

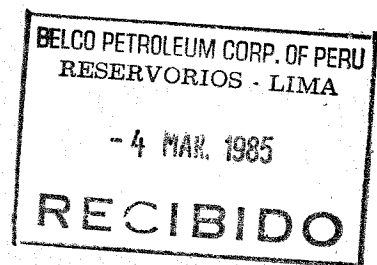
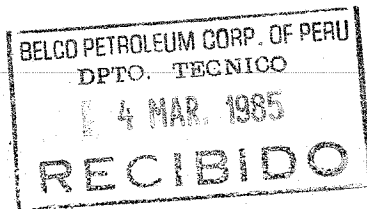
WELL FILE

LOBITOS OFFSHORE
LO6-5

TEMPERATURE GRADIENT
RUN # 01 85-02-11

TEMPERATURE GRADIENT
RUN # 02 85-02-11

Well File



SUBSURFACE PRESSURE MEASUREMENTS

PAGE 01 OF 02

1. BASIC DATA

COMPANY **Belco Petroleum Corp. of Peru Inc.** WELL NAME **Lobitos Offshore**
 ADDRESS **Negritos** LOCATION **LO6-5**
 FIELD and POOL **Lobitos** STATUS: OIL ☐ GAS ☐ OTHER SPECIFY _____
 TYPE OF TEST **Temperature Gradient** DATE OF TEST **85 02 11** TO **85 02 11**
 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 ☐ # **31881** I.H. # **14538**
 CALIBRATION EQUATION _____ DATE OF LAST CALIBRATION **85 02 11**

Belco Petroleum Corp. of Peru Inc.

2. STATIC TEST

PRESSURE (GAUGE): TUBING _____ PSI. GAUGE ☐ DWG ☐ SHUT-IN DATE **85 02 11** @ **Not Perforated** h
 CASING _____ PSI. GAUGE ☐ DWG ☐ DATE ON BOTTOM **85 02 11** @ **11:56** h
 RUN DEPTH (FROM CF) **(5616' MD)** FT. DATE OFF BOTTOM **85 02 11** @ **12:00** 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 **85 02 11** @ _____ 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 _____ 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 = 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 _____ BBL/D
 TOTAL PRODUCTION DURING ☐ PRIOR TO ☐ TEST OIL _____ BBL/D GAS _____ MCF WATER _____ BBL/D

Lobitos Offshore LO6-5

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	02	11	Surface		10:43	0.5540			83.16	
			500		10:50	0.4550			79.29	
			1000		10:57	0.5620			83.48	
			1500		11:04	0.6570			87.51	
			2000		11:12	0.9700			103.55	
			2500		11:19	1.0680			108.47	
			3000		11:26	1.1530			112.67	
			3500		11:33	1.1480			112.43	
			4000		11:40	1.1800			114.01	
85	02	11	4500		11:47	1.1800			114.01	

REMARKS **Shoe at 5658' F.Collar at 5616'**
Cement job finished at 02:00 85-02-11
Run # 01
 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 85 02 11 TO

LOCATION LO6-5

CHART READINGS AND CALCULATIONS

PAGE 02 of 02

[illegible]

LOBITOS OFFSHORE

L06-5

DEPTH VERSUS TEMPERATURE

TEMPERATURE GRADIENT

RUN # 01 85-02-11

Surface

500

1000

1500

2000

2500

3000

3500

4000

4500

5000

5500

6000

6500

FT.

h

p

p

p

p

p

p

p

p

p

p

p

p

p

p

p

p

p

p

T e m p e r a t u r e ° F

75

80

85

90

95

100

105

110

115

120

125

2000

2500

3000

3500

4000

4500

5000

5500

6000

6500

7000

7500

8000

8500

46 1242

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K-E

SUBSURFACE PRESSURE MEASUREMENTS

PAGE 01 OF 01

1. BASIC DATA

COMPANY Belco Petroleum Corp. of Peru Inc. WELL NAME Lobitos Offshore
 ADDRESS Negritos LOCATION L06-5
 FIELD AND POOL Lobitos STATUS: OIL ☐ GAS ☐ OTHER SPECIFY ☐
 TYPE OF TEST Temperature Gradient DATE OF TEST 85 02 11 TO
 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 31881 I.H.# 14538
 CALIBRATION EQUATION DATE OF LAST CALIBRATION

2. STATIC TEST

PRESSURE (GAUGE): TUBING PSI. GAUGE ☐ DWG ☐ SHUT-IN DATE @ Not Perforated h
 CASING PSI. GAUGE ☐ DWG ☐ DATE ON BOTTOM 85 02 11 @ 12:51 h
 RUN DEPTH (FROM CF) (2600' MD) FT. DATE OFF BOTTOM 85 02 11 @ 12:54 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 @ 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 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
 B_o = 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 BBL/D
 TOTAL PRODUCTION DURING ☐ PRIOR TO ☐ TEST OIL BBL/D GAS MCF 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	02	11	Surface		12:22	0.4010			77.24	
			1300		12:28	0.5860			88.44	
			1500		12:36	0.6620			87.73	
			1800		12:40	1.0930			109.70	
			2000		12:46	1.0050			105.35	
			2300		12:50	1.0520			107.67	
85	02	11	2600		12:54	1.0800			109.06	

REMARKS

Shoe at 5658' F.Collar at 5616'
 Cement job finished at 02:00 85-02-11
 Run # 02
 SURVEY COMPANY Go Well Services TEST BY G.Preciado COMPUTED BY CHECKED BY

Belco Petroleum Corp. of Peru Inc.

Lobitos Offshore L06-5

LOBITOS OFFSHORE
LO6-5

DEPTH VERSUS TEMPERATURE

TEMPERATURE GRADIENT
RUN # 02 85-02-11

Surface

1000

1100

1200

1300

1400

1500

1600

1700

1800

1900

2000

2100

2200

2300

2400

2500

2600

Depth

Temperature

70

80

90

100

110

120

130

140

150

160

170