____ IN. TUBING I.D. ____ IN. TUBING WEIGHT/MASS ____ LBS./FT.
COMPRESSIBILITY ____ μZ

OIL WELLS ONLY:
OIL VISCOSITY ____ CC
BUBBLE POINT PRESSURE (GAUGE) ____ PSI.
B_o = VOL. AT RES. COND. / VOL. AT ST. COND. ____

GAS WELLS ONLY:
GAS VISCOSITY ____ μ Z
Z at RESERVOIR CONDITIONS ____
RELATIVE DENSITY G ____

WELL PRODUCING RATE DURING [ ] PRIOR TO [ ] TEST OIL ____ BBL/D GAS ____ MCF/D WATER ____ BBL/D
TOTAL PRODUCTION - DURING [ ] PRIOR TO [ ] TEST OIL ____ BBLS. GAS ____ MCF WATER ____ BBL

WELL NAME & UNIQUE IDENTIFIER: Lobitos Offshore LO6-17

5. CHART READINGS AND CALCULATIONS

DATE YR	DATE MO	DATE DAY	DEPTH BELOW CF FT.	ACC. TIME h	TIME h	DEFLECTION IN	CALCULATED PRESSURE PSIG	CORRECTION DEVIATION PSI	CORRECTED PRESSURE PSIG	GRADIENT PSI/FT.
84	11	19	Surface	Surface	10:58	0.0000			0	0.0000
"	"	"	500	500.00	11:05	0.1300			211	0.4217
"	"	"	993.91	1000.00	11:12	0.2640			428	0.4400
"	"	"	1437.18	1500.00	11:19	0.3850			625	0.4442
"	"	"	1820.46	2000.00	11:26	0.4930			801	0.4594
"	"	"	2195.12	2500.00	11:33	0.5980			972	0.4569
"	"	"	2569.08	3000.00	11:40	0.7010			1140	0.4495
"	"	"	2937.77	3500.00	11:47	0.8040			1308	0.4560
"	"	"	3299.34	4000.00	11:54	0.9040			1472	0.4514
84	11	19	3656.76	4500.00	12:01	1.0015			1631	0.4468

REMARKS

T.V.D. Perf.: 4961.14' - 5369.29' MPP.: 5165.22 FT. T.V.D.

SURVEY COMPANY: Go Well Services TEST BY: G. Preciado COMPUTED BY: ____ CHECKED BY: ____

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY Belco Petroleum Corp.of Peru Inc. WELL NAME Lobitos Offshore

DATE OF TEST 84 (YR) 11 (MO) 19 (DAY) TO ___ (YR.) ___ (MO.) ___ (DAY) LOCATION LO6-17

CHART READINGS AND CALCULATIONS

DATE			DEPTH BELOW CFFT	ACC. TIME h	TIME h	DEFLECTION IN.	CALCULATED PRESSURE PSIG	CORRECTION DEVIATION PSI	CORRECTED PRESSURE PSIG	GRADIENT PSI/FT
YR	MO	DAY								
84	11	19	4017.87	5000.00	12:08	1.1000			1793	0.4471
			4386.92	5500.00	12:15	1.2030			1962	0.4575
			4769.02	6000.00	12:22	1.3110			2139	0.4631
			5164.72	6500.00	12:24	1.4210			2319	0.4554
84	11	19	5164.72	6500.00	13:27	1.4210			2319	
			MPP.: 5165.22 FT 0.5ft x 0.4554psi/ft = 0.22psi = 2319psig,