

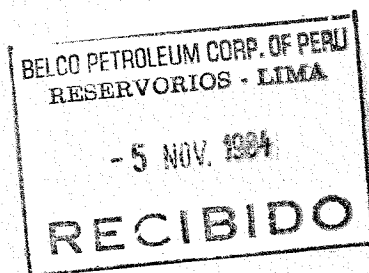
LOBITOS OFFSHORE
LO6-16

B.H.P.FLOWING GRADIENT
84-10-28

STATIC GRADIENT
84-10-28

Lima

Full



SUBSURFACE PRESSURE MEASUREMENTS

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1. BASIC DATA

COMPANY	Belco Petroleum Corp. of Peru Inc.	WELL NAME	Lobitos Offshore
ADDRESS	Negritos	LOCATION	LO6-16
FIELD and POOL	Lobitos	STATUS	OIL ☒ GAS ☐ OTHER SPECIFY
TYPE OF TEST	B.H.P. Flowing Gradient	DATE OF TEST	84 10 28 TO
PRODUCING INTERVAL (CF)	4980 - 6370	PRODUCING THROUGH	2 7/8 IN. TUBING ☒ IN. CASING ☐
ELEVATION (CF)	FT. (KB) FT. (KB) to CF FT.	MID-POINT OF PRODUCING (MPP) INTERVAL (CF)	5675 FT.
POOL DATUM	FT. (subsea)	DATUM DEPTH OF WELL (FROM CF)	FT.
ELEMENT SERIAL NO.	22534N	CLOCK RANGE	3 h S.D. 31881 I.H. 14520
CALIBRATION EQUATION	PC = 508.02 D + (-0.01)	DATE OF LAST CALIBRATION	84 04 06

2. STATIC TEST

PRESSURE (GAUGE): TUBING	120	PSI. GAUGE	☒ DWG ☐	SHUT-IN DATE	84 10 28 @ 19:50	h
CASING		PSI. GAUGE	☐ DWG ☐	DATE ON BOTTOM	84 10 28 @ 17:55	h
RUN DEPTH (FROM CF)	4314.35 (4932' MD)	FT.		DATE OFF BOTTOM	84 10 28 @ 20:05	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)
OIL GRAVITY	OIL GRADIENT	PSI/FT.	DATUM DEPTH PRESSURE (GAUGE)

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:	GAS WELLS ONLY:			
OIL VISCOSITY	CC	GAS VISCOSITY	μZ	
BUBBLE POINT PRESSURE (GAUGE)	PSI. Z at RESERVOIR CONDITIONS			
B _s =	VOL. AT RES. COND.	RELATIVE DENSITY G		
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	CORRECTED PRESSURE PSIG	GRADIENT PSI/FT.
YR	MO	DAY								
84	10	28	Surface		17:42	0.0000			0	
			Tool on bottom (4932') at 17:55				84-10-28			
			Opened gas lift gas valve at 18:03				84-10-28			
			Opened well to production at 18:04				84-10-28			
84	10	28	4314.35	4932.00	17:55	0.5770			293	
84	10	28	4314.35	4932.00	17:56	0.5780			294	

REMARKS

J.40 at 2685' - 4044' BK1 at 4901' S.N. at 4934' PKR at 4938 F.Collar at 6508'
T.V.DPerf.: 4353.18' - 5460.82' MPP.: 4907 FT. T.V.D

SURVEY COMPANY Go Well Services TEST BY O.García

COMPUTED BY CHECKED BY

Belco Petroleum Corp. of Peru Inc.

Lobitos Offshore LO6-16

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY Belco Petroleum Corp. of Peru

WELL NAME Lobitos Offshore

DATE OF TEST 84 10 28 TO
YR MO DAY YR MO DAY

LOCATION L06-16

CHART READINGS AND CALCULATIONS

PAGE 02 of 04

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	10	28	4314.35	4932.00	17:58	0.5790			294	
					18:00	0.5805			295	
					18:02	0.5820			296	
					18:03	0.5830			296	
					18:04	0.5150			262	
					18:05	0.5180			263	
					18:06	0.5250			267	
					18:07	0.5300			269	
					18:08	0.5350			272	
					18:09	0.5400			274	
84	10	28	4314.35	4932.00	18:10	0.5430			276	
			Injection rate started at			18:00	84-10-28			
84	10	28	4314.35	4932.00	18:11	0.5890			299	
					18:12	0.5970			303	
					18:13	0.6030			306	
					18:14	0.6100			310	
84	10	28	4314.35	4942.00	18:15	0.6105			310	
			Injection rate stopped at			18:16	84-10-28			
84	10	28	4314.35	4032.00	18:16	0.6090			307	
					18:17	0.5800			295	
					18:18	0.5530			281	
					18:19	0.5350			272	
					18:20	0.5180			263	
					18:21	0.5060			257	
					18:22	0.5040			256	
					18:23	0.5040			256	
					18:24	0.5075			258	
					18:25	0.5130			261	
					18:26	0.5190			264	
					18:27	0.5280			268	
					18:28	0.5330			271	
					18:29	0.5400			274	
					18:30	0.5415			275	
					18:31	0.5425			276	
					18:32	0.5415			275	
					18:33	0.5390			274	
					18:34	0.5380			273	
					18:35	0.5350			272	
					18:36	0.5330			271	
					18:37	0.5310			270	
					18:38	0.5300			269	
					18:39	0.5310			270	
					18:40	0.5330			271	
84	10	28	4314.35	4932.00	18:41	0.5340			271	

SUBSURFACE PRESSURE MEASUREMENTS

COMPANY Belco Petroleum Corp. of Peru WELL NAME Lobitos Offshore

DATE OF TEST 84 10 28 TO
YR MO DAY YR MO DAY

LOCATION L06-16

CHART READINGS AND CALCULATIONS

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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	10	84								
			Injection rate started at			18:41	84-10-28			
84	10	28	4314.35	4932.00	18:42	0.5860			298	
					18:43	0.6290			320	
					18:44	0.6460			328	
					18:45	0.6615			336	
84	10	28	4314.35	4932.00	18:46	0.6695			340	
			Injection rate stopped at			18:46	84-10-28			
84	10	28	4314.35	4932.00	18:47	0.6650			338	
					18:48	0.6435			327	
					18:49	0.6140			312	
					18:51	0.5255			267	
					18:53	0.4800			244	
					18:55	0.4860			247	
					18:57	0.4990			254	
					18:59	0.5180			263	
					19:01	0.5350			272	
					19:03	0.5395			274	
					19:05	0.5400			274	
					19:07	0.5310			270	
					19:09	0.5245			267	
					19:10	0.5240			266	
84	10	28	4314.35	4932.00	19:11	0.5260			267	
			Injection rate started at			19:11	84-10-28			
84	10	28	4314.35	4932.00	19:12	0.5740			292	
					19:13	0.5990			304	
					19:14	0.6160			313	
					19:15	0.6250			317	
84	10	28	4314.35	4932.00	19:16	0.6300			320	
			Injection rate stopped at			18:16	84-10-28			
84	10	28	4314.35	4932.00	19:17	0.6225			316	
					19:18	0.6025			306	
					19:19	0.5780			294	
					19:20	0.5360			272	
					19:21	0.5155			262	
					19:22	0.4970			253	
					19:23	0.4920			250	
					19:24	0.4930			251	
					19:25	0.4965			252	
					19:26	0.5020			255	
84	10	28	4314.35	4932.00	19:27	0.5080			258	

Lobitos Offshore

WELL NAME

LOCATION LO6-16

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SUBSURFACE PRESSURE MEASUREMENTS

PAGE 01 OF 01

1. BASIC DATA

COMPANY	Belco Petroleum Corp. of Peru Inc.	WELL NAME	Lobitos Offshore
ADDRESS	Negritos	LOCATION	L06-16
FIELD and POOL	Lobitos	STATUS: OIL ☒ GAS ☐ OTHER SPECIFY	
TYPE OF TEST	Static Gradient	DATE OF TEST	84 10 28 TO 84 10 28
PRODUCING INTERVAL (CF)	4980 - 6370	PRODUCING THROUGH	2 7/8 IN. TUBING ☒ IN. CASING ☐
ELEVATION (CF)	FT. (KB) FT. (KB) to CF	MID-POINT OF PRODUCING (MPP) INTERVAL (CF)	5675
POOL DATUM	FT. (subsea)	DATUM DEPTH OF WELL (FROM CF)	
ELEMENT SERIAL NO.	22534N	RANGE	0 - 1000 PSI
CLOCK RANGE	3	h S ☐ D ☐	#31881 I.H. # 14520
CALIBRATION EQUATION	PC = 508.02 D + (-0.01)	DATE OF LAST CALIBRATION	84 04 06

2. STATIC TEST

PRESSURE (GAUGE): TUBING	120	PSI. GAUGE ☒ DWG ☐	SHUT-IN DATE	84 10 28 @ 19:50 = 0.35	h
CASING		PSI. GAUGE ☐ DWG ☐	DATE ON BOTTOM	84 10 28 @ 20:11	h
RUN DEPTH (FROM CF)	3562.05 (4000' MD)	FT.	DATE OFF BOTTOM	84 10 28 @ 10:28	PSI.
B.H. TEMP	°C SURFACE TEMP	F	MPP PRESSURE (GAUGE)	264	PSI.
R.D. PRESSURE (GAUGE)	264	PSI. GRADIENT	0.0741	PSI/FT.	PSI.

3. ACOUSTIC WELL SOUNDER TEST

DEPTH OF TUBING	FT.	SHUT-IN DATE	84 10 28 @	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	84 10 28		
CASING I.D.	IN. TUBING I.D.	IN. TUBING WEIGHT MASS		LBS./FT.
COMPRESSIBILITY	μZ			
OIL WELLS ONLY:		GAS WELLS ONLY:		
OIL VISCOSITY	CC	GAS VISCOSITY	μZ	
BUBBLE POINT PRESSURE (GAUGE)	PSI.	Z at RESERVOIR CONDITIONS		
B ₀ = VOL. AT RES. 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	WATER BBL

5. CHART READINGS AND CALCULATIONS

DATE			DEPTH BELOW CF FT.	ACC. TIME h	TIME h	DEFLECTION IN	CALCULATED PRESSURE PSIG	CORRECTION DEVIATION PSI	CORRECTED PRESSURE PSIG	GRADIENT PSI/FT.
YR	MO	DAY								
84	10	28	Surface	Surface	20:28	0.4912			250	0.0000
			999.41	1000.00	20:26	0.4995			254	0.0000
			1934.17	2000.00	20:21	0.5062			257	0.0000
			2758.52	3000.00	20:16	0.5120			260	0.0000
84	10	28	3562.05	4000.00	20:11	0.5200			264	0.0000

REMARKS MPP.: 4907 FT. 1344.95 ft x 0.0 psi/ft = 0.0 psi = 264 psig.
 Stops for Static Gradient run upwards.
 J.40 at 2685' - 4044' BK1 at 4901' S.N. at 4934' PKR. at 4938' F. Collar at 6508'
 T.V.D. Perf.: 4353.18' - 5460.82 MPP.: 4907' FT. T.V.D.
 SURVEY COMPANY Go Well Services TEST BY O. Garcia COMPUTED BY CHECKED BY

Belco Petroleum Corp. of Peru Inc.

Lobitos Offshore L06-16

WELL NAME & UNIQUE IDENTIFIER

