

LOBITOS OFFSHORE
LO6-3

TEMPERATURE GRADIENT
RUN # 1 85-04-07

TEMPERATURE GRADIENT
RUN # 2 85-04-07

WJL

BELCO PETROLEUM CORP. OF PERU
RESERVORIOS - LIMA
22 ABR 1985
RECIBIDO

BELCO PETROLEUM CORP. OF PERU
DPTO. TECNICO
22 ABR 1985
RECIBIDO

SUBSURFACE PRESSURE MEASUREMENTS

1 BASIC DATA

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COMPANY Belco Petroleum Corp. of Peru Inc.		WELL NAME Lobitos Offshore	
ADDRESS Negritos		LOCATION L06-3	
FIELD and POOL Lobitos		STATUS OIL ☐ GAS ☐ OTHER SPECIFY	
TYPE OF TEST Temperature Gradient		DATE OF TEST 85 04 07 TO 85 04 07	
PRODUCING INTERVAL (CF) FT PERF ☒ OH ☐		PRODUCING THROUGH IN TUBING ☐ IN CASING ☐	
ELEVATION (CF) FT. (KB)	FT. (KB) to CF FT.	MID-POINT OF PRODUCING (MPP) INTERVAL (CF) FT.	
POOL DATUM FT. (Subsea)		DATUM DEPTH OF WELL (FROM CF) FT.	
ELEMENT SERIAL NO KT . 8230	RANGE 60-160 °F	CLOCK RANGE 3 h S ☒ D ☐ # 2405 I.H. # 12637	
CALIBRATION EQUATION		DATE OF LAST CALIBRATION	

2. STATIC TEST

PRESSURE (GAUGE) TUBING	PSI GAUGE ☐ DWG ☐	SHUT-IN DATE	Not perforated
CASING	PSI GAUGE ☐ DWG ☐	DATE ON BOTTOM	85 04 07 @ 12:24
RUN DEPTH (FROM CF) (5180' MD)	FT.	DATE OFF BOTTOM	85 04 07 @ 15:29
B.H. TEMP	°C SURFACE TEMP	F	MPP PRESSURE (GAUGE) PSI
R.D. PRESSURE (GAUGE)	PSI GRADIENT	PSI/FT.	DATUM PRESSURE (GAUGE) PSI

3. ACOUSTIC WELL SOUNDER TEST

DEPTH OF TUBING	FT.	SHUT-IN DATE	h
AVERAGE TUBING JOINT LENGTH	FT.	CURRENT WATER CUT	%
NO. OF JOINTS TO LIQUID		CASING PRESSURE (GAUGE)	PSI
LENGTH OF GAS COLUMN	FT.	GAS COLUMN PRESSURE (GAUGE)	PSI
LENGTH OF LIQUID COLUMN	FT.	LIQUID COLUMN PRESSURE (GAUGE)	PSI
GAS GRAVITY	GAS GRADIENT	PSI/FT.	MPP PRESSURE (GAUGE) PSI
OIL GRAVITY	OIL GRADIENT	PSI/FT.	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
COMPRESSIBILITY	μZ	LBS./FT.		
OIL WELLS ONLY:		GAS WELLS ONLY:		
OIL VISCOSITY	CC	GAS VISCOSITY		
BUBBLE POINT PRESSURE (GAUGE)	PSI	Z at RESERVOIR CONDITIONS		
B ₀ =	VOL. AT RES. COND.	RELATIVE DENSITY G		
	VOL. AT ST. COND.			
WELL PRODUCING RATE DURING	☐ PRIOR TO ☐	TEST OIL	BBL/D GAS	MCF/D WATER
TOTAL PRODUCTION - DURING	☐ PRIOR TO ☐	TEST OIL	BBL/D GAS	MCF WATER

5. CHART READINGS AND CALCULATIONS

DATE			DEPTH BELOW CF FT.	ACC. TIME h	TIME h	DEFLECTION IN	CALCULATED PRESSURE PSIG	CORRECTION DEVIATION PSI	TEMPERAT °F	GRADIENT PSI/FT.
YR	MO	DAY								
85	04	07	Surface		13:55	0.4710			80.01	
			500		14:03	0.3900			76.81	
			1000		14:10	0.5070			81.28	
			1500		14:23	0.6500			87.20	
			2000		14:30	0.9290			101.44	
			2500		14:37	1.1480			112.43	
			3000		14:49	1.1600			113.02	
			3500		14:56	1.1420			112.13	
			4000		15:03	1.1630			113.17	
85	04	07	4500		15:15	1.1650			113.27	

REMARKS **5.5" J-55 # 17 Csg**
Cement job finished at 05:00 85-04-07
Shoe at 5224' Float collar at 5185'
Run # 01
 SURVEY COMPANY **Go Well Services** TEST BY **G. Preciado** COMPUTED BY CHECKED BY

Belco Petroleum Corp. of Peru Inc.

WELL NAME & UNIQUE IDENTIFIER

Lobitos Offshore L06-3

LOCATION L06-3

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46 1242

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LOBITOS OFFSHORE
LO6-3

DEPTH VERSUS TEMPERATURE

TEMPERATURE GRADIENT

RUN # 1 85-04-07

Surface

500

1000

1500

2000

2500

3000

3500

4000

4500

5000

5500

6000

Depth Ft.

Temperature °F

70

75

80

85

90

95

100

105

110

115

120

SUBSURFACE PRESSURE MEASUREMENTS

PAGE 01 OF 02

1. BASIC DATA

COMPANY **Belco Petroleum Corp. of Peru Inc.** WELL NAME **Lobitos Offshore**
 ADDRESS **Negritos** LOCATION **L06-3**
 FIELD and POOL **Lobitos** STATUS OIL ☐ GAS ☐ OTHER SPECIFY _____
 TYPE OF TEST **Temperature Gradient** DATE OF TEST **850407** TO **000000**
 PRODUCING INTERVAL (CF) _____ FT. PERF. ☒ OH ☐ PRODUCING THROUGH _____ IN. TUBING ☐ IN. CASING ☐
 ELEVATION (CF) _____ FT. (KB) _____ FT. (KB) to CF _____ FT. MID-POINT OF PRODUCING (MPP) INTERVAL (CF) _____ FT.
 POOL DATUM _____ FT. (Subsea) _____ DATUM DEPTH OF WELL (FROM CF) _____ FT.
 ELEMENT SERIAL NO **KT. 8230** RANGE **60-160 °F** CLOCK RANGE **3** h s ☒ d ☐ # **2405** I.H. # **12637**
 CALIBRATION EQUATION _____ DATE OF LAST CALIBRATION **000000**

2. STATIC TEST

PRESSURE (GAUGE) TUBING _____ PSI. GAUGE ☐ DWG ☐ SHUT-IN DATE **000000** @ **Not perforated** h
 CASING _____ PSI. GAUGE ☐ DWG ☐ DATE ON BOTTOM **850407** @ **16:41** h
 RUN DEPTH (FROM CF) **(2400' MD)** FT. DATE OFF BOTTOM **850407** @ **16:45** PSI.
 B.H. TEMP _____ °C SURFACE TEMP. _____ F MPP PRESSURE (GAUGE) _____ PSI.
 R.D. PRESSURE (GAUGE) _____ PSI. GRADIENT _____ PSI/FT. DATUM PRESSURE (GAUGE) _____ PSI.

3. ACOUSTIC WELL SOUNDER TEST

DEPTH OF TUBING _____ FT. SHUT-IN DATE **000000** @ _____ h
 AVERAGE TUBING JOINT LENGTH _____ FT. CURRENT WATER CUT _____ %
 NO. OF JOINTS TO LIQUID _____ CASING PRESSURE (GAUGE) _____ PSI.
 LENGTH OF GAS COLUMN _____ FT. GAS COLUMN PRESSURE (GAUGE) _____ PSI.
 LENGTH OF LIQUID COLUMN _____ FT. LIQUID COLUMN PRESSURE (GAUGE) _____ PSI.
 GAS GRAVITY _____ GAS GRADIENT _____ PSI/FT. MPP PRESSURE (GAUGE) _____ PSI.
 OIL GRAVITY _____ OIL GRADIENT _____ PSI/FT. 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 **000000**
 CASING I.D. _____ IN. TUBING I.D. _____ IN. TUBING WEIGHT/MASS _____ LBS./FT.
 COMPRESSIBILITY _____ μ z
 OIL WELLS ONLY: GAS WELLS ONLY:
 OIL VISCOSITY _____ CC GAS VISCOSITY _____ μ z
 BUBBLE POINT PRESSURE (GAUGE) _____ PSI. Z at RESERVOIR CONDITIONS _____
 B₀ = $\frac{\text{VOL. AT RES. COND.}}{\text{VOL. AT ST. COND.}}$ 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 _____ BBL/D GAS _____ MCF/D WATER _____ BBL/D

5. CHART READINGS AND CALCULATIONS

DATE			DEPTH BELOW CF FT.	ACC. TIME h	TIME h	DEFLECTION IN	CALCULATED PRESSURE PSIG	CORRECTION DEVIATION PSI	TEMPERAT °F	GRADIENT PSI/FT.
YR	MO	DAY								
85	04	07	Surface		15:52	0.4030			77.31	
			1200		16:00	0.4940			80.77	
			1400		16:03	0.5460			82.84	
			1500		16:10	0.6480			87.11	
			1600		16:14	0.7610			92.69	
			1700		16:18	0.9620			103.14	
			1800		16:25	0.9740			103.76	
			1900		16:29	1.0290			106.54	
			2000		16:33	0.9990			105.05	
85	04	07	2200		16:40	1.0970			109.90	

REMARKS **5.5" J-55 Csg.**
Cement job finished at 05:00 85-04-07
Shoe at 5224' Float collar at 5185'
Run # 02
 SURVEY COMPANY **Go Well Services** TEST BY **G. Preciado** COMPUTED BY _____ CHECKED BY _____

Belco Petroleum Corp. of Peru Inc.

Lobitos Offshore L06-3

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LOBITOS OFFSHORE
LO6-3

DEPTH VERSUS TEMPERATURE
TEMPERATURE GRADIENT

RUN # 2 85-04-07

Surface

200

400

600

800

1000

FT.

1200

h

1400

t

1600

p

1800

e

2000

2200

2400

2600

2800

T e m p e r a t u r e °F

70

75

80

85

90

95

100

105

110

115

120

