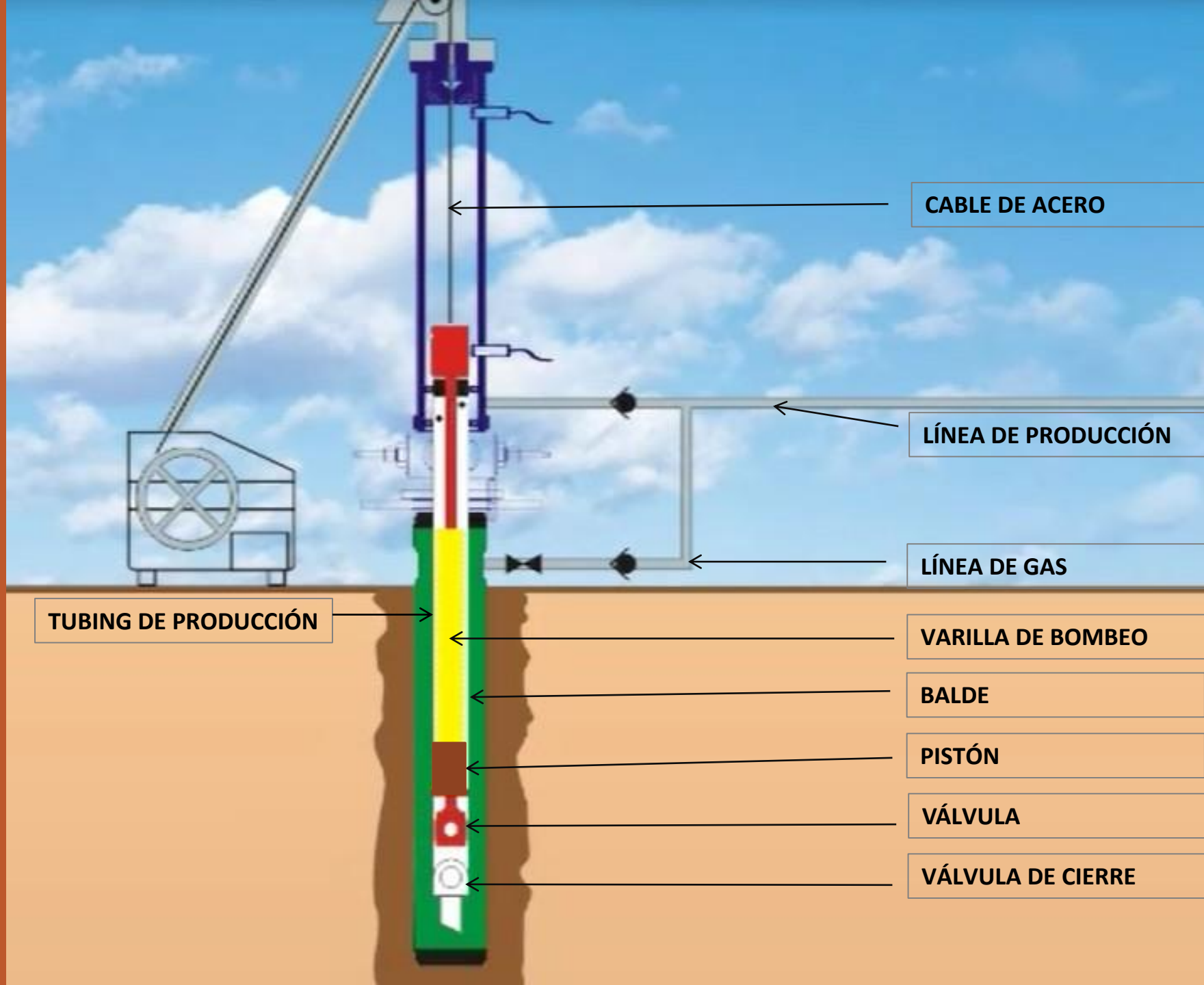


The Oil Bucket Wire Lift



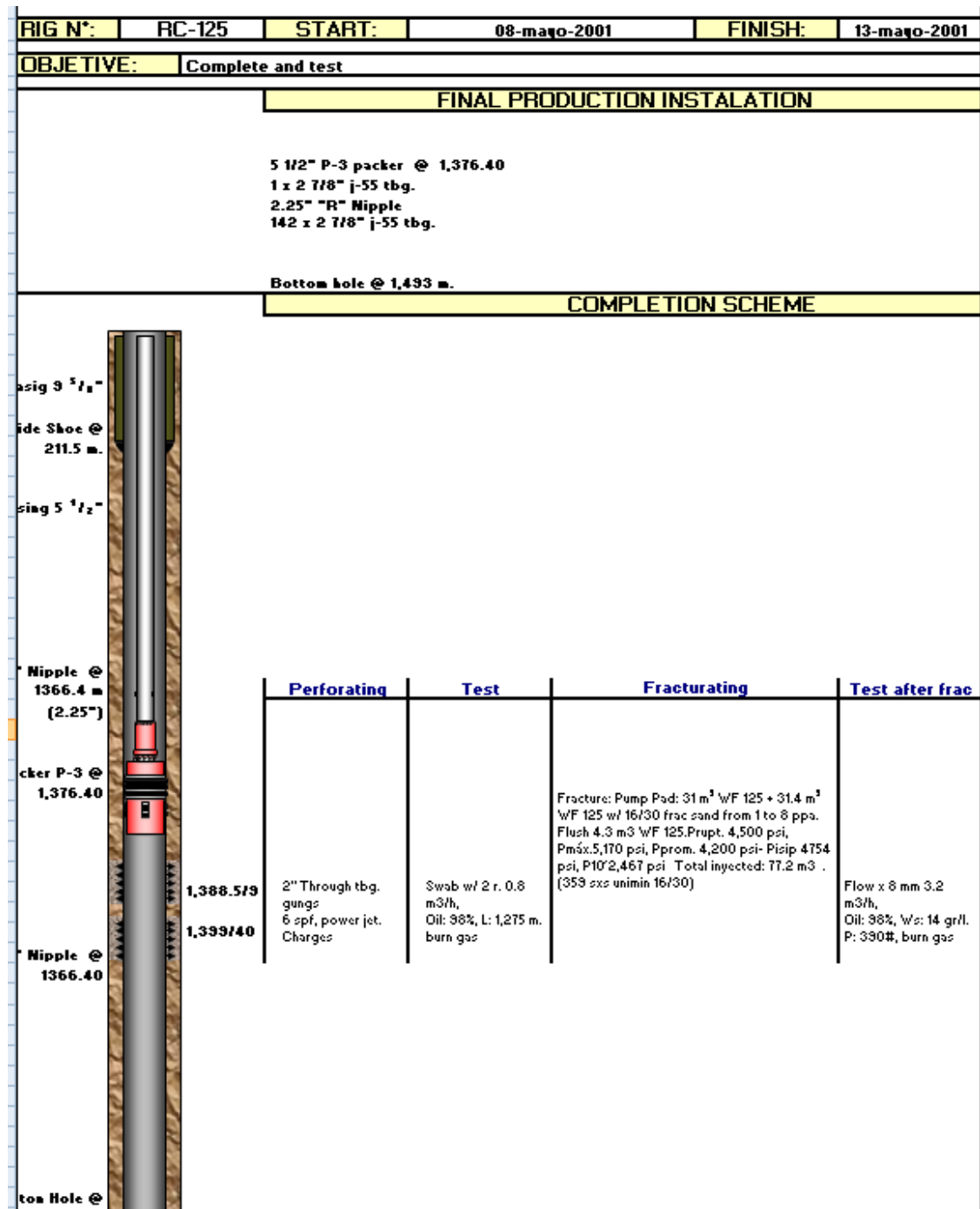
Artificial Lift



Well LNN 6 Neuquen Argentina



Artificial Lift



PRODUCTION 8 BPD –
0% WATER

Well LNN 6 Neuquen Argentina



Artificial Lift

Well TT1 Ibague Colombia



Artificial Lift

TT - 1A WELL									
MECHANICAL STATUS									
GLE: 834'		RKB: 9'		FIELD: TQARI - TQARI		CONTRACT: PHIL		LAST UPDATE: 15-Jul-15	
SURF. COORD: 338,358N - 314,758E				BOTTOM: 338,358N - 314,758E					
GENERAL INFORMATION									
SPED DATE: 1-mar-15		RIG RELEASE: 28-mar-15		HND TYPE: 1'					
HW INT. ZONE:		MAX. DEVIATION: 1'		AZIMUTH: 1'					
LOGS:		COST (USD):							
PERFORATED INTERVALS									
FORMATION NAME		TOP	BASE	TOP	BASE	TOP	BASE	TOP	BASE
DOIMA "H" SAND		2816	2828	2856	2862	2884	2892	2188	2115
DOIMA "L" SAND		2152	2158	2178	2188				
Observation		Seccord Interval 2128' - 2188'							
CASING DETAILS									
HYDRA TYPE	N.B	L.B	WT.	COND	BRK COND	COND	COND	JTS	ICYS
	[IN]	[IN]	[LBS/FT]					N.	[IN]
SURFACE	5 5/8	8,481	47	H-88	III	DUTT	H/M	1	42
PRODUCTION	5 1/2	4,832	47	H-88	III	DUTT	H/M	1	64
CEMENTING INFO		88 Sls Class "A" Cement and 228 Sls Class "G" Cement							
WORKOVER & WELLSERVICES									
DATE									
5-sep-00	Changing artificial lift system to Pump Cavity Progressive (PCP)								
21-nov-01	Changing 23 Broken rods (314")								
25-sep-05	ALS Failure because of twisted sucker rods.								
10-mar-09	Changing PCP down hole pump. Broken rubber. Changing sucker rod string (carrizón).								
10-may-12	Changing PCP down hole pump.								
4-may-14	Changing PCP down hole pump.								
6-jul-14	Changing PCP down hole pump.								
19-sep-14	Changing PCP down hole pump.								
21-dic-14	Change of ALS to Mechanical Pumping.								
27-feb-15	ALS Inspection.								
16-abr-15	Circulate Well								
TUBING STRING									
DESCRIPTION	O.D	I.D	WT	GRADE	JTS	LYCH.	FROM	TO	
	[IN]	[IN]	[LBS/FT]		N.	[FT]	[FT]	[FT]	
ROTARY TABLE ELEVATION						16	0	16	
TUBING HANGER		N/A			1	0,85	16	16,85	
Pup joint de 2-7/8" EUE		2,441	6,5		1	7,77	16,85	24,62	
TUBING JOINT 2 7/8" EUE N80 6,5#		2,441	6,5		62	1954	24,62	1978,6	
Seating Niple Cup Type (F)		-			1	1,27	1978,62	1979,9	
TUBING JOINT 2 7/8" EUE N80 6,5#		2,441	6,5		1	31,43	1979,99	2011,3	
Tubing Screen 12x12		-			1	23,85	2011,32	2035,2	
TUBING JOINT 2 7/8" EUE N80 6,5#		2,441	6,5		1	31,37	2035,17	2066,5	
BY PASS VALVE 2-7/8"		-			1	3,66	2066,54	2070,2	
Bull Plug 2-7/8" EUE		N/A			1	0,22	2070,2	2070,42	
SUCKER ROD STRING									
DESCRIPTION	O.D	I.D	WT	GRADE	JTS	LYCH.	FROM	TO	
	[IN]	[IN]	[LBS/FT]		N.	[FT]	[FT]	[FT]	
ROTARY TABLE DIFFERENCE						9	0,0	9,0	
POLISHED ROD	1,250				1	36	9,0	45,0	
SUBCOUPLING 1" x 7/8"	2,000				1	0,38	45,0	45,4	
PONY ROD D 7/8", 3 Ft, 4 Ft	0,875				1	4	45,4	49,4	
SUCKER ROD 7/8" N78 W/CPHNUEVA	0,875				77	1925	49,4	1974,4	
PONY ROD D 7/8", 2 Ft	0,875				1	2	1974,4	1976,4	
BOMBA MECANICA 25-150-RWAC-16-3	-				1	18	1976,4	1994,4	
ESPACIAMIENTO	-					0,5	1994,4	1994,9	
PUMPING DETAILS									
DATE	ALS	SUMERGENCIA (ft)	BOPD	-API	BS&W (%)	GAS (KSCFD)	GOR (SCF/STB)	RPM	

PRODUCCION 3 BPD –
50% WATER

Well TT1 Ibague Colombia



Artificial Lift

