

KSR KUEBLER Scope of Supply to Offshore Systems

Tag No.	Service Description	Duty	Flanges Pressure Rating	Design (Op.) Pressure [barg]	Design (Op.) Temperature [°C]	Fluid Upper	Fluid Lower	Density Upper Fluid [kg/m³]	Density Lower Fluid [kg/m³]	Chamber Material	C to C	Type / Remarks
ALBA NORTH - CHEVRON - KBR PRODUCTION SERVICES UKN / GRENLAND FRAMNÆS AS - 2005												
LG-25896A/ B/C/D/E/F/G/H	Level Gauge CFU A/B/C/D/E/F/G/H	Top Lvl	300# RF	17	-6 / 90		Produced Water		1010	6Mo	2675	8 Identical Units, MLG, Equal Tees Design
LG-25906 LT-25907	Level Gauge and Transmitter RCT	Top Lvl	300# RF	17	-6 / 90		Produced Water		1010	6Mo	1600	MLG + LT, Equal Tees Design, Hart® Communication
ALVHEIM FPSO TOPSIDES - MARATHON PETROLEUM COMPANY (NORWAY) - VETCO AIBEL AS - 2005												
20LI0121	Alvheim Inlet Separator	Top Lvl	300# RF	FV / 30	-20 / 90	HC Vapour	Crude Oil	17.8	841	SS 316L Painted	1200	MLG, Equal Tees Design
20LI0123	Alvheim Inlet Separator Interface	Top Lvl	300# RF	FV / 30	-20 / 90	Crude Oil	Produced Water	841	997	SS 316L Painted	1600	MLG, Equal Tees Design, Blue & Red Rollers
20LI0221	3rd Party Inlet Separator	Top Lvl	300# RF	FV / 30	-20 / 90	HC Vapour	Crude Oil	17.8	841	SS 316L Painted	1200	MLG, Equal Tees Design
20LI0223	3rd Party Inlet Separator Interface	Intf. Lvl	300# RF	FV / 30	-20 / 90	Crude Oil	Produced Water	841	997	SS 316L Painted	1600	MLG, Equal Tees Design, Blue & Red Rollers, Float Calibrated for Interface Level Measurement
20LI0321	2nd Stage Separator Oil	Top Lvl	150# RF	FV / 14	-10 / 110	HC Gas	Crude Oil	2.76	796	Titanium	1600	MLG, Equal Tees Design
20LI0323	2nd Stage Separator Interface	Intf. Lvl	150# RF	FV / 14	-10 / 110	Crude Oil	Produced Water	796	968	Titanium	1400	MLG, Equal Tees Design, Blue & Red Rollers, Float Calibrated for Interface Level Measurement
20LI0421	Oil/Water Separator Interface	Intf. Lvl	150# RF	FV / 14	-10 / 110	HC Liquid	Produced Water	796.7	968.3	Titanium	1800	MLG, Equal Tees Design, Blue & Red Rollers, Float Calibrated for Interface Level Measurement
23LI0103	1st Stage Recomp Train 100 Suction Scrubber	Top Lvl	150# RF	FV / 14	-20 / 60	HC Gas	Condensate & Water	2.1-2.3	807-849	SS 316L Painted	850	MLG, Equal Tees Design
23LI0203	1st Stage Recomp Train 200 Suction Scrubber	Top Lvl	150# RF	FV / 14	-20 / 60	HC Gas	Condensate & Water	2.1-2.3	807-849	SS 316L Painted	850	MLG, Equal Tees Design
23LI0303	2nd Stage Recomp Train 100 Suction Scrubber	Top Lvl	150# RF	FV / 14	-20 / 60	HC Gas	Condensate & Water	7.1-7.5	629-649	SS 316L Painted	910	MLG, Equal Tees Design
23LI0403	2nd Stage Recomp Train 200 Suction Scrubber	Top Lvl	150# RF	FV / 14	-20 / 60	HC Gas	Condensate & Water	7.1-7.5	629-649	SS 316L Painted	910	MLG, Equal Tees Design
24LI0111	Dehydration Inlet Scrubber	Top Lvl	600# RTJ	FV / 85	-46 / 65	HC Gas	HC Condensate & Water	68.3	490	SS 316L Painted	1250	MLG, Chamber OD 76.1 x 5 mm
24LI0156	Glycol Contactor	Top Lvl	600# RTJ	FV / 85	-46 / 65	HC Gas	HC Condensate & Glycol + Water	68.9	494.7-1117	SS 316L Painted	2200	MLG, Chamber OD 76.1 x 5 mm, float calibrated for SG 806 kg/m3
24LI0158	Glycol Contactor	Top Lvl	600# RTJ	FV / 85	-46 / 65	HC Gas	HC Condensate	68.9	494.7	SS 316L Painted	1140	MLG, Chamber OD 76.1 x 5 mm
24LG4017	Reboiler	Top Lvl	300# RF	FV / 14	-6 / 235	Vapour	TEG	0.88	980	6Mo	1300	MLG, Reducing Branch Tees Design, Delivered via KC Controls Ltd (UK)
24LG4025	Surge Drum	Top Lvl	300# RF	FV / 14	-6 / 235	Vapour	TEG	0.88	992	6Mo	2000	MLG, Reducing Branch Tees Design, Delivered via KC Controls Ltd (UK)
24LG4037	Glycol Flash Drum Glycol Level	Top Lvl Intf. Lvl	150# RF	FV / 14	-46 / 110	Vapour	Middle: HC Condens. Lower: TEG	5.2	Middle: 600 Lower: 1105	SS 316L	1350 550	Transparent GLG, 3 process connections, Delivered via KC Controls Ltd (UK)
24LG4040 24LT4040	Glycol Flash Drum HC Level Control	Top Lvl	150# RF	FV / 14	-46 / 100	Vapour	HC Condensate	5.2	600	SS 316L	1880	MLG+LT, Hart® Communication, Reducing Branch Tees Design, Delivered via KC Controls Ltd (UK)
24LG4055 24LT4055	Overheads KO Drum Control	Top Lvl	150# RF	FV / 14	-6 / 120	Vapour	Water	1.04	988	SS 316L	1100	MLG+LT, Hart® Communication, Reducing Branch Tees Design, Delivered via KC Controls Ltd (UK)
27LI0111	1st Stage Exp Comp Train 100 Suction Scrubber	Top Lvl	300# RF	FV / 42	-46 / 140	HC Gas	Condensate & Water	16.7-19.0	724-843	SS 316L Painted	900	MLG, Equal Tees Design
27LI0211	1st Stage Exp Comp Train 200 Suction Scrubber	Top Lvl	300# RF	FV / 42	-46 / 140	HC Gas	Condensate & Water	16.7-19.0	724-843	SS 316L Painted	900	MLG, Equal Tees Design
27LI0311	2nd Stage Exp Comp Train 100 Suction Scrubber	Top Lvl	600# RTJ	FV / 90.5	-46 / 140	HC Gas	HC Condensate & Glycol + Water	60.9-65.3	483-502	SS 316L Painted	900	MLG, Chamber OD 76.1 x 5 mm

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27LI0411	2nd Stage Exp Comp Train 200 Suction Scrubber	Top Lvl	600# RTJ	FV / 90.5	-46 / 140	HC Gas	HC Condensate & Glycol + Water	60.9-65.3	483-502	SS 316L Painted	900	MLG, Chamber OD 76.1 x 5 mm
41LI0193	Heating Medium Expansion Vessel	Top Lvl	150# RF	FV / 13	-6 / 190	Nitrogen	Fresh Water	12.07	908-1000	Titanium	4200	MLG, Equal Tees Design
43LI0131	Flare KO Drum (complete upper level)	Top Lvl	150# RF	FV / 13.5	-101 / 140	Hydrocarbon or water	Hydrocarbon or water	850-990	850-990	SS 316L Painted	3750	MLG, Equal Tees Design
43LIT0158	Flare KO Drum to Hazardous Open Drain	Top Lvl	150# RF	FV / 13.5	-101 / 140	HC Gas or Air or HC Liquid	Water or HC Liquid	0 to 850	1000	SS 316L Painted	1500	Dual Chamber MLG c/w Guided Wave Radar, Hart® Communication, Equal Tees Design
44LI0131	Produced Water Degassing Drum (Upper Fluid Level)	Top Lvl	150# RF	FV / 14	-6 / 110	Oil	Produced Water	797	968	SS 316L Painted	2750	MLG, Equal Tees Design
45LI0107	Fuel Gas Scrubber	Top Lvl	300# RF	FV / 46.9	-20 / 60	HC Gas	Condensate	41.6-42.2	526-546	SS 316L Painted	900	MLG, Equal Tees Design
46LI0102	Methanol Storage Tank	Top Lvl	150# RF	0.07	-6 / 50	Nitrogen	Methanol		797	SS 316L Painted	3470	MLG, Equal Tees Design
56LI0103	Haz. Open Drain Tank	Top Lvl	150# RF	0.07	-6 / 50	Nitrogen	Mixture of HC, prod. oil, water, seawater,...		640-1026	SS 316L Painted	2170	MLG, Equal Tees Design
56LT0109	Haz. Open Drain Tank	Intf. Lvl	150# RF	0.07	-6 / 50	Oil	Water	640	1026	SS 316Ti	2985	Top mounted LT, Hart® Communication, Centering Plate for Stilling Well
56LI0123	Non Haz. Open Drain Tank	Top Lvl	150# RF	0.07	-6 / 50	Nitrogen	Mixture of diesel, lub oil, water and prod. oil		850-1026	SS 316L Painted	1650	MLG, Equal Tees Design
56LT0129	Non Haz. Open Drain Tank	Intf. Lvl	150# RF	0.07	-6 / 50	Oil	Water	850	1026	SS 316Ti	2475	Top mounted LT, Hart® Communication, Centering Plate for Stilling Well
57LI0109	Closed Drain Tank	Top Lvl	150# RF	FV / 14	-30 / 100	HC gas	Mix. of HC, chemicals, water, methanol, TEG	1.2-1.5	632-995	SS 316L Painted	1100	MLG, Equal Tees Design

BALDER FPSO - ESSO NORGE AS - THOMASSEN COMPRESSION SYSTEMS B.V. - 1999

926-LG 062A 926-LT 094A	1st Stage Reinjection Compressor Scrubber A Liquid Level	Top Lvl	600# RF	37	80				724	SS 316L	980	MLG + LT, Hart® Communication, Heat Tracing + Insulation
926-LG 062B 926-LT 094B	1st Stage Reinjection Compressor Scrubber B Liquid Level	Top Lvl	600# RF	37	80				724	SS 316L	980	MLG + LT, Hart® Communication, Heat Tracing + Insulation
926-LG 065A 926-LT 100A	2nd Stage Reinjection Compressor Scrubber A Liquid Level	Top Lvl	1500# RF	70	56				555	SS 316L	752	MLG + LT, Hart® Communication, Heat Tracing + Insulation
926-LG 065A 926-LT 100A	2nd Stage Reinjection Compressor Scrubber B Liquid Level	Top Lvl	1500# RF	70	56				555	SS 316L	752	MLG + LT, Hart® Communication, Heat Tracing + Insulation

BANUWATI A (SOUTH EAST SUMATRA GAS PROJECT) - OFFSHORE OIL ENGINEERING CO. LTD. - PROCESS GROUP PTY. LTD. - 2005

BWA-LG-225	Contactora TEG Level	Top Lvl	600# RF	50.3	66	Natural Gas	Glycol	42	1110	SS 316Ti	914	MLG, Local Scale in inches
BWA-LG-223	Contactora Hydrocarbon Level	Top Lvl	600# RF	50.3	66	Natural Gas	Hydrocarbon	42	716	SS 316Ti	813	MLG, Local Scale in inches
BWA-LG-262	Flash Drum Hydrocarbon	Top Lvl	300# RF	10.3	93	Fuel Gas	Hydrocarbon	6	673	SS 316Ti	762	MLG, Local Scale in inches
BWA-LG-266	Flash Drum TEG Level	Top Lvl	300# RF	10.3	93	Fuel Gas	Glycol	6	1104	SS 316Ti	762	MLG, Local Scale in inches
BWA-LG-241	Reboiler	Top Lvl	300# RF	3.4	232	Natural Gas	Glycol	1	961	SS 316Ti	559	MLG, Local Scale in inches
BWA-LG-350	Still Overhead Separator	Top Lvl	150# RF	3.4	133	Natural Gas	Water	1	988	SS 316Ti	356	MLG, Local Scale in inches
BWA-LG-312	Surge Drum	Top Lvl	300# RF	3.4	133	Natural Gas	Glycol	1	1068	SS 316Ti	1372	MLG, Local Scale in inches
BWA-LG-314	Glycol Make-up Tank	Top Lvl	150# RF	3.4	66	Nitrogen	Glycol	1	1110	SS 316Ti	1219	MLG, Local Scale in inches

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BASSGAS PROJECT (OFFSHORE PRODUCTION PLATFORM) - ORIGIN ENERGY RESOURCES LIMITED - CLOUGH ENGINEERING LIMITED - 2003

LG-5141	Level Gauge on TEG Contactor C-5130 Dehydration Section	Top Lvl	900# RTJ	141 / FV	-46 / 80	Wet Gas	Rich TEG + Condensate	113.9 - 191.5	600 - 900 1105 - 1108	SS 316L	625	Bull's Eyes Transparent Glass Level Gauge with 3 Process Connections
LG-5243	Level Gauge on Stripping Gas Dryer C-5230	Top Lvl	900# RTJ	141 / FV	-46 / 80	Wet Gas	Rich TEG + Condensate	113.9 - 191.5	601 - 900 1105 - 1110	SS 316L	700	Bull's Eyes Transparent Glass Level Gauge with 3 Process Connections
LZT-5502	TEG Flash Drum Level Gauge and Transmitter	Top Lvl	150# RF	10	100	Hydrocarbon Gas	TEG Liquid	6.87	1087	SS 316L	800	MLG + LT, Hart® Communication, SS 316/316L dual certified
LZT-5531	TEG Reboiler Level Gauge and Transmitter	Top Lvl	150# RF	10	250	Hydrocarbon & Water Gas	TEG Liquid	0.95	964	SS 316L	600	MLG + LT, Hart® Communication, SS 316/316L dual certified
LZT-5560	TEG Surge Drum Level Gauge and Transmitter	Top Lvl	150# RF	10	250	Hydrocarbon & Water Gas	TEG Liquid	0.95	1066	SS 316L	1100	MLG + LT, Hart® Communication, SS 316/316L dual certified
LZT-5500	TEG Flash Drum Level Gauge and Transmitter	Top Lvl	150# RF	10	100	Hydrocarbon Gas	Hydrocarbon Liquid	6.87	1066	SS 316L	800	MLG + LT, Hart® Communication, SS 316/316L dual certified

BAYU UNDA GAS RECYCLE PROJECT - PHILLIPS PETROLEUM COMPANY AUSTRALIA PTY. LTD. - 2001

	Fluid Sealing System Pressurized Buffer Tank	Top Lvl	600# RF	42	200		Clean Diesel		800 - 850	SS 316L	350	10 Identical Units, MLG + LT, Hart® Communication (Customer: Flowserve B.V.)
	Fluid Sealing System Pressurized Buffer Tank	Top Lvl	600# RF	42	200		Therminol Oil 55		863 - 901	6Mo	350	8 Identical Units, MLG + LT, Hart® Communication (Customer: Flowserve B.V.)
	Fluid Sealing System Pressurized Buffer Tank	Top Lvl	1500# RTJ	140	200		Water (50%) Glycol (50%)		1000	SS 316L	600	4 Identical Units, MLG + LT, Hart® Communication (Customer: Flowserve B.V.)
11LT-3310	Rich Glycol Level Gauge and Transmitter	Top Lvl	150# RF	10 / FV	190	Hydrocarbon Vapor / Water Vapor	Rich Glycol	4	1013	6Mo	842	MLG + LT, Hart® Communication (Customer: KCC Process Abu Dhabi)
11LT-3312	Rich Glycol Level Gauge and Transmitter	Top Lvl	150# RF	10 / FV	190	Hydrocarbon Vapor / Water Vapor	Rich Glycol	4	1013	6Mo	842	MLG + LT, Hart® Communication (Customer: KCC Process Abu Dhabi)
11LT-3314	Rich Glycol Level Gauge and Transmitter	Top Lvl	150# RF	10 / FV	190	Hydrocarbon Vapor / Water Vapor	Rich Glycol	4.2	1013	SS 316L	582	MLG + LT, Hart® Communication (Customer: KCC Process Abu Dhabi)
11LT-3315	Rich Glycol Level Gauge and Transmitter	Top Lvl	150# RF	10 / FV	190	Hydrocarbon Vapor / Water Vapor	Rich Glycol	4.2	997	SS 316L	582	MLG + LT, Hart® Communication (Customer: KCC Process Abu Dhabi)
11LT-3321	Rich Glycol Level Gauge and Transmitter	Top Lvl	150# RF	3.5 / FV	230	Hydrocarbon Vapor / Water Vapor	Rich Glycol	3	983	Hastel. C	762	MLG + LT, Hart® Communication (Customer: KCC Process Abu Dhabi)
11LT-3322	Rich Glycol Level Gauge and Transmitter	Top Lvl	150# RF	3.5 / FV	230	Hydrocarbon Vapor / Water Vapor	Rich Glycol	3	983	Hastel. C	762	MLG + LT, Hart® Communication (Customer: KCC Process Abu Dhabi)
11LT-3324 A/B/C	Lean Glycol Level Gauge and Transmitter	Top Lvl	150# RF	3.5 / FV	100	Hydrocarbon Vapor	Lean Glycol	3	1087	6Mo	1602	3 Identical Units, MLG + LT, Hart® Communication (Customer: KCC Process Abu Dhabi)
11LT-3351 A/B/C	Solvent Level Gauge and Transmitter	Top Lvl	150# RF	3.5 / FV	100	Hydrocarbon Vapor	Solvent	2.1	818	SS 316L	1082	3 Identical Units, MLG + LT, Hart® Communication (Customer: KCC Process Abu Dhabi)
11LT-3353 A/B/C	Water Level Gauge and Transmitter	Top Lvl	150# RF	3.5 / FV	100	Hydrocarbon Vapor	Water	2.1	988.4	SS 316L	975	3 Identical Units, MLG + LT, Hart® Communication (Customer: KCC Process Abu Dhabi)
	Lub Oil Storage Vessel	Top Lvl	150# RF	12	15 / 100		Oil (ISO VG 32)		850 @ 60°C	SS 316L	900	3 Identical Units, MLG + LT, Hart® Communication (Customer: Rolls Royce Power Engineering PLC)
	Fire Protection System Reservoir	Top Lvl	150# RF	40	120				870	SS 316L	1200	3 Identical Units, MLG + LT, Hart® Communication (Customer: Ginge Kerr Ltd.)
	Hydraulic Oil Storage Vessel	Top Lvl	150# RF	2	80		Hydraulic Oil		860	SS 316L	500	2 Identical Units, MLG + LT, Hart® Communication (Customer: Whitton Technology Ltd.)

BERYL ALPHA PLATFORM - MOBIL NORTH SEA LIMITED - SIEMENS AS - 2005

LG-153.3/4/5/6	Magnetic Level Gauge	Top Lvl	150# RF	11.0	-6 / 70		Produced Oil		900	6Mo	1946	4 Identical Units, MLG, Equal Tees Design, Horizontal Vent Connection
LG-K206 LT-K206	Magnetic Level Gauge c/w Level Transmitter	Top Lvl	150# RF	11.0	-6 / 70		Produced Oil		900	6Mo	1625	MLG + LT, Equal Tees Design, Hart® Communication

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LG-K206.1 LT-K206.1	Magnetic Level Gauge c/w Level Transmitter	Top Lvl	150# RF	11.0	-6 / 70		Produced Water		1038	6Mo	1575	MLG + LT, Equal Tees Design, Hart® Communication

BRAE / COMPACT FLOTATION UNIT (CFU) - MARATHON OIL UK LTD. - EPCON OFFSHORE AS / SIEMENS AS - 2006

LG-112 LT-112B	Magnetic Level Gauge c/w Level Transmitter	Top Lvl	300# RF	14.0	-10 / 100		Produced Water		1038	6Mo	2363	MLG + LT, Equal Tees Design, Hart® Communication, Integral LCD Display
LG-126 LT-126B	Magnetic Level Gauge c/w Level Transmitter	Top Lvl	300# RF	14.0	-10 / 100		Produced Water		1038	6Mo	2363	MLG + LT, Equal Tees Design, Hart® Communication, Integral LCD Display
LG-140 LT-139	Magnetic Level Gauge c/w Level Transmitter	Top Lvl	300# RF	14.0	-10 / 110		Produced Water and Oil		1038	6Mo	1700	MLG + LT, Equal Tees Design, Hart® Communication, Integral LCD Display
LG-212 LT-212B	Magnetic Level Gauge c/w Level Transmitter	Top Lvl	300# RF	14.0	-10 / 100		Produced Water		1038	6Mo	2639	MLG + LT, Equal Tees Design, Hart® Communication, Integral LCD Display
LG-226 LT-226B	Magnetic Level Gauge c/w Level Transmitter	Top Lvl	300# RF	14.0	-10 / 100		Produced Water		1038	6Mo	2639	MLG + LT, Equal Tees Design, Hart® Communication, Integral LCD Display
LG-255 LT-256	Magnetic Level Gauge c/w Level Transmitter	Top Lvl	300# RF	14.0	-10 / 100		Produced Water and Oil		1038	6Mo	1700	MLG + LT, Equal Tees Design, Hart® Communication, Integral LCD Display

CHINGUETTI FPSO TOPSIDES - WOODSIDE MAURITANIA PTY. LTD. (BERGESEN WORLDWIDE OFFSHORE AS) - VETCO AIBEL AS - 2004

20-LG-2008	1st Stage Separator Interface Level Gauge	Intf. Lvl	150# RF	FV / 19	0 / 90	Oil	Produced Water	820	980	SS 316Ti	1575	MLG
20-LG-2013 20-LT-2012	1st Stage Separator Oil Level Gauge and Transmitter	Top Lvl	150# RF	FV / 19	0 / 90	HC Gas	Oil	9.3	820	SS 316Ti	3550	MLG + LT, Hart® Communication
20-LG-2048	1st Stage Test Separator Interface Level Gauge	Intf. Lvl	150# RF	FV / 19	0 / 90	Oil	Produced Water	820	980	SS 316Ti	1575	MLG
20-LG-2053 20-LT-2052	1st Stage Test Separator Oil Level Gauge and Transmitter	Top Lvl	150# RF	FV / 19	0 / 90	HC Gas	Oil	9.3	820	SS 316Ti	3550	MLG + LT, Hart® Communication
20-LG-2083	Desalter Interface Level Gauge	Intf. Lvl	150# RF	FV / 11	0 / 120	Oil	Produced Water	820	957	SS 316Ti	2850	MLG
20-LG-2089	Trafo Oil Level Gauge at Coalescer 20ET005	Top Lvl	150# RF	FV / 10	-15 / 120	Gas	Trafo Oil		NA	SS 316L	120	Reflex GLG, Butt Weld Ends
20-LG-2092	Trafo Oil Level Gauge at Coalescer 20ET006	Top Lvl	150# RF	FV / 10	-15 / 120	Gas	Trafo Oil		NA	SS 316L	120	Reflex GLG, Butt Weld Ends
23-LG-6050 23-LT-6051	2nd Stage HP Compr. Suct. Scrubber Level Gauge and Transmitter	Top Lvl	300# RF	FV / 49.8	-5 / 65	HC Gas	TEG	32.5	1111	SS 316Ti	1600	MLG + LT, Hart® Communication
23-LG-6116A 23-LT-6117A	Gas/Liquid Filter Separator A Level Gauge and Transmitter	Top Lvl	1500# RTJ	FV / 247	-40 / 60	HC Gas	Lube Oil	217	924	SS 316Ti	1050	MLG + LT, Hart® Communication
23-LG-6116B 23-LT-6117B	Gas/Liquid Filter Separator B Level Gauge and Transmitter	Top Lvl	1500# RTJ	FV / 247	-40 / 60	HC Gas	Lube Oil	217	924	SS 316Ti	1050	MLG + LT, Hart® Communication
24-LG-6003	Glycol Contactor, Skim Box Level Gauge	Top Lvl	300# RF	FV / 49.8	-5 / 65	HC Gas	Condensate	41	550 to 700	SS 316Ti	400	MLG
24-LG-6004 24-LT-6005	Glycol Contactor, TEG Sump Level Gauge and Transmitter	Top Lvl	300# RF	FV / 49.8	-5 / 65	HC Gas	Triethylenglycol	32.5	1111	SS 316Ti	870	MLG + LT, Hart® Communication
29-LG-5022 29-LT-5020	Deaerator Level Gauge and Transmitter	Top Lvl	150# RF	FV / 16	0 / 90	Fuel Gas	Seawater	4.3	1030	SS 316Ti	5500	MLG + LT, Hart® Communication
38-LG-6009 38-LT-6010	Glycol Reboiler Level Gauge and Transmitter	Top Lvl	150# RF	FV / 6	0 / 234	Vapour	Triethylenglycol	1	972	SS 316Ti	1500	MLG + LT, Hart® Communication, Ceramic Rollers
38-LG-6012 38-LT-6013	Glycol Surge Drum Level Gauge and Transmitter	Top Lvl	150# RF	FV / 6	0 / 234	Vapour	Triethylenglycol	1	972	SS 316Ti	1500	MLG + LT, Hart® Communication, Ceramic Rollers
38-LG-6063	Glycol Flash Tank, Skim Box Level Gauge	Top Lvl	150# RF	FV / 10	0 / 120	HC Gas	Condensate	5.14	550 to 700	SS 316Ti	800	MLG
38-LG-6065 38-LT-6066	Glycol Flash Tank, TEG Comp. Level Gauge and Transmitter	Top Lvl	150# RF	FV / 10	0 / 120	HC Gas	Triethylenglycol	5.14	1005	SS 316Ti	1050	MLG + LT, Hart® Communication

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42-LG-5100	Chemical Injection - Biocide Storage Tank Level Gauge	Top Lvl	150# RF	FV / 1.7	0 / 100	Air	Biocide	1.1	> 800	SS 316Ti	2688	MLG
42-LG-5110	Chemical Injection - Scale Inhibitor Storage Tank Level Gauge	Top Lvl	150# RF	FV / 1.7	0 / 100	Air	Scale Inhibitor	1.1	> 800	SS 316Ti	2688	MLG
42-LG-5120	Chemical Injection - Oxygen Scavenger Storage Tank Level Gauge	Top Lvl	150# RF	FV / 1.7	0 / 100	Air	Oxygen Scavenger	1.1	> 800	SS 316Ti	2688	MLG
42-LG-5130 42-LT-5131	Chemical Injection - Sulphuric Acid Storage Tank Level Gauge and Transmitter	Top Lvl	150# RF	FV / 1.7	0 / 100	Air	Nitrate	1.1	1000	SS 316Ti	2688	MLG + LT, Hart® Communication
42-LG-5140	Chemical Injection - Antifoam Storage Tank Level Gauge	Top Lvl	150# RF	FV / 1.7	0 / 100	Air	Antifoam	1.1	> 800	SS 316Ti	2688	MLG
42-LG-5150	Chemical Injection - Corrosion Inhibitor Storage Tank Level Gauge	Top Lvl	150# RF	FV / 1.7	0 / 100	Air	Corrosion Inhibitor	1.1	> 800	SS 316Ti	2688	MLG
42-LG-7001 42-LT-7002	Chemical Injection - Demulsifier Storage Tank Level Gauge and Transmitter	Top Lvl	150# RF	FV / 1.7	0 / 100	Air	Demulsifier	1.1	> 800	SS 316Ti	2688	MLG + LT, Hart® Communication
42-LG-7010 42-LT-7011	Chemical Injection - Scale Inhibitor Storage Tank Level Gauge and Transmitter	Top Lvl	150# RF	FV / 1.7	0 / 100	Air	Scale Inhibitor	1.1	> 800	SS 316Ti	2688	MLG + LT, Hart® Communication
42-LG-7020 42-LT-7021	Chemical Injection - Asphaltene Storage Tank Level Gauge and Transmitter	Top Lvl	150# RF	FV / 1.7	0 / 100	Air	Asphaltene	1.1	> 1000	SS 316Ti	2688	MLG + LT, Hart® Communication
42-LG-7030 42-LT-7031	Chemical Injection - Wax Inhibitor Storage Tank Level Gauge and Transmitter	Top Lvl	150# RF	FV / 1.7	0 / 100	Air	Wax Inhibitor	1.1	> 1000	SS 316Ti	2688	MLG + LT, Hart® Communication
44-LG-2017 44-LT-2018	Produced Water Degasser Level Gauge and Transmitter	Top Lvl	150# RF	FV / 19	0 / 90	HC Gas	Produced Water	1.53	980	SS 316Ti	2900	MLG + LT, Hart® Communication
45-LG-5061 45-LT-5060	Fuel Gas Scrubber Level Gauge and Transmitter	Top Lvl	150# RF	FV / 16	0 / 90	Fuel Gas with some Seawater	Seawater	4.1	1022	SS 316Ti	1400	MLG + LT, Hart® Communication
45-LG-5077 45-LT-5078	Fuel Gas Deaerator Scrubber Level Gauge and Transmitter	Top Lvl	150# RF	FV / 19	0 / 90	Fuel Gas	Condensate	9.6	822	SS 316Ti	1400	MLG + LT, Hart® Communication

CRYSTAL OCEAN FPSO (SEPARATION TRAIN) - BROVIG OFFSHORE ASA - KVAERNER PALADON LIMITED - 1999

01-LT-201	01-V-001 LLLL/HLLL Slug Catcher Level Transmitter	Top Lvl	4*150#RF	FV / 92 (1.5-90)	-20 / 100 (10-90)	HC Gas	Crude Oil & Produced Water	1-90	650-1200	SS 316Ti	4670	Top mounted LT, Hart® Communication, CF340 Float
01-LT-203	01-V-001 Level Control Slug Catcher Level Transmitter	Top Lvl	4*150#RF	FV / 92 (1.5-90)	-20 / 100 (10-90)	HC Gas	Crude Oil & Produced Water	1-90	650-1200	SS 316Ti	4370	Top mounted LT, Hart® Communication, CF340 Float
05-LT-211	05-V-002 LLLL/HLLL	Top Lvl	4*150#RF	FV / 15 (0.5)	-20 / 100 (55-90)	HC Gas	Crude Oil	1.0-2.0	650-1200	SS 316Ti	3195	Top mounted LT, Hart® Communication
05-LT-212	05-V-002 Interface Control	Intf. Lvl	4*150#RF	FV / 15 (0.5)	-20 / 100 (55-90)	Crude Oil	Produced Water	650-1000	1000-1200	SS 316Ti	4595	Top mounted LT, Hart® Communication, Weighted Float
05-LT-213	05-V-002 Level Control	Top Lvl	4*150#RF	FV / 15 (0.5)	-20 / 100 (55-90)	HC Gas	Crude Oil	1.0-2.0	650-1200	SS 316Ti	2995	Top mounted LT, Hart® Communication
05-LT-214	05-V-002 LILL	Intf. Lvl	4*150#RF	FV / 15 (0.5)	-20 / 100 (55-90)	Crude Oil	Produced Water	650-1000	1000-1200	SS 316Ti	4895	Top mounted LT, Hart® Communication, Weighted Float
07-LT-219	07-V-003 Interface Control	Intf. Lvl	4*150#RF	FV / 15 (5)	-20 / 100 (40-90)	Crude Oil	Produced Water	650-1000	1000-1200	SS 316Ti	3525	Top mounted LT, Hart® Communication, Weighted Float
07-LT-220	07-V-003 HILL	Intf. Lvl	4*150#RF	FV / 15 (5)	-20 / 100 (40-90)	Crude Oil	Produced Water	650-1000	1000-1200	SS 316Ti	3075	Top mounted LT, Hart® Communication, Weighted Float
12-LT-225	12-V-009 LLHH & LLLL	Top Lvl	4*150#RF	FV / 15 (1.2)	-20 / 100 (40-90)	HC Gas	Condensate	1.5-2	650-1000	SS 316Ti	4340	Top mounted LT, Hart® Communication
12-LT-226	12-V-009 Level Control	Top Lvl	4*150#RF	FV / 15 (1.2)	-20 / 100 (40-90)	HC Gas	Condensate	1.5-2	650-1000	SS 316Ti	4140	Top mounted LT, Hart® Communication
12-LT-231	12-V-009 LLHH (HIPS)	Top Lvl	4*150#RF	FV / 15 (1.2)	-20 / 100 (40-90)	HC Gas	Condensate	1.5-2	650-1000	SS 316Ti	3740	Top mounted LT, Hart® Communication
13-LT-228	13-V-010 LLHH & LL	Top Lvl	4*150#RF	FV / 15 (0.2)	-20 / 100 (40-90)	HC Gas	Condensate	0.5-2	650-1000	SS 316Ti	4490	Top mounted LT, Hart® Communication

KSR KUEBLER Scope of Supply to Offshore Systems

Tag No.	Service Description	Duty	Flanges Pressure Rating	Design (Op.) Pressure [barg]	Design (Op.) Temperature [°C]	Fluid Upper	Fluid Lower	Density Upper Fluid [kg/m³]	Density Lower Fluid [kg/m³]	Chamber Material	C to C	Type / Remarks
13-LT-229	13-V-010 Level Control	Top Lvl	4"150#RF	FV / 15 (0.2)	-20 / 100 (40-90)	HC Gas	Condensate	0.5-2	650-1000	SS 316Ti	4290	Top mounted LT, Hart® Communication
13-LT-232	13-V-010 LLHH (HIPS)	Top Lvl	4"150#RF	FV / 15 (0.2)	-20 / 100 (40-90)	HC Gas	Condensate	0.5-2	650-1000	SS 316Ti	3890	Top mounted LT, Hart® Communication

CRYSTAL OCEAN FPSO (MODIFICATIONS FOR BASKER MANTA PROJECT / TEG DEHYDRATION PACKAGE) - ANZON AUSTRALIA LIMITED - UPSTREAM PETROLEUM PTY. LTD. (PROCESS GROUP PTY. LTD.) - 2006

28-LT-2001	Inlet Filter, Liquid HC Level Transmitter	Top Lvl	900# RF	92	0 / 70	Natural Gas	Liquid HC	79	478	SS 316Ti	400	MLG + Magnetostrictive LT, Hart® Communication, Without Roller Display, Chamber OD 76.1 x 5 mm
28-LT-2003	Inlet Filter, Liquid HC Level Transmitter	Top Lvl	900# RF	92	0 / 70	Natural Gas	Liquid HC	79	478	SS 316Ti	1100	MLG + Magnetostrictive LT, Hart® Communication, Without Roller Display, Chamber OD 76.1 x 5 mm
28-LT-2005 28-LG-2006	Inlet Filter, Liquid HC Level Gauge & Transmitter	Top Lvl	900# RF	92	0 / 70	Natural Gas	Liquid HC	79	478	SS 316Ti	400	MLG + Magnetostrictive LT, Hart® Communication, Local Scale, Chamber OD 76.1 x 5 mm
28-LT-2007 28-LG-2008	Inlet Filter, Liquid HC Level Gauge & Transmitter	Top Lvl	900# RF	92	0 / 70	Natural Gas	Liquid HC	79	478	SS 316Ti	1100	MLG + Magnetostrictive LT, Hart® Communication, Local Scale, Chamber OD 76.1 x 5 mm
28-LT-2009	Contacto, TEG Level Transmitter	Top Lvl	900# RF	92	0 / 70	Natural Gas	Rich TEG	55	1108	SS 316Ti	800	MLG + Magnetostrictive LT, Hart® Communication, Without Roller Display, Chamber OD 76.1 x 5 mm
28-LT-2011 28-LG-2012	Contacto, TEG Level Gauge & Transmitter	Top Lvl	900# RF	92	0 / 70	Natural Gas	Rich TEG	55	1108	SS 316Ti	800	MLG + Magnetostrictive LT, Hart® Communication, Local Scale, Chamber OD 76.1 x 5 mm
28-LT-2051	Flash Drum, TEG Level Transmitter	Top Lvl	300# RF	15	0 / 150	Natural Gas	Rich TEG	10	1103	SS 316Ti	1600	MLG + Magnetostrictive LT, Hart® Communication, Without Roller Display
28-LT-2053 28-LG-2054	Flash Drum, TEG Level Gauge & Transmitter	Top Lvl	300# RF	15	0 / 150	Natural Gas	Rich TEG	10	1103	SS 316Ti	1600	MLG + Magnetostrictive LT, Hart® Communication, Local Scale
28-LT-2056 28-LG-2057	Flash Drum, Condensate Level Gauge & Transmitter	Top Lvl	300# RF	15	0 / 150	Natural Gas	HC Condensate	10	533	SS 316Ti	1000	MLG + Magnetostrictive LT, Hart® Communication, Local Scale
28-LT-2101	Reboiler, TEG Level Transmitter	Top Lvl	300# RF	15	0 / 220	Water Vapour	Lean TEG	1.2	965	SS 316Ti	600	MLG + Magnetostrictive LT, Hart® Communication, Without Roller Display
28-LT-2103 28-LG-2104	Reboiler, TEG Level Gauge & Transmitter	Top Lvl	300# RF	15	0 / 220	Water Vapour	Lean TEG	1.2	965	SS 316Ti	600	MLG + Magnetostrictive LT, Hart® Communication, Ceramic Rollers, Local Scale
28-LT-2105 28-LG-2106	Surge Drum, Lean TEG Level Gauge & Transmitter	Top Lvl	300# RF	15	0 / 220	Natural Gas	Lean TEG	0.6	1072	SS 316Ti	750	MLG + Magnetostrictive LT, Hart® Communication, Ceramic Rollers, Local Scale
28-LT-2107	Surge Drum, Lean TEG Level Transmitter	Top Lvl	300# RF	15	0 / 220	Natural Gas	Lean TEG	0.6	1072	SS 316Ti	750	MLG + Magnetostrictive LT, Hart® Communication, Without Roller Display

CRYSTAL OCEAN FPSO (MODIFICATIONS FOR BASKER MANTA PROJECT) - ANZON AUSTRALIA LIMITED - SHEDDEN UHDE - 2006

28-LG-1551 28-LT-1553	Liquid Level on 1st Stage Suction KO Drum 28-V-012	Top Lvl	600# RF	FV / 92 (18.3)	-10 / 70 (35)	Hydrocarbon Gas	1st Stage Suction KO Drum Liquid	674.7-1001	6Mo NACE	1880	MLG + Magnetostrictive LT, Hart® Communication
28-LZT-1552	Liquid Level on 1st Stage Suction KO Drum 28-V-012	Top Lvl	600# RF	FV / 92 (18.3)	-10 / 70 (35)	Hydrocarbon Gas	1st Stage Suction KO Drum Liquid	674.7-1001	6Mo NACE	1880	GWR LT c/w External Chamber, Hart® Communication
28-LG-1601 28-LT-1603	Liquid Level on 2nd Stage Suction KO Drum 28-V-013	Top Lvl	600# RF	FV / 92 (47.2)	-10 / 70 (35)	Hydrocarbon Gas	2nd Stage Suction KO Drum Liquid	583.1-993	6Mo NACE	2815	MLG + Magnetostrictive LT, Hart® Communication
28-LZT-1602	Liquid Level on 2nd Stage Suction KO Drum 28-V-013	Top Lvl	600# RF	FV / 92 (47.2)	-10 / 70 (35)	Hydrocarbon Gas	2nd Stage Suction KO Drum Liquid	583.1-993	6Mo NACE	2815	GWR LT c/w External Chamber, Hart® Communication
28-LG-1601 28-LT-1603	Liquid Level on 3rd Stage Suction KO Drum 28-V-014	Top Lvl	1500# RF	FV / 180 (102.85)	-10 / 70 (35)	Hydrocarbon Gas	3rd Stage Suction KO Drum Liquid	901.9	6Mo NACE	1100	MLG + Magnetostrictive LT, Hart® Communication
28-LZT-1652	Liquid Level on 3rd Stage Suction KO Drum 28-V-014	Top Lvl	1500# RF	FV / 180 (102.85)	-10 / 70 (35)	Hydrocarbon Gas	3rd Stage Suction KO Drum Liquid	901.9	6Mo NACE	1100	GWR LT c/w External Chamber, Hart® Communication

EKOFISK AREA GROWTH 2/4M WELLHEAD & PROCESS PLATFORM - CONOCOPHILLIPS NORGE - AKER KVAERNER STAVANGER - 2004

BD/EKOM/43 LG-1318	Diesel Storage Tank 95-00019	Top Lvl	150# RF	19 (0 to 0.4)	-101 / 80 (-6 to 20)		Treated Diesel	850	SS 316L Painted	4750	MLG
BD/EKOM/43 LG-1329A	Diesel Storage Tank 95-00016	Top Lvl	150# RF	19 (0 to 0.1)	-101 / 80 (-6 to 20)		Raw Diesel	850	SS 316L Painted	2000	MLG

KSR KUEBLER Scope of Supply to Offshore Systems

Tag No.	Service Description	Duty	Flanges Pressure Rating	Design (Op.) Pressure [barg]	Design (Op.) Temperature [°C]	Fluid Upper	Fluid Lower	Density Upper Fluid [kg/m³]	Density Lower Fluid [kg/m³]	Chamber Material	C to C	Type / Remarks
BD/EKOM/43 LG-1330A	Diesel Storage Tank 95-00017	Top Lvl	150# RF	19 (0 to 0.1)	-101 / 80 (-6 to 20)		Raw Diesel		850	SS 316L Painted	2000	MLG
BD/EKOM/43 LG-1329B	Diesel Storage Tank 95-00016	Top Lvl	150# RF	19 (0 to 1.1)	-101 / 80 (-6 to 20)		Raw Diesel		850	SS 316L Painted	1500	MLG
BD/EKOM/43 LG-1330B	Diesel Storage Tank 95-00017	Top Lvl	150# RF	19 (0 to 1.1)	-101 / 80 (-6 to 20)		Raw Diesel		850	SS 316L Painted	1500	MLG

ENFIELD AREA DEVELOPMENT PROJECT - WOODSIDE ENERGY LTD. - FLUORAMEC JOINT VENTURE - 2004

36LZT111	Reboiler Level Gauge and Transmitter	Top Lvl	150# RF	3.5	235		Lean TEG		986	6Mo	908	MLG + LT, Hart® Communication, Scale (Customer: KCC Process Abu Dhabi)
36LZT112	Reboiler Surge Level Gauge and Transmitter	Top Lvl	150# RF	3.5	235		Lean Glycol		986	6Mo	1028	MLG + LT, Hart® Communication, Scale (Customer: KCC Process Abu Dhabi)
36LZT142	Flash Drum Hydrocarbon Level Gauge and Transmitter	Top Lvl	150# RF	8	100		HC Liquid + Glycol		600 - 1099	SS 316L	590	MLG + LT, Hart® Communication, Scale (Customer: KCC Process Abu Dhabi)
36LT141	Flash Drum Hydrocarbon Level Gauge and Transmitter	Top Lvl	150# RF	8	100		HC Liquid		600	SS 316L	1200	MLG + LT, Foundation Fieldbus, Scale (Customer: KCC Process Abu Dhabi)
36LT143	Flash Drum Interface Level Gauge and Transmitter	Intf. Lvl	150# RF	8	100	HC Liquid	Glycol	600	1099	SS 316L	600	MLG + LT, Foundation Fieldbus, Scale (Customer: KCC Process Abu Dhabi)

ESPOIR IVOIRIEN FPSO - WEST ESPOIR PROJECT - PROSAFE AS / CANADIAN NATURAL RESOURCES LTD. - VETCO AIBEL AS - 2004

29-LG-502 29-LT-502	Deaerator Level Gauge and Level Transmitter	Top Lvl	150# RF	5 / FV	0 / 60	Air	Seawater	1.3	1030	SS 316Ti	5500	MLG + LT, Hart® Communication
35-LG-500	Chemical Injection - Level Gauge on Corrosion Inhibitor Storage Tank	Top Lvl	150# RF	5 / FV	0 / 60	Air	Corrosion Inhibitor (Roemex RX-202)		1350	SS 316Ti	1980	MLG
35-LG-510	Chemical Injection - Level Gauge on Biocide Storage Tank	Top Lvl	150# RF	5 / FV	0 / 60	Air	Biocide (Roemex RX-1211A)		1060	SS 316Ti	1980	MLG
35-LG-520	Chemical Injection - Level Gauge on Oxygen Scavanger Storage Tank	Top Lvl	150# RF	5 / FV	0 / 60	Air	Oxygen Scavanger (Roemex RX-202)		1350	SS 316Ti	1980	MLG
35-LG-530	Chemical Injection - Level Gauge on Scale Inhibitor Storage Tank	Top Lvl	150# RF	5 / FV	0 / 60	Air	Scale Inhibitor (Roemex RX-6003)		1150	SS 316Ti	1980	MLG
35-LG-540	Chemical Injection - Level Gauge on Antifoam Storage Tank	Top Lvl	150# RF	5 / FV	0 / 60	Air	Antifoam (Roemex RX-5505)		900	SS 316Ti	1980	MLG

GARN WEST TOPSIDE / PRODUCED WATER / DRAUGEN - A/S NORSKE SHELL - AKER OFFSHORE PARTNER AS - 2001

A21LZT0183/ A21LG0183	Train 2 Separator Oil Level Transmitter to Process Shut Down (PSD)	Top Lvl	150# RF	15 / FV	-9 / 80	Hydrocarbons Vapour	Hydrocarbons Liquid	9.4	793	6Mo	3141	MLG + LT, Hart® Communication, LCD Field Meter 3 Process Connections
A21LT0184/ A21LG0184	Train 2 Separator Oil Level Transmitter to DCS	Top Lvl	150# RF	15 / FV	-9 / 80	Hydrocarbons Vapour	Hydrocarbons Liquid	9.4	793	6Mo	3153	MLG + LT, Hart® Communication, LCD Field Meter 3 Process Connections
A21LT0190/ A21LG0190	Train 2 Separator Interface Level Transmitter to DCS	Intf. Lvl	150# RF	15 / FV	-9 / 80	Hydrocarbons Liquid	Produced Water	793	1010	6Mo	2510	MLG + LT, Hart® Communication, LCD Field Meter 3 Process Connections
A21LZT0191/ A21LG0191	Train 2 Separator Interface Level Transmitter to Process Shut Down (PSD)	Intf. Lvl	150# RF	15 / FV	-9 / 80	Hydrocarbons Liquid	Produced Water	793	1010	6Mo	2502	MLG + LT, Hart® Communication, LCD Field Meter 3 Process Connections
A41LZT7510/ A41LG7510	Produced Water Degasser Level Transmitter to Process Shut Down (PSD)	Top Lvl	150# RF	18 / FV	-9 / 80	Hydrocarbons Vapour	Hydrocarbons Liquid Produced Water	1.3	793 - 1003 1010	6Mo	2128	MLG + LT, Hart® Communication, LCD Field Meter
A41LT7511/ A41LG7511	Produced Water Degasser Level Transmitter to DCS	Top Lvl	150# RF	18 / FV	-9 / 80	Hydrocarbons Vapour	Hydrocarbons Liquid Produced Water	1.3	793 - 1003 1010	6Mo	2646	MLG + LT, Hart® Communication, LCD Field Meter 3 Process Connections
A41LT7512/ A41LG7512	Produced Water Degasser Skimming Chamber Level Transmitter to DCS	Top Lvl	150# RF	18 / FV	-9 / 80	Hydrocarbons Vapour	Crude / Reject Stream	1.3	793 - 1003	6Mo	2696	MLG + LT, Hart® Communication, LCD Field Meter 3 Process Connections
A41LZT7513/ A41LG7513	Produced Water Degasser Skimming Chamber Level Transmitter to Process Shut Down (PSD)	Top Lvl	150# RF	18 / FV	-9 / 80	Hydrocarbons Vapour	Crude / Reject Stream	1.3	793 - 1003	6Mo	2438	MLG + LT, Hart® Communication, LCD Field Meter

GOLFINHO II FPSO - PETROBRAS - SAIPEM FPSO S.P.A. / VETCO AIBEL AS - 2006

KSR KUEBLER Scope of Supply to Offshore Systems

Tag No.	Service Description	Duty	Flanges Pressure Rating	Design (Op.) Pressure [barg]	Design (Op.) Temperature [°C]	Fluid Upper	Fluid Lower	Density Upper Fluid [kg/m³]	Density Lower Fluid [kg/m³]	Chamber Material	C to C	Type / Remarks
200SJQ LIT004	Oil Level HP Separator	Top Lvl	150# RF	FV / 16	-45 / 90	HC Gas	Crude Oil		784-850	SS 316Ti	2200	Dual Chamber MLG c/w Guided Wave Radar, Hart® Communication
200SJQ LIT012	Level LP Separator	Top Lvl	150# RF	FV / 12	-10 / 110	HC Gas	Crude Oil		794-832	SS 316Ti	2100	Dual Chamber MLG c/w Guided Wave Radar, Hart® Communication
200SJQ LIT054	Level Test Separator	Top Lvl	150# RF	FV / 16	-10 / 90	HC Gas	Crude Oil		784-853	SS 316Ti	1400	Dual Chamber MLG c/w Guided Wave Radar, Hart® Communication
230SJQ LIT002	HP Flare K.O. Drum	Top Lvl	150# RF	FV / 16	-45 / 200	HC Gas	HC Liquid		681-888	SS 316Ti	1000	Dual Chamber MLG c/w Guided Wave Radar, Hart® Communication
230SJQ LIT012	LP Flare K.O. Drum	Top Lvl	150# RF	FV / 10	-45 / 200	HC Gas	HC Liquid		681-888	SS 316Ti	1000	Dual Chamber MLG c/w Guided Wave Radar, Hart® Communication
300SJQ LIT002	Gas Production Separator	Top Lvl	1500# RTJ	FV / 230	-45 / 60	HC Gas	HC Liquid		615-675	SS 316L	2537	Dual Chamber MLG c/w Guided Wave Radar, Hart® Communication
360SJQ LIT002	Safety K.O. Drum to LP Separator	Top Lvl	150# RF	FV / 16	-45 / 90	HC Gas	HC Liquid		658-707	SS 316Ti	1000	Dual Chamber MLG c/w Guided Wave Radar, Hart® Communication
420SJQ LIT002	HP Fuel Gas Scrubber	Top Lvl	300# RF	FV / 49.5	-45 / 60	HC Gas	HC Liquid		514-687	SS 316Ti	1000	Dual Chamber MLG c/w Guided Wave Radar, Hart® Communication

HULDRA EPC WELLHEAD PLATFORM TOPSIDES - STATOIL - KVÆRNER OIL & GAS A.S - 2000

20-LG 2006	Production Separator	Top Lvl	1500# RTJ	150 / FV	-46 / 130	Hydrocarbons Vapour	HC Liq. & Produced Water Mixture	96.5	645 - 952	6Mo	1700	MLG
24-LG 2004	Gas Scrubber	Top Lvl	1500# RTJ	150 / FV	-46 / 60	Hydrocarbons Vapour	Hydrocarbons Liquid & Water Mixture	103.5	576 - 894	6Mo	1700	MLG
42-LG 2023	MEG Storage Vessel	Top Lvl	150# RF	3.5 / FV	-9 / 50		MEG (Monoethylene Glycol)		1120 - 1136	SS 316L	1200	MLG
42-LG 2064	Methanol Storage Vessel	Top Lvl	150# RF	3.5 / FV	-46 / 50	Nitrogen	Methanol	1	792	SS 316L	2550	MLG
42-LG 2066	MEG Storage Vessel	Top Lvl	150# RF	3.5 / FV	-9 / 50		MEG (Monoethylene Glycol)		1120 - 1136	SS 316L	1000	MLG
42-LG 2096	Fresh MEG Storage Vessel	Top Lvl	150# RF	3.5 / FV	-9 / 50	Nitrogen	MEG (Monoethylene Glycol)	1	1134	SS 316L	1000	MLG
42-LG 2097	Fresh MEG Storage Vessel	Top Lvl	150# RF	3.5 / FV	-9 / 50	Nitrogen	MEG (Monoethylene Glycol)	1	1134	SS 316L	1000	MLG
43-LG 2037	High Pressure Vent Knock Out Drum	Top Lvl	150# RF	13.6	-120 / 120	Gas	Condensate and Water	4.7	799	SS 316L	3000	MLG

JUBARTE FIELD - PETROBRAS - AKER KVAERNER PROCESS SYSTEMS AS - 2006

	Two Phase Separator Oil/Water Level Gauge and Transmitter	Intf. Lvl	150# RF	14 (10)	90 (100)	Crude Oil	Produced Water	952.9	1088.6	6Mo	1300	MLG c/w LT, Integral LCD Display, Hart® Communication
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JURASSIC PROJECT (RINGHORNE EXTENSION) - ESSO NORGE AS - ABB OFFSHORE SYSTEMS AS - 2003

LG5327	Chemical Injection - Wax Inhibitor Storage Vessel Level Gauge	Top Lvl	150# RF	11	-8 / 23		Wax Inhibitor		880	SS 316L	1630	MLG, Drain with Elbow
LG5337/ LT5338	Chemical Injection - Antifoam Storage Vessel Level Gauge and Level Transmitter	Top Lvl	150# RF	11	-8 / 23		Antifoam		780 - 840	SS 316L	1630	MLG + LT, Hart® Communication, Drain with Elbow
LG5347/ LT5348	Chemical Injection - Demulsifier Storage Vessel Level Gauge and Level Transmitter	Top Lvl	150# RF	11	-8 / 23		Demulsifier		885 - 895	SS 316L	1630	MLG + LT, Hart® Communication, Drain with Elbow
LG5357	Chemical Injection - Corrosion Inhibitor Storage Vessel Level Gauge	Top Lvl	150# RF	11	-8 / 23		Corrosion Inhibitor		1060	SS 316L	1630	MLG, Drain with Elbow

KNOCK TAGGART FPSO / SECOND TRAIN PROJECT - FRED. OLSEN PRODUCTION A.S (ADDAX PETROLEUM) - HITEC FRAMNAES KANFA AS - 2002

LG 356	Separator Oil / Water Interface Level Gauge	Intf. Lvl	150# RF	150 lbs	200	Oil	Water	815	980	SS 316Ti	1205	MLG, red and blue rollers (Customer: Process Partner AS)
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KSR KUEBLER Scope of Supply to Offshore Systems

Tag No.	Service Description	Duty	Flanges Pressure Rating	Design (Op.) Pressure [barg]	Design (Op.) Temperature [°C]	Fluid Upper	Fluid Lower	Density Upper Fluid [kg/m³]	Density Lower Fluid [kg/m³]	Chamber Material	C to C	Type / Remarks
LG 357	Separator Oil Level Gauge	Top Lvl	150# RF	150 lbs	200	Hydrocarbon Gas	Oil		815	SS 316Ti	3006	MLG, white and red rollers (Customer: Process Partner AS)
LG 556	Separator Oil / Water Interface Level Gauge	Intf. Lvl	150# RF	150 lbs	200	Oil	Water	815	980	SS 316Ti	1205	MLG, red and blue rollers (Customer: Process Partner AS)
LG 557	Separator Oil Level Gauge	Top Lvl	150# RF	150 lbs	200	Hydrocarbon Gas	Oil		815	SS 316Ti	3006	MLG, white and red rollers (Customer: Process Partner AS)

KVITEBJØRN PLATFORM - STATOIL - ABB OFFSHORE SYSTEMS AS - 2001

20LI0221	2nd Stage Separator Condensate Level Indicator	Top Lvl	300# RF	FV / 34	-46 / 130	Hydrocarbon Vapour	Hydrocarbon Liquid	23.0	709	6Mo	1699	MLG, Local Scale in mm
20LI0321	3rd Stage Separator Condensate Level Indicator	Top Lvl	150# RF	FV / 10	-30 / 110	Hydrocarbon Vapour	Hydrocarbon Liquid	3.15	743.5	6Mo	1760	MLG, Local Scale in mm
20LI0322	3rd Stage Separator Water / Condensate Interface Level Indicator	Intf. Lvl	150# RF	FV / 10	-30 / 110	Hydrocarbon Liquid	Produced Water	746.5	974.5	6Mo	575	MLG, Local Scale in mm, blue & red rollers
23LI0105	1st Stage Compressor Suction Scrubber Level Indicator	Top Lvl	150# RF	FV / 15	-30 / 100	Hydrocarbon Vapour	Hydrocarbon Liquid + Water	2.9	748.0	SS 316L	700	MLG, Local Scale in mm
23LI0205	2nd Stage Compressor Suction Scrubber Level Indicator	Top Lvl	300# RF	FV / 19	-30 / 100	Hydrocarbon Vapour	Hydrocarbon Liquid + Water	11.3	601.9	SS 316L	880	MLG, Local Scale in mm
23LI0305	3rd Stage Compressor Suction Scrubber Level Indicator	Top Lvl	600# RTJ	FV / 64	-30 / 120	Hydrocarbon Vapour	Hydrocarbon Liquid + Water	28.9	630.0	6Mo	840	MLG, Local Scale in mm
23LI0405	4th Stage Compressor Suction Scrubber Level Indicator	Top Lvl	600# RTJ	FV / 93	-30 / 120	Hydrocarbon Vapour	Hydrocarbon Liquid + Water	81.0	487.3	6Mo	660	MLG, Local Scale in mm
23LI2000/ 23LE2000	Power Generation & Compression Equipment Lub Oil Level Indicator and Level Transmitter	Top Lvl	150# RF	Atm.	80		Lub Oil ISO VG 32		875	6Mo	500	MLG + LT, Fisher-Rosemount FF Remote Transmitter (Customer: K.G.D. UK)
23LI2015/ 23LE2015	Power Generation & Compression Equipment Lub Oil Level Indicator and Level Transmitter	Top Lvl	150# RF	Atm.	80		Lub Oil ISO VG 32		875	SS 316L	913	MLG + LT, Fisher-Rosemount FF Remote Transmitter (Customer: K.G.D. UK)
	Power Generation & Compression Equipment Gearbox Hydraulic Oil Tank Level	Top Lvl	150# RF	Atm.	29 / 70		Gearbox Hydraulic Oil (ISO VG 46)		840	SS 316Ti	890	Top Mounted MLG + LT, Fisher-Rosemount FF Remote Transmitter (Customer: Voith Turbo)
40LI0110	Process Cooling Medium Expansion Tank Level Indicator	Top Lvl	150# RF	FV / 5	-9 / 85	Nitrogen	35% MEG 65% Water	1.8	1050	SS 316L	2800	MLG, Local Scale in mm
40LI0212/ 40LT0212	Utility Cooling Medium Expansion Tank Level Indicator and Level Transmitter	Top Lvl	150# RF	FV / 5	-9 / 85	Nitrogen	35% MEG 65% Water	1.8	1050	SS 316L	1500	MLG + LT, Fisher-Rosemount FF Transmitter, Local Scale in mm
43LI0100	HP Flare KO Drum HC / Water Interface Level Indicator	Intf. Lvl	150# RF	FV / 12	-90 / 120	Hydrocarbon Liquid	Glycol Inhibited Water	750	1000	6Mo	435	MLG, Local Scale in mm, blue & red rollers
43LI0101	HP Flare KO Drum Oil Level Indicator	Top Lvl	150# RF	FV / 12	-90 / 120	Hydrocarbon Gas	Hydrocarbon Liquid	1 - 9	750	6Mo	1785	MLG, Local Scale in mm
43LI0106	Drain Pot HP Flare Level Indicator	Top Lvl	150# RF	FV / 12	-90 / 120		Drain Fluid		700 - 1045	6Mo	1000	MLG, Local Scale in mm
43LI0201	LP Flare KO Drum Level Indicator	Top Lvl	150# RF	FV / 7	-46 / 130	Hydrocarbon Gas	Hydrocarbon Liquid	1 - 4	700 - 1000	6Mo	1780	MLG, Local Scale in mm
45LI0015	Fuel Gas Scrubber Level Indicator	Top Lvl	300# RF	FV / 46	-46 / 145	Hydrocarbon Vapour	Hydrocarbon Liquid	33.9	699	SS 316L	680	MLG, Local Scale in mm
45LI0042/ 45LT0042	Fuel Gas Filter Level Indicator and Level Transmitter	Top Lvl	300# RF	FV / 46	-46 / 60	Hydrocarbon Vapour	Hydrocarbon Liquid	28.8	699	SS 316L	600	MLG, Local Scale in mm
45LI0046/ 45LT0046	Fuel Gas Filter Level Indicator and Level Transmitter	Top Lvl	300# RF	FV / 46	-46 / 60	Hydrocarbon Vapour	Hydrocarbon Liquid	28.8	699	SS 316L	600	MLG, Local Scale in mm
62LI1003 62LT1003	Diesel Coalescer Filter Level Indicator and Level Transmitter	Intf. Lvl	150# RF	FV / 11	-9 / 50	Raw Diesel	Water	820 - 860	995 - 1025	SS 316L	250	MLG + LT, Fisher-Rosemount Foundation Fieldbus Transmitter (Customer: Betex AS)
62LI1005 62LT1005	Diesel Coalescer Filter Level Indicator and Level Transmitter	Intf. Lvl	150# RF	FV / 11	-9 / 50	Raw Diesel	Water	820 - 860	995 - 1025	SS 316L	250	MLG + LT, Fisher-Rosemount Foundation Fieldbus Transmitter (Customer: Betex AS)
	Mineral-based Oil Level Indicator and Level Transmitter	Top Lvl	150# RF	Atm.	0 / 50		Mineral-based oil		900	SS 316L	1000	2 identical units, MLG + LT, Fisher-Rosemount FF Transmitter (Customer: CAC UK)

KSR KUEBLER Scope of Supply to Offshore Systems

Tag No.	Service Description	Duty	Flanges Pressure Rating	Design (Op.) Pressure [barg]	Design (Op.) Temperature [°C]	Fluid Upper	Fluid Lower	Density Upper Fluid [kg/m³]	Density Lower Fluid [kg/m³]	Chamber Material	C to C	Type / Remarks
LAMINARIA FPSO - WOODSIDE - THE KVÆRNER-SBM CONSORTIUM - 1998												
20-LG-023	Laminaria 1st Stage Separator Interface Level	Intf. Lvl	300# RF	FV / 19	-10 / 110	Crude Oil	Produced Water	673 - 697	961 - 979	6Mo	2065	MLG, Local Scale in cm
20-LG-024	Laminaria 1st Stage Separator Oil Level	Top Lvl	300# RF	FV / 19	-10 / 110	Hydrocarbon Gas	Crude Oil	10.0 - 11.6	673 - 697	6Mo	1950	MLG, Local Scale in cm
21-LG-023	Corallina 1st Stage Separator Interface Level	Intf. Lvl	300# RF	FV / 19	-10 / 110	Crude Oil	Produced Water	673 - 697	961 - 979	6Mo	2065	MLG, Local Scale in cm
21-LG-024	Corallina 1st Stage Separator Oil Level	Top Lvl	300# RF	FV / 19	-10 / 110	Hydrocarbon Gas	Crude Oil	10.0 - 11.6	673 - 697	6Mo	1950	MLG, Local Scale in cm
23-LG-003	2nd Stage Separator Oil Level	Top Lvl	150# RF	FV / 7	-10 / 110	Hydrocarbon Gas	Crude Oil	3.4 - 4.8	705 - 713	6Mo	2010	MLG, Local Scale in cm
23-LG-017	Coalescer Interface Level	Intf. Lvl	150# RF	FV / 8	-10 / 110	Crude Oil	Produced Water	713	978	6Mo	1420	MLG, Local Scale in cm
23-LG-041	2nd Stage Separator Oil Level	Top Lvl	150# RF	FV / 7	-10 / 110	Hydrocarbon Gas	Crude Oil	3.4 - 4.8	705 - 713	6Mo	2270	MLG, Local Scale in cm
29-LG-019	Oil Level Test Separator	Top Lvl	300# RF	FV / 19	-10 / 110	Hydrocarbon Gas	Crude Oil	10.0	673	6Mo	3065	MLG, Local Scale in cm
29-LG-042	Interface Level Test Separator	Intf. Lvl	300# RF	FV / 19	-10 / 110	Crude Oil	Produced Water	673	979	6Mo	1570	MLG, Local Scale in cm
30-LG-009	Gas Injection Compressor Scrubber	Top Lvl	2500# RTJ	FV / 314	-46 / 130	Hydrocarbon Gas	Condensate	278.5	489.7	SS 316L	1370	Glass Level Gauge with glass fusionned to metal inserts, Local Scale in cm
32-LG-005	1st Stage Level Gauge Compressor Scrubber A	Top Lvl	300# RF	FV / 30	-10 / 140	hydrocarbon Gas	Condensate	10.3 - 12.1	587.1 - 626	6Mo	2335	MLG, Local Scale in cm
32-LG-025	3rd Stage Level Gauge Compressor Scrubber A	Top Lvl	1500# RF	FV / 147	-46 / 130	Hydrocarbon Gas	Condensate	121.1 - 141.9	489.7 - 497.4	SS 316L	1015	MLG, Local Scale in cm
32-LG-035	2nd Stage Level Gauge Compressor Scrubber A	Top Lvl	600# RF	FV / 88	-46 / 130	Hydrocarbon Gas	Condensate	51.5 - 57.5	515.4 - 533.4	SS 316L	1420	MLG, Local Scale in cm
32-LG-045	3rd Stage Level Gauge Compressor Scrubber B	Top Lvl	1500# RF	FV / 147	-46 / 130	Hydrocarbon Gas	Condensate	121.1 - 141.9	489.7 - 497.4	SS 316L	1015	MLG, Local Scale in cm
32-LG-065	1st Stage Level Gauge Compressor Scrubber B	Top Lvl	300# RF	FV / 30	-10 / 140	Hydrocarbon Gas	Condensate	10.3 - 12.1	587.1 - 626	6Mo	2335	MLG, Local Scale in cm
32-LG-095	2nd Stage Level Gauge Compressor Scrubber B	Top Lvl	600# RF	FV / 88	-46 / 130	Hydrocarbon Gas	Condensate	51.5 - 57.5	515.4 - 533.4	SS 316L	1420	MLG, Local Scale in cm
34-LG-008	RCMP Suction Scrubber Level Meter	Top Lvl	150# RF	FV / 11	-10 / 140	Hydrocarbon Vapour	Hydrocarbon Liquid	2.8	666	6Mo	1725	MLG, Local Scale in cm
36-LG-013	Wet Gas Scrubber Level	Top Lvl	600# RF	FV / 71	-46 / 130	Hydrocarbon Vapour	Hydrocarbon Liquid	53.9	534.4	6Mo	2640	MLG, Local Scale in cm
36-LG-016	Filter Coalescer Level	Top Lvl	600# RF	FV / 71	-46 / 130	Hydrocarbon Vapour	Hydrocarbon Liquid	53.9	534.4	6Mo	1015	MLG, Local Scale in cm
36-LG-026	Filter Coalescer / Yane Pack Drain Level	Top Lvl	600# RF	FV / 71	-46 / 130	Hydrocarbon Vapour	Hydrocarbon Liquid	53.9	534.4	6Mo	250	MLG, Local Scale in cm
37-LG-017	DBTNS FEED Drum Interface Level	Intf. Lvl	300# RF	FV / 19	-10 / 140	Condensate	Water	598	983	6Mo	1025	MLG, Local Scale in cm
37-LG-020	DBTNS FEED Drum Level	Top Lvl	300# RF	FV / 19	-10 / 140	Hydrocarbon Gas	Condensate	14.4	598	6Mo	2830	MLG, Local Scale in cm
37-LG-030	DBTNS Column Bottom	Top Lvl	300# RF	FV / 19	-10 / 170	Hydrocarbon Gas	Crude Oil	27.8	525.5	6Mo	3300	MLG, Local Scale in cm
37-LG-054	DBTNS Reflux Drum Interface Level	Intf. Lvl	300# RF	FV / 19	-10 / 140	LPG	Water	534.7	995	6Mo	1025	MLG, Local Scale in cm
37-LG-060	DBTNS Reflux Drum	Top Lvl	300# RF	FV / 19	-10 / 140	Hydrocarbon Gas	LPG	17.7	534.7	6Mo	2830	MLG, Local Scale in cm

KSR KUEBLER Scope of Supply to Offshore Systems

Tag No.	Service Description	Duty	Flanges Pressure Rating	Design (Op.) Pressure [barg]	Design (Op.) Temperature [°C]	Fluid Upper	Fluid Lower	Density Upper Fluid [kg/m³]	Density Lower Fluid [kg/m³]	Chamber Material	C to C	Type / Remarks
37-LG-117	Hydrocarbon Liquid / Water	Intf. Lvl	300# RF	24	-10 / 140	Hydrocarbon Liquid	Water	598	983	6Mo	403	MLG, Local Scale in cm
37-LG-121	DEBUT Reflux Coalescer	Intf. Lvl	300# RF	24	-10 / 140	Hydrocarbon Liquid	Water	534.7	998	6Mo	403	MLG, Local Scale in cm
42-LG-002	Methanol Storage Vessel	Top Lvl	150# RF	FV / 6	-10 / 80	Fuel Gas	Methanol	2.2	774	6Mo	2030	MLG, Local Scale in cm
42-LG-019	Methanol Storage Vessel	Top Lvl	150# RF	FV / 6	-10 / 80	Fuel Gas	Methanol	2.2	774	6Mo	2335	MLG, Local Scale in cm
43-LG-025	Produced Water Degassing Drum	Top Lvl	300# RF	FV / 20	-10 / 110	Fuel Gas	Produced Water	1.6 - 2.9	980	6Mo	1725	MLG, Local Scale in cm
43-LG-027	Produced Water Degassing Drum Bucket	Top Lvl	300# RF	FV / 20	-10 / 110	Fuel Gas	Oil	1.6 - 2.9	734	6Mo	1420	MLG, Local Scale in cm
44-LG-002	Fuel Gas Knock Out Drum	Top Lvl	300# RF	FV / 38	-20 / 110	Hydrocarbon Gas	Hydrocarbon Liquid	39.3	545	6Mo	2200	MLG, Local Scale in cm
44-LG-068	Fuel Gas Filter / Scrubber A	Top Lvl	300# RF	FV / 38	-20 / 110	Hydrocarbon Gas	Hydrocarbon Liquid	35.6	545	6Mo	400	MLG, Local Scale in cm
44-LG-069	Fuel Gas Filter / Scrubber B	Top Lvl	300# RF	FV / 38	-20 / 110	Hydrocarbon Gas	Hydrocarbon Liquid	35.6	545	6Mo	400	MLG, Local Scale in cm
44-LG-070	Fuel Gas Filter / Scrubber A	Top Lvl	300# RF	FV / 38	-20 / 110	Hydrocarbon Gas	Hydrocarbon Liquid	35.6	545	6Mo	810	MLG, Local Scale in cm
44-LG-071	Fuel Gas Filter / Scrubber B	Top Lvl	300# RF	FV / 38	-20 / 110	Hydrocarbon Gas	Hydrocarbon Liquid	35.6	545	6Mo	810	MLG, Local Scale in cm
45-LG-004	Level High Pressure Knock Out Drum	Top Lvl	150# RF	FV / 9	-101 / 160	Hydrocarbon Gas	Hydrocarbon Liquid	1.1 - 7.3	600 - 1000	6Mo	1725	MLG, Local Scale in cm
45-LG-012	Level Low Pressure Knock Out Drum	Top Lvl	150# RF	3.5	-46 / 130	Hydrocarbon Gas	Seawater	1.1 - 2.3	600 - 1026	6Mo	1725	MLG, Local Scale in cm
47-LG-002	Hazardous Open Drain	Top Lvl	150# RF	Atm. / 3.5	-10 / 80		Seawater		1022	6Mo	1450	MLG, Local Scale in cm
47-LG-003	Hazardous Open Drain	Top Lvl	150# RF	Atm. / 3.5	-10 / 80		Seawater		1022	6Mo	1450	MLG, Local Scale in cm
47-LG-004	Non-Hazardous Open Drain	Top Lvl	150# RF	Atm. / 3.5	-10 / 80		Seawater		1022	6Mo	1450	MLG, Local Scale in cm
47-LG-005	Non-Hazardous Open Drain	Top Lvl	150# RF	Atm. / 3.5	-10 / 80		Seawater		1022	6Mo	1450	MLG, Local Scale in cm
47-LG-006		Top Lvl	150# RF	Atm. / 3.5	-10 / 80		Seawater		1022	6Mo	1450	MLG, Local Scale in cm
48-LG-003	Level Closed Drain Drum	Top Lvl	150# RF	3.5	-46 / 140	Hydrocarbon Gas	Produced Water	1.1	1026	6Mo	1620	MLG, Local Scale in cm
57-LG-010	Heating Medium Expansion Tank	Top Lvl	300# RF	FV / 20.5	-10 / 195	Nitrogen	Fresh Water	15	996	6Mo	2335	MLG, Local Scale in cm
57-LG-011	Heating Medium Expansion Tank	Top Lvl	300# RF	FV / 20.5	-10 / 195	Nitrogen	Fresh Water	15	996	6Mo	2640	MLG, Local Scale in cm

MINI AND CECILIE PLATFORMS PROJECT - DONG - CWO SEMCO MARITIME A/S - 2003

1210-57-LG-0002	Drain Tank Level Gauge	Top Lvl	150# RF	FV / 19	-46 / 93		Crude Oil, Water, Chemicals		> 840	SS 316Ti	1525	MLG, Local Scale in cm
1210-62-LG-0002	Diesel Oil Tank Level Gauge	Top Lvl	150# RF	FV / 19	-7 / 38		Diesel Oil		> 840	SS 316Ti	1800	MLG, Local Scale in cm
1220-57-LG-0002	Drain Tank Level Gauge	Top Lvl	150# RF	FV / 19	-46 / 93		Crude Oil, Water, Chemicals		> 840	SS 316Ti	1525	MLG, Local Scale in cm
1220-62-LG-0002	Diesel Oil Tank Level Gauge	Top Lvl	150# RF	FV / 19	-7 / 38		Diesel Oil		> 840	SS 316Ti	1800	MLG, Local Scale in cm

KSR KUEBLER Scope of Supply to Offshore Systems

Tag No.	Service Description	Duty	Flanges Pressure Rating	Design (Op.) Pressure [barg]	Design (Op.) Temperature [°C]	Fluid Upper	Fluid Lower	Density Upper Fluid [kg/m³]	Density Lower Fluid [kg/m³]	Chamber Material	C to C	Type / Remarks
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NJORD GAS EXPORT - NORSK HYDRO ASA - VETCO AIBEL AS - 2006

	Gas Dehydrator Level Gauge	Top Lvl	CF 900#	FV / 131 (77.4)	-46 / 60 (25.9)	HC Gas	Liquid TEG	83.76	1122	SS 316L	1600	Bull's Eyes Transparent Glass Level Gauge
	Gas Dehydrator Level Gauge Skimming	Top Lvl	CF 900#	FV / 131 (77.4)	-46 / 60 (25.9)	HC Gas	Liquid TEG	83.76	1122	SS 316L	1000	Bull's Eyes Transparent Glass Level Gauge
	Gas Dehydrator Inlet Scrubber Level Gauge	Top Lvl	CF 900#	FV / 131 (77.6)	-46 / 60 (26)	HC Gas	Mixture of HC Liquid and Water	84.8	576.8	SS 316L	1850	Bull's Eyes Transparent Glass Level Gauge

PETROJARL FOINAVEN FPSO - PGS - McDERMOTT ENGINEERING (EUROPE) LTD. - 2001

	Gas Scrubber Level Indicator and Transmitter	Top Lvl	300# RF	5.5		Hydrocarbon Gas	Water (90%) Condensate (10%)		980 (Water) 787 (Cond.)	SS 316Ti	800	MLG + LT, Hart® Communication, Local Scale in %
	Gas Scrubber Level Transmitter	Top Lvl	300# RF	5.5		Hydrocarbon Gas	Water (90%) Condensate (10%)		980 (Water) 787 (Cond.)	SS 316Ti	800	Chamber with LT only, Hart® Communication

PIRANEMA FPSO TOPSIDE - SEVAN MARINE ASA / PETROBRAS - KANFA AS - 2005

20-LG-0225	1st Stage Separator Level	Top Lvl	150# RF	17.6	70		Oil		775	SS 316Ti	2050	MLG, DNV
20-LG-0275	2nd Stage Separator Level	Top Lvl	150# RF	17.6	70		Oil		785	SS 316Ti	2050	MLG, DNV
20-LG-0325	Test Separator Level	Top Lvl	150# RF	17.6	70		Oil		775	SS 316Ti	2050	MLG, DNV
24-LG-0618	Glycol Contactor A Glycol Level	Top Lvl	1500# RTJ	120	37.5		Glycol		1100	SS 316Ti	1550	MLG, DNV
24-LG-0648	Glycol Contactor B Glycol Level	Top Lvl	1500# RTJ	120	37.5		Glycol		1100	SS 316Ti	1550	MLG, DNV
24-LG-0690	Glycol Reboiler Level	Top Lvl	150# RF	12	204		Glycol		1000	SS 316Ti	1600	MLG, Ceramic Rollers, External Insulation, DNV
24-LG-0669 24-LIT-0669	Glycol Flash Drum Level Control	Top Lvl	150# RF	12	65		Glycol		1090	SS 316Ti	900	MLG + LT, Hart® Communication, DNV
24-LG-0699	Glycol Surge Drum Level	Top Lvl	150# RF	12	200		Glycol		1000	SS 316Ti	1600	MLG, Ceramic Rollers, External Insulation, DNV
26-LG-1802 26-LST-1802	1st Stage Suction Scrubber Level, Train A	Top Lvl	300# RF	30	40		Oil		780	SS 316Ti	1450	MLG + LT, Hart® Communication, DNV
26-LG-1804 26-LIT-1804	1st Stage Suction Scrubber Level Control, Train A	Top Lvl	300# RF	30	40		Oil		780	SS 316Ti	1450	MLG + LT, Hart® Communication, DNV
26-LG-1832 26-LST-1832	2nd Stage Suction Scrubber Level, Train A	Top Lvl	300# RF	40	40		Oil		580	SS 316Ti	1457	MLG + LT, Hart® Communication, DNV
26-LG-1834 26-LIT-1834	2nd Stage Suction Scrubber Level Control, Train A	Top Lvl	300# RF	40	40		Oil		580	SS 316Ti	1450	MLG + LT, Hart® Communication, DNV
26-LG-1862 26-LST-1862	3rd Stage Suction Scrubber Level, Train A	Top Lvl	1500# RTJ	120	40		Oil		580	SS 316Ti	1450	MLG + LT, Hart® Communication, DNV
26-LG-1864 26-LIT-1864	3rd Stage Suction Scrubber Level Control, Train A	Top Lvl	1500# RTJ	120	40		Oil		580	SS 316Ti	1450	MLG + LT, Hart® Communication, DNV
26-LG-2802 26-LST-2802	1st Stage Suction Scrubber Level, Train B	Top Lvl	300# RF	30	40		Oil		780	SS 316Ti	1450	MLG + LT, Hart® Communication, DNV
26-LG-2804 26-LIT-2804	1st Stage Suction Scrubber Level Control, Train B	Top Lvl	300# RF	30	40		Oil		780	SS 316Ti	1450	MLG + LT, Hart® Communication, DNV
26-LG-2832 26-LST-2832	2nd Stage Suction Scrubber Level, Train B	Top Lvl	300# RF	40	40		Oil		580	SS 316Ti	1450	MLG + LT, Hart® Communication, DNV
26-LG-2834 26-LIT-2834	2nd Stage Suction Scrubber Level Control, Train B	Top Lvl	300# RF	40	40		Oil		580	SS 316Ti	1450	MLG + LT, Hart® Communication, DNV

KSR KUEBLER Scope of Supply to Offshore Systems

Tag No.	Service Description	Duty	Flanges Pressure Rating	Design (Op.) Pressure [barg]	Design (Op.) Temperature [°C]	Fluid Upper	Fluid Lower	Density Upper Fluid [kg/m³]	Density Lower Fluid [kg/m³]	Chamber Material	C to C	Type / Remarks
26-LG-2862 26-LST-2862	3rd Stage Suction Scrubber Level, Train B	Top Lvl	1500# RTJ	120	40		Oil		580	SS 316Ti	1450	MLG + LT, Hart® Communication, DNV
26-LG-2864 26-LIT-2864	3rd Stage Suction Scrubber Level Control, Train B	Top Lvl	1500# RTJ	120	40		Oil		580	SS 316Ti	1450	MLG + LT, Hart® Communication, DNV
26-LG-3802 26-LST-3802	1st Stage Suction Scrubber Level, Train C	Top Lvl	300# RF	30	40		Oil		780	SS 316Ti	1450	MLG + LT, Hart® Communication, DNV
26-LG-3804 26-LIT-3804	1st Stage Suction Scrubber Level Control, Train C	Top Lvl	300# RF	30	40		Oil		780	SS 316Ti	1450	MLG + LT, Hart® Communication, DNV
26-LG-3832 26-LST-3832	2nd Stage Suction Scrubber Level, Train C	Top Lvl	300# RF	40	40		Oil		580	SS 316Ti	1450	MLG + LT, Hart® Communication, DNV
26-LG-3834 26-LIT-3834	2nd Stage Suction Scrubber Level Control, Train C	Top Lvl	300# RF	40	40		Oil		580	SS 316Ti	1450	MLG + LT, Hart® Communication, DNV
26-LG-3862 26-LST-3862	3rd Stage Suction Scrubber Level, Train C	Top Lvl	1500# RTJ	120	40		Oil		580	SS 316Ti	1450	MLG + LT, Hart® Communication, DNV
26-LG-3864 26-LIT-3864	3rd Stage Suction Scrubber Level Control, Train C	Top Lvl	1500# RTJ	120	40		Oil		580	SS 316Ti	1450	MLG + LT, Hart® Communication, DNV
40-LG-1010	Cooling Medium Expansion Tank Level	Top Lvl	150# RF	12	40		Water		992	SS 316Ti	1250	MLG, DNV
40-LG-1045	Cooling/Heating Medium Make-Up Tank	Top Lvl	150# RF	3.5	40		Water		992	SS 316Ti	2400	MLG, DNV
41-LG-1135	Heating Medium Expansion Tank Level	Top Lvl	300# RF	20	160		Water		940	SS 316Ti	1100	MLG, External Insulation, DNV
42-LG-1201 42-LT-1201	Chemical Injection Wax Inhibitor Tank Level	Top Lvl	150# RF	16	40		Wax Inhibitor		1000	SS 316Ti	6340	MLG + LT, Hart® Communication, DNV
42-LG-1202 42-LT-1202	Chemical Injection Ethanol Tank Level	Top Lvl	150# RF	16	40		Ethanol		830	SS 316Ti	6340	MLG + LT, Hart® Communication, DNV
42-LG-1203 42-LT-1203	Chemical Injection TEG Tank Level	Top Lvl	150# RF	16	40		TEG		1000	SS 316Ti	800	MLG + LT, Hart® Communication, DNV
42-LG-1204 42-LT-1204	Chemical Injection Oil Defoamer Tank Level	Top Lvl	150# RF	16	40		Oil Defoamer		1000	SS 316Ti	1540	MLG + LT, Hart® Communication, DNV
42-LG-1205 42-LT-1205	Chemical Injection Demulsifer Tank Level	Top Lvl	150# RF	16	40		Demulsifer		920	SS 316Ti	1540	MLG + LT, Hart® Communication, DNV
42-LG-1206 42-LT-1206	Chemical Injection Corrosion Inhibitor Tank Level	Top Lvl	150# RF	16	40		Corrosion Inhibitor		1060	SS 316Ti	1540	MLG + LT, Hart® Communication, DNV
42-LG-1207 42-LT-1207	Chemical Injection Biocide Tank Level	Top Lvl	150# RF	16	40		Biocide		1000	SS 316Ti	1540	MLG + LT, Hart® Communication, DNV
43-LG-1333	Low Point Atmospheric Vent	Top Lvl	150# RF	4	40		HC		900	SS 316Ti	1000	MLG, DNV
43-LG-1335	Low Point Atmospheric Vent	Top Lvl	150# RF	4	40		HC		900	SS 316Ti	1000	MLG, DNV
45-LG-1405 45-LIT-1405	Fuel Gas Scrubber A Level Control	Top Lvl	300# RF	40	40		HC		530	SS 316Ti	600	MLG + LT, Hart® Communication, DNV
45-LG-1406 45-LIT-1406	Fuel Gas Scrubber B Level Control	Top Lvl	300# RF	40	40		HC		530	SS 316Ti	600	MLG + LT, Hart® Communication, DNV
45-LG-1407 45-LST-1407	Fuel Gas Scrubber A Level	Top Lvl	300# RF	40	40		HC		530	SS 316Ti	600	MLG + LT, Hart® Communication, DNV
45-LG-1408 45-LST-1408	Fuel Gas Scrubber B Level	Top Lvl	300# RF	40	40		HC		530	SS 316Ti	600	MLG + LT, Hart® Communication, DNV
45-LG-1454 45-LIT-1454	Fuel Gas Scrubber A Level	Top Lvl	300# RF	40	40		Condensate		530	SS 316Ti	400	MLG + LT, Hart® Communication, DNV
45-LG-1455 45-LIT-1455	Fuel Gas Scrubber B Level	Top Lvl	300# RF	40	40		Condensate		530	SS 316Ti	400	MLG + LT, Hart® Communication, DNV

KSR KUEBLER Scope of Supply to Offshore Systems

Tag No.	Service Description	Duty	Flanges Pressure Rating	Design (Op.) Pressure [barg]	Design (Op.) Temperature [°C]	Fluid Upper	Fluid Lower	Density Upper Fluid [kg/m³]	Density Lower Fluid [kg/m³]	Chamber Material	C to C	Type / Remarks
56-LG-1517 56-LIT-1517	Open Drain Tank Wellhead Level Control	Top Lvl	150# RF	FV / 3.5	40		Drain		1000	SS 316Ti	600	MLG + LT, Hart® Communication, DNV
57-LG-1554 57-LIT-1554	Closed Drain Tank Level Control	Top Lvl	150# RF	FV / 3.5	40		Drain		830	SS 316Ti	1650	MLG + LT, Hart® Communication, DNV
57-LG-1562 57-LIT-1562	Closed Drain Tank Wellhead Level Control	Top Lvl	150# RF	FV / 3.5	40		Drain		830	SS 316Ti	600	MLG + LT, Hart® Communication, DNV
62-LG-1600 62-LIT-1600	Storage Tank Diesel, Water, SGN	Top Lvl	150# RF	FV / 3.5	40		Mix		> 680	SS 316Ti	1550	MLG + LT, Hart® Communication, DNV

RINGHORNE PLATFORM PROJECT - ESSO NORGE AS - ABB OFFSHORE SYSTEMS AS - 2001

	Mud Pit Storage Vessel Level Transmitter	Top Lvl	150# RF	Atm.	Amb.		Mud (with Heavy Oil)		800 - 2500	SS 316Ti	3700	10 Identical Units, Top mounted LT, 200 mm Float (Customer: Hyptech)
	Mud Pit Storage Vessel Level Transmitter	Top Lvl	150# RF	Atm.	Amb.		Mud (with Heavy Oil)		800 - 2500	SS 316Ti	2475	4 Identical Units, Top mounted LT, 200 mm Float (Customer: Hyptech)
12LT1019	Oil Based Mud Tank Level Transmitter	Top Lvl	150# RF	FV / Atm.	-15 / 51		Oil Based Mud		1680	SS 316Ti	4810	Top mounted LT, 200 mm Float, Hart®, Local Display, (Customer: Hyptech)
12LT1020	Oil Based Mud Tank Level Transmitter	Top Lvl	150# RF	FV / Atm.	-15 / 51		Oil Based Mud		1680	SS 316Ti	4810	Top mounted LT, 200 mm Float, Hart®, Local Display, (Customer: Hyptech)
12LI2043	Level Gauge for Drilling Package	Top Lvl	PN160	150	100				800	SS 316Ti	750	MLG (Customer: Grootint B.V.)
12LI2044	Level Gauge for Drilling Package	Top Lvl	PN160	150	100				800	SS 316Ti	1000	MLG (Customer: Grootint B.V.)
13LT1058	Brine Tank Level Transmitter	Top Lvl	150# RF	FV / Atm.	-15 / 51		Brine		1100	Titanium/SS 316Ti	7525	Top mounted LT, Hart®, Local Display (Customer: Hyptech)
13LT1102	Base Oil Tank Level Transmitter	Top Lvl	150# RF	FV / Atm.	-15 / 51		Base Oil		840	SS 316Ti	2125	Top mounted LT, Hart®, Local Display (Customer: Hyptech)
13LT1104	Base Oil Tank Level Transmitter	Top Lvl	150# RF	FV / Atm.	-15 / 51		Base Oil		840	SS 316Ti	2125	Top mounted LT, Hart®, Local Display (Customer: Hyptech)
42LG1600/ 42LT1625	Chemical Injection - Antifoam Storage Vessel Level Gauge and Level Transmitter	Top Lvl	150# RF	150 lbs	-8 / 23		Antifoam		870	SS 316L	2150	MLG + LT, Hart® Communication, PMI
42LG1601/ 42LT1626	Chemical Injection - Demulsifer Storage Vessel Level Gauge and Level Transmitter	Top Lvl	150# RF	150 lbs	-8 / 23		Demulsifer		885 - 895	SS 316L	2150	MLG + LT, Hart® Communication, PMI
42LG1602/ 42LT1627	Chemical Injection - Corrosion Inhibitor Storage Vessel Level Gauge and Level Transmitter	Top Lvl	150# RF	150 lbs	-8 / 23		Corrosion Inhibitor (Gas)		880	SS 316L	2150	MLG + LT, Hart® Communication, PMI
42LG1603/ 42LT1628	Chemical Injection - Biocide Storage Vessel Level Gauge and Level Transmitter	Top Lvl	150# RF	150 lbs	-8 / 23		Biocide		1050	SS 316L	2150	MLG + LT, Hart® Communication, PMI
42LG1604/ 42LT1629	Chemical Injection - Scale Inhibitor Storage Vessel Level Gauge and Level Transmitter	Top Lvl	150# RF	150 lbs	-8 / 23		Scale Inhibitor		1160	SS 316L	2150	MLG + LT, Hart® Communication, PMI
42LG1605/ 42LT1630	Chemical Injection - Corrosion Inhibitor Storage Vessel Level Gauge and Level Transmitter	Top Lvl	150# RF	150 lbs	-8 / 23		Corrosion Inhibitor (Oil)		1060	SS 316L	2150	MLG + LT, Hart® Communication, PMI
42LG1606/ 42LT1631	Chemical Injection - Wax Inhibitor Storage Vessel Level Gauge and Level Transmitter	Top Lvl	150# RF	150 lbs	-8 / 23		Wax Inhibitor		880	SS 316L	2150	MLG + LT, Hart® Communication, PMI
42LG1504/ 42LIT1500	Methanol Injection Storage Vessel Level Gauge and Level Transmitter	Top Lvl	150# RF	150 lbs	-15 / 50		Methanol		800	SS 316L	5000	MLG + LT, Hart® Communication, PMI
56LT1042	Drilling Haz. Open Drain Tank	Top Lvl	150# RF	FV / Atm.	-15 / 51		Oil / Water / Mud Mixture		1600	Titanium/SS 316Ti	3640	Top mounted LT, 200 mm Float, Hart®, Local Display, (Customer: Hyptech)
56LT1044	Drilling Haz. Open Drain Tank	Top Lvl	150# RF	FV / Atm.	-15 / 51		Oil / Water / Mud Mixture		1600	Titanium/SS 316Ti	3640	Top mounted LT, 200 mm Float, Hart®, Local Display, (Customer: Hyptech)
56LT1060	Drilling Non-Haz. Open Drain Tank	Top Lvl	150# RF	FV / Atm.	-15 / 51		Oil / Water / Mud Mixture		1200	Titanium/SS 316Ti	2590	Top mounted LT, 200 mm Float, Hart®, Local Display, (Customer: Hyptech)

SABLE FPSO - SOEKOR EXPLORATION & PRODUCTION (PTY.) LTD. - BLUEWATER ENERGY SERVICES B.V. - 2002

KSR KUEBLER Scope of Supply to Offshore Systems

Tag No.	Service Description	Duty	Flanges Pressure Rating	Design (Op.) Pressure [barg]	Design (Op.) Temperature [°C]	Fluid Upper	Fluid Lower	Density Upper Fluid [kg/m³]	Density Lower Fluid [kg/m³]	Chamber Material	C to C	Type / Remarks
GD05-525-LG-024	Level Gauge	Top Lvl	600# RF	70	-10 / 100		Hydrocarbon Liquid		558.6	SS 316Ti	2400	MLG
GD05-505-LG-135/1	Level Gauge	Top Lvl	300# RF	10	-10 / 80		Fresh Water		994	SS 316L	1600	MLG
GD05-505-LG-135/2	Level Gauge	Top Lvl	300# RF	10	-10 / 80		Fresh Water		994	SS 316L	1600	MLG
GD05-525-LG-060/1	Level Gauge	Top Lvl	600# RF	70	-10 / 70		Hydrocarbon Liquid		418	SS 316Ti	2000	MLG
GD05-525-LG-060/2	Level Gauge	Top Lvl	600# RF	70	-10 / 70		Hydrocarbon Liquid		418	SS 316Ti	1700	MLG
GD05-505-LG-273	Level Gauge	Top Lvl	300# RF	FV / 15	-10 / 120		Hydrocarbon Liquid		760	SS 316L	2200	MLG
GD05-505-LG-274	Level Gauge	Top Lvl	300# RF	FV / 15	-10 / 120		Hydrocarbon Liquid		760	SS 316L	1600	MLG
GD05-505-LG-158	Level Gauge	Top Lvl	300# RF	FV / 15	-10 / 120		Hydrocarbon Liquid		760	SS 316L	1600	MLG
GD05-505-LG-159	Level Gauge	Top Lvl	300# RF	FV / 15	-10 / 120		Hydrocarbon Liquid		760	SS 316L	1600	MLG
GD05-550-LG-061	Level Gauge	Top Lvl	300# RF	16.7	-10 / 120		Hydrocarbon Liquid		700	SS 316L	2000	MLG
GD05-550-LG-064	Level Gauge	Top Lvl	300# RF	16.7	-10 / 120		Hydrocarbon Liquid		700	SS 316L	1000	MLG

SIRI MODIFICATIONS - DONG - 2003

24-LG0003	Level Gauge	Top Lvl	600# RF	50	60		Condensate		500	SS 316Ti	1280	MLG
24-LIT0007	Level Gauge and Transmitter	Top Lvl	600# RF	50	60	Hydrocarbon Gas	Glycol + Condensate	50	1083	SS 316Ti	1500	MLG + LT
24-LIT0010	Level Gauge and Transmitter	Top Lvl	600# RF	50	60	Hydrocarbon Gas	Glycol + Condensate	50	486	SS 316Ti	1500	MLG + LT
24-LG0110	Level Gauge	Top Lvl	150# RF	10	204		Glycol		970	Titanium	1400	MLG, High Temp. Ceramic Rollers
24-LG0115	Level Gauge	Top Lvl	150# RF	10	204		Glycol		970	Titanium	1350	MLG, High Temp. Ceramic Rollers
24-LG0204	Level Gauge	Intf. Lvl	150# RF	16	60	Condensate	Rich TEG	500	1070	SS 316Ti	770	MLG
24-LT0304	Level Gauge and Transmitter	Top Lvl	150# RF	16	50		Condensate		1070	SS 316Ti	1750	MLG + LT
24-LG0305	Level Gauge	Top Lvl	150# RF	16	60		Condensate/Glycol		500 to 600	SS 316Ti	795	MLG
24-LG0508	Level Gauge	Top Lvl	150# RF	16	50		Condensed Water		1000	SS 316Ti	1200	MLG

SNORRE B - NORSK HYDRO ASA - KVÆRNER OIL & GAS A.S - 2000

23B-LIT 4005	1st Stage Recompr. Suction Scrubber Liquid Level Control	Top Lvl	150# RF	FV / 14.5	-8 / 130	Hydrocarbon Gas	Condensate	4.33	705.8	SS 316L	1280	MLG + LT, Hart® Communication
23B-LIT 4017	2nd Stage Recompr. Suction Scrubber Liquid Level Control	Top Lvl	300# RF	FV / 16.5	-8 / 130	Hydrocarbon Gas	Condensate	12.6	595	SS 316L	2850	MLG + LT, Hart® Communication
24A-LIT 0003	Glycol Contactor Oil Level Control	Top Lvl	600# RTJ	FV / 50.5	-8 / 155	Hydrocarbons Gas	Liquid	38.3	545.2	SS 316L	1286	MLG + LT, Hart® Communication
24A-LIT 0004	Glycol Contactor TEG Level Control	Top Lvl	600# RTJ	FV / 50.5	-8 / 155	Hydrocarbons Gas	TEG (Triethylene Glycol)	38.3	1079	SS 316L	1850	MLG + LT, Hart® Communication

KSR KUEBLER Scope of Supply to Offshore Systems

Tag No.	Service Description	Duty	Flanges Pressure Rating	Design (Op.) Pressure [barg]	Design (Op.) Temperature [°C]	Fluid Upper	Fluid Lower	Density Upper Fluid [kg/m³]	Density Lower Fluid [kg/m³]	Chamber Material	C to C	Type / Remarks
24B-LIT 0004	Glycol Contactor Inlet Scrubber Level Control	Top Lvl	600# RTJ	FV / 50.5	-8 / 155	Hydrocarbons Gas	Liquid	38.5	545.2	SS 316L	3100	MLG + LT, Hart® Communication
26B-LSIT 4001	1st Stage Reinjection Compressor Suction Scrubber Liquid Level Trip	Top Lvl	600# RTJ	FV / 50.5	-8 / 155	Hydrocarbon Gas	TEG, Water	38.3	1000	SS 316L	1080	MLG + LT, Hart® Communication
26B-LIT 4003	1st Stage Reinjection Compressor Suction Scrubber Liquid Level Control	Top Lvl	600# RTJ	FV / 50.5	-8 / 155	Hydrocarbon Gas	TEG, Water	38.3	1000	SS 316L	1080	MLG + LT, Hart® Communication
26B-LSIT 4009	2nd Stage Reinjection Compressor Suction Scrubber Liquid Level Trip	Top Lvl	1500# TECHLOK	FV / 199	-46 / 185	Hydrocarbon Gas	Condensate	206.9	700	SS 316L	1080	MLG + LT, Hart® Communication
26B-LIT 4011	2nd Stage Reinjection Compressor Suction Scrubber Liquid Level Control	Top Lvl	1500# TECHLOK	FV / 199	-46 / 185	Hydrocarbon Gas	Condensate, Water	206.9	700	SS 316L	1080	MLG + LT, Hart® Communication
40A-LSIT 0006	Cooling Medium Expansion Vessel Level Trip	Top Lvl	150# RF	FV / 16	-8 / 80	Inert Gas	35% TEG 65% Water	4.5	1053	SS 316L	1060	MLG + LT, Hart® Communication
43A-LSIT 0007	High Pressure Flare Knock Out Drum Level Transmitter	Top Lvl	150# RF	FV / 9	-90 / 115	Hydrocarbon Gas	Hydrocarbon Liquid	1.9 - 3.7	875 - 872	Titanium	3500	MLG + LT, Hart® Communication
45A-LIT 0006	Fuel Gas Scrubber Level Control	Top Lvl	300# RF	FV / 48.3	-8 / 155	Hydrocarbon Gas	Liquid	44.5 - 32.3	950	Titanium	950	MLG + LT, Hart® Communication
51C-LIT 0008	Water Injection Deaerator Level Trip	Top Lvl	150# RF	FV / 14	-8 / 65	Vacuum	Seawater	0.014	1022	Titanium	4250	MLG + LT, Hart® Communication
55B-LIT 4002	Crude Oil Heater Condensate Return Tank Level Control	Top Lvl	150# RF	FV / 13.5	-8 / 220		LP Steam Condensate (Clean Water)	0.6	958	Titanium	1200	MLG + LT, Hart® Communication, High Temp. Ceramic Rollers
55B-LI 4017	Crude Heater Level	Top Lvl	150# RF	FV / 13.5	-8 / 220		LP Steam Condensate (Clean Water)	0.6	1000	Titanium	1560	MLG, High Temp. Ceramic Rollers
24C-LG 0110	Level Gauge on Reboiler	Top Lvl	150# RF	FV / 11.7	-8 / 235	Hydrocarbon Gas	99 wt% TEG with Water and HC	1.0	970	Titanium	1800	MLG, High Temp. Ceramic Rollers
24C-LIT 0114	Level Control Transmitter and Gauge for Flash Drum	Top Lvl	150# RF	FV / 11.7	-8 / 100	Hydrocarbon Gas	TEG with Liquid Layer	6.0	1065	SS 316L	1410	MLG + LT, Hart® Communication
24C-LG 0118	Level Gauge on Surge Drum	Top Lvl	150# RF	FV / 11.7	-8 / 235	Hydrocarbon Gas	99 wt% TEG with Water and HC	1.0	970	Titanium	1760	MLG, High Temp. Ceramic Rollers
24C-LIT 0133	Level Transmitter and Gauge for Liquid / Liquid Coalescer	Intf. Lvl	150# RF	FV / 11.7	-8 / 90	Hydrocarbons	TEG	600	600 / 1065	SS 316L	705	MLG + LT, Hart® Communication
24C-LG 0134	Level Gauge on Flash Drum Condensate Box	Top Lvl	150# RF	FV / 11.7	-8 / 100	Hydrocarbon Gas	Condensate	6.0	600	SS 316L	1250	MLG
24C-LIT 0162	Level Transmitter and Gauge for Aquastripper Overhead Drum	Top Lvl	150# RF	FV / 11.7	-8 / 88	Hydrocarbon + Water Vapor	Hydrocarbon + Water Liquid	1.6	822	SS 316L	880	MLG + LT, Hart® Communication
26A-LIT 1180	Lub Oil Storage Tank Level Transmitter and Gauge	Top Lvl	150# RF	1.0	65		ISO VG 32		839 - 874	SS 316L	1054	MLG + LT, Hart® Communication
71A-LG 1048	Level Gauge on Diesel Storage Tank	Top Lvl	300# RF	1.0	-8 / 23		Diesel		850	SS 316L	3844	MLG
71A-LG 1148	Level Gauge on Diesel Storage Tank	Top Lvl	300# RF	1.0	-8 / 23		Diesel		850	SS 316L	3844	MLG
71A-LG 1248	Level Gauge on Diesel Storage Tank	Top Lvl	300# RF	1.0	-8 / 23		Diesel		850	SS 316L	3844	MLG
71A-LG 1348	Level Gauge on Diesel Storage Tank	Top Lvl	300# RF	1.0	-8 / 23		Diesel		850	SS 316L	3844	MLG
84B-LG 1048	Level Gauge on Diesel Storage Tank	Top Lvl	300# RF	1.0	-8 / 23		Diesel		850	SS 316L	1600	MLG

SNORRE TLP MODIFICATIONS - STATOIL ASA - 2003

20C-LG 817	2nd Stage Separator Water / Condensate Interface Level Gauge	Intf. Lvl	150# RF	20	200	Condensate	Produced Water			6Mo	1628	Transparent Glass LG, Backlight illuminator, Scale, Gate Valves for Process, Vent & Drain
20C-LG 818	2nd Stage Separator Condensate Level Gauge	Top Lvl	150# RF	20	200	Hydrocarbon Gas	Condensate			6Mo	1300	Transparent Glass LG, Backlight illuminator, Scale, Gate Valves for Process, Vent & Drain

KSR KUEBLER Scope of Supply to Offshore Systems

Tag No.	Service Description	Duty	Flanges Pressure Rating	Design (Op.) Pressure [barg]	Design (Op.) Temperature [°C]	Fluid Upper	Fluid Lower	Density Upper Fluid [kg/m³]	Density Lower Fluid [kg/m³]	Chamber Material	C to C	Type / Remarks
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STATFJORD LATE LIFE - STATOIL ASA - AKER KVAERNER OFFSHORE PARTNER AS - 2006

LG56548	Magnetic Level Gauge	Top Lvl	300# RF	20	60	Air	Water		995-1020	SS 316L	1200	MLG, Reducing Branch Tees
LG56835	Magnetic Level Gauge	Top Lvl	300# RF	20	60	Air	Water		995-1020	SS 316L	1200	MLG, Reducing Branch Tees
LXG56835	Magnetic Level Gauge	Intf. Lvl	300# RF	28.2	-8 / 121	Crude Oil	Water	828	1000	SS 316L Painted	1200	MLG, Reducing Branch Tees, External Protective Coating

SUDDEN CLASSIC DRILLING PLATFORM A - SARAWAK SHELL BERHAË (SSB) - GEVEKE WERKTUIGBOUW B.V. - 2007

LG-6800	Tank Level Indication	Top Lvl	150# RF	15	60		Inhibiter		870-900	SS 316Ti	2300	MLG
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ULA GAS UPGRADE - BP NORWAY - AKER KVAERNER OFFSHORE PARTNER AS - 2006

LG-30016	HP Scrubber Water/Condensate Interface Level Gauge	Intf. Lvl	300# RF	FV / 31 (25)	-25 / 120 (20.15)	Condensate	Water	630.5	1012	SS 316L Painted	1095	Transparent Glass LG, LED Backlight illuminator, Graduated Scale
LG/LT/LI-30019	HP Scrubber Condensate/Gas Interface Level Gauge and Transmitter	Top Lvl	300# RF	FV / 31 (25)	-25 / 120 (20.15)	Gas	Condensate	26.7	630	SS 316L Painted	800	Dual Chamber MLG c/w Guided Wave Radar LT & Remote Display, Hart® Communication, Scale
LG-30041	HP Suction Drum Level Gauge	Top Lvl	300# RF	FV / 44.5 (24.2)	-25 / 120 (19.7)	Gas	HC Liquid	25.7	634.1	SS 316L Painted	800	Transparent Glass LG, LED Backlight illuminator, Graduated Scale
LG-30072	1st Stage Suction Scrubber Level Gauge	Top Lvl	900# RTJ	FV / 120 (67.4)	-46 / 120 (12)	Gas	HC Liquid	85.8	471.6	SS 316L Painted	950	MLG, Graduated Scale, Float Downrated 80 barg
LG/LIT-30092	2nd Stage Suction Scrubber Level Gauge and Transmitter	Top Lvl	2500# RTJ	FV / 259 (194.5)	-46 / 120 (30)	Gas	Aqueous	241.6	865.6	SS 316L Painted	850	MLG c/w LT, Integral LCD Display, Hart® Communication, Graduated Scale
LG/LT/LI-30138	Low Temp Flare Knockout Drum Level Gauge and Process Shutdown (PSD)	Top Lvl	150# RF	FV / 13 (5.0)	-101 / 120 (19.5)	Gas	HC Liquid	6	1015	6Mo Painted	1000	Dual Chamber MLG c/w Guided Wave Radar LT & Remote Display, Hart® Communication, Scale

ULA GAS UPGRADE, DEHYDRATION PACKAGE - BP NORWAY - FRAMES PROCESS SYSTEMS B.V. - 2006

LIT-30221	Glycol Contactor D-0143 Level Transmitter (Total Level)	Top Lvl	300# RF	FV / 31 (14.5-25.5)	-25 / 142 (20.2)	HC Gas	Condensate			SS 316L Painted	1120	Guided Wave Radar LT, Integral LCD Display, Hart® Communication, Coaxial Probe
LIT-30227	Glycol Contactor D-0143 Level Transmitter (Interface Level)	Intf. Lvl	300# RF	FV / 31 (14.5-25.5)	-25 / 142 (20.2)	Condensate	Glycol			SS 316L Painted	1120	Guided Wave Radar LT, Integral LCD Display, Hart® Communication, Coaxial Probe
LG-30228	Glycol Contactor D-0143 Level Gauge (Total & Interface Level)	Intf. & Top Lvl	300# RF	FV / 31 (14.5-25.5)	-25 / 142 (20.2)	HC Gas / Condensate	Glycol			SS 316L Painted	550 + 400	Transparent Glass LG with 3 Process Connections, LED Backlight illuminator, Left View
LG-30232	Glycol Reboiler D-0144 Level Gauge	Top Lvl	150# RF	FV / 8 (ATM-0.1)	-10 / 230 (204)	HC Gas	Glycol			SS 316L Painted	1680	Transparent Glass LG, LED Backlight illuminator
LIT-30234	Glycol Reboiler D-0144 Level Transmitter	Top Lvl	150# RF	FV / 8 (ATM-0.1)	-10 / 230 (204)	HC Gas	Glycol			SS 316L Painted	1390	Guided Wave Radar LT, Integral LCD Display, Hart® Communication, Coaxial Probe
LIT-30252	Glycol Surge Vessel D-0145 Level Transmitter	Top Lvl	150# RF	FV / 8 (ATM-0.1)	-10 / 230 (98)	HC Gas	Glycol			SS 316L Painted	1360	Guided Wave Radar LT, Integral LCD Display, Hart® Communication, Coaxial Probe
LIT-30253	Glycol Surge Vessel D-0145 Level Transmitter	Top Lvl	150# RF	FV / 8 (ATM-0.1)	-10 / 230 (98)	HC Gas	Glycol			SS 316L Painted	1360	Guided Wave Radar LT, Integral LCD Display, Hart® Communication, Coaxial Probe
LG-30265	Glycol Surge Vessel D-0145 Level Gauge	Top Lvl	150# RF	FV / 8 (ATM-0.1)	-10 / 230 (98)	HC Gas	Glycol			SS 316L Painted	1620	Transparent Glass LG, LED Backlight illuminator
LIT-30200	Glycol Flash Vessel D-0146 Level Transmitter (Interface Level)	Intf. Lvl	150# RF	FV / 8 (4-5)	-10 / 142 (60)	Condensate	Glycol			SS 316L Painted	910	Guided Wave Radar LT, Integral LCD Display, Hart® Communication, Coaxial Probe
LIT-30266	Glycol Flash Vessel D-0146 Level Transmitter (Interface Level)	Intf. Lvl	150# RF	FV / 8 (4-5)	-10 / 142 (60)	Condensate	Glycol			SS 316L Painted	910	Guided Wave Radar LT, Integral LCD Display, Hart® Communication, Coaxial Probe
LIT-30267	Glycol Flash Vessel D-0146 Level Transmitter (Total Level)	Top Lvl	150# RF	FV / 8 (4-5)	-10 / 142 (60)	HC Gas	Condensate			SS 316L Painted	910	Guided Wave Radar LT, Integral LCD Display, Hart® Communication, Coaxial Probe
LG-30269	Glycol Flash Vessel D-0146 Level Gauge (Total & Interface Level)	Intf. & Top Lvl	150# RF	FV / 8 (4-5)	-10 / 142 (60)	HC Gas / Condensate	Glycol			SS 316L Painted	585 + 585	Transparent Glass LG with 3 Process Connections, LED Backlight illuminator, Left View

KSR KUEBLER Scope of Supply to Offshore Systems

Tag No.	Service Description	Duty	Flanges Pressure Rating	Design (Op.) Pressure [barg]	Design (Op.) Temperature [°C]	Fluid Upper	Fluid Lower	Density Upper Fluid [kg/m³]	Density Lower Fluid [kg/m³]	Chamber Material	C to C	Type / Remarks
LG-30270	Glycol Flash Vessel D-0146 Level Gauge (Total Level)	Top Lvl	150# RF	FV / 8 (4-5)	-10 / 142 (60)	HC Gas	Condensate			SS 316L Painted	1170	Transparent Glass LG, LED Backlight illuminator, Right View
LIT-30278	Off Gas Separator D-0147 Level Transmitter	Top Lvl	150# RF	FV / 8 (ATM-0.1)	-10 / 160 (60)	HC Gas	Condensate			SS 316L Painted	1450	Guided Wave Radar LT, Integral LCD Display, Hart® Communication, Coaxial Probe
LG-30279	Off Gas Separator D-0147 Level Gauge	Top Lvl	150# RF	FV / 8 (ATM-0.1)	-10 / 160 (60)	HC Gas	Condensate			SS 316L Painted	550	Transparent Glass LG, LED Backlight illuminator
LIT-30280	Off Gas Separator D-0147 Level Transmitter	Top Lvl	150# RF	FV / 8 (ATM-0.1)	-10 / 160 (60)	HC Gas	Condensate			SS 316L Painted	1450	Guided Wave Radar LT, Integral LCD Display, Hart® Communication, Coaxial Probe

ULA MODIFICATIONS / BLANE TIE BACK - BP NORWAY - AKER KVAERNER OFFSHORE PARTNER AS - 2006

LG-20017	Blane Separator Oil/Water Interface Level	Intf. Lvl	300# RF	FV / 35	-20 / 142	Oil	Water	24.8	750	6Mo	1450	Transparent Glass LG, LED Backlight illuminator
LG-20033	Blane Separator Gas/Oil Interface Level	Top Lvl	300# RF	FV / 35	-20 / 142	Gas	Oil	24.8	750	6Mo	2000	MLG, Equal Tee Design

VALHALL WATER INJECTION - BP AMOCO - AKER STORD - 2001

42-LG-80632 42-LT-80632	Fuel Gas Scrubber	Top Lvl	300# RF	43	-40 / 110	Hydrocarbon Gas	Hydrocarbon Condensate	29.1	600	6Mo	1028	MLG + LT, Hart® Communication
80-LG-80835	Interceptor A	Top Lvl	150# RF	17.9	-7 / 95	Hydrocarbon + Water Vapour	PW With Thin Oil Layer	2.2 - 2.9	1000 - 1045	6Mo	4716	MLG
80-LG-80845	Interceptor B	Top Lvl	150# RF	17.9	-7 / 95	Hydrocarbon + Water Vapour	PW With Thin Oil Layer	2.2 - 2.9	1000 - 1045	6Mo	3646	MLG
80-LG-80855	Interceptor C	Top Lvl	150# RF	17.9	-7 / 95	Hydrocarbon + Water Vapour	PW With Thin Oil Layer	2.2 - 2.9	1000 - 1045	6Mo	4716	MLG
80-LG-80865	Interceptor D	Top Lvl	150# RF	17.9	-7 / 95	Hydrocarbon + Water Vapour	PW With Thin Oil Layer	2.2 - 2.9	1000 - 1045	6Mo	3646	MLG

VINCENT FPSO TOPSIDES PROJECT - WOODSIDE ENERGY LTD. - AIBEL AS - 2007

33-LG-3111A	HP Separator A, Oil/Water Interface	Intf. Lvl	300# RF	FV / 22 (11)	0 / 100 (70)	Crude Oil	Produced Water	907	972.7	SS 316L Painted	2300	MLG, Blue & Red Rollers
33-LG-3111B	HP Separator B, Oil/Water Interface	Intf. Lvl	300# RF	FV / 22 (11)	0 / 100 (70)	Crude Oil	Produced Water	907	972.7	SS 316L Painted	2300	MLG, Blue & Red Rollers
33-LG-3113A	HP Separator A, Oil Level	Top Lvl	300# RF	FV / 22 (11)	0 / 100 (70)	Gases	Crude Oil	4.6	907	SS 316L Painted	3800	MLG
33-LG-3113B	HP Separator B, Oil Level	Top Lvl	300# RF	FV / 22 (11)	0 / 100 (70)	Gases	Crude Oil	4.6	907	SS 316L Painted	3800	MLG
33-LG-3313	LP Separator/Degasser, Oil/Water Interface Level	Intf. Lvl	150# RF	FV / 10 (0.6-2.5)	0 / 130 (70-94)	Crude Oil	Produced Water	907	983	SS 316L Painted	3950	MLG, Blue & Red Rollers
33-LG-3337	LP Separator/Degasser, Oil Level	Top Lvl	150# RF	FV / 10 (0.6-2.5)	0 / 130 (70-94)	Gases	Crude Oil	1.8	907	SS 316L Painted	3950	MLG
33-LG-3509	Electrostatic Coalescer, Oil/Water Interface	Intf. Lvl	150# RF	FV / 10 (3)	0 / 130 (95)	Crude Oil	Water	890.6	952	SS 316L Painted	4400	MLG, Blue & Red Rollers
36-LG-3102A 36-LT-3100A	1st Stage HP Compressor Suction Scrubber A	Top Lvl	300# RF	FV / 24 (6.4)	-15 / 180 (50)	Hydrocarbon Gas	Hydrocarbon Liquid	4.92	806.6	SS 316L	1120	Dual Chamber MLG c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication
36-LG-3102B 36-LT-3100B	1st Stage HP Compressor Suction Scrubber B	Top Lvl	300# RF	FV / 24 (6.4)	-15 / 180 (50)	Hydrocarbon Gas	Hydrocarbon Liquid	4.92	806.6	SS 316L	1120	Dual Chamber MLG c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication
36-LT-3101A	1st Stage HP Compressor Suction Scrubber A	Top Lvl	300# RF	FV / 24 (6.4)	-15 / 180 (50)	Hydrocarbon Gas	Hydrocarbon Liquid	4.92	806.6	SS 316L	1120	External Chamber c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication
36-LT-3101B	1st Stage HP Compressor Suction Scrubber B	Top Lvl	300# RF	FV / 24 (6.4)	-15 / 180 (50)	Hydrocarbon Gas	Hydrocarbon Liquid	4.92	806.6	SS 316L	1120	External Chamber c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication
36-LG-3802A 36-LT-3800A	2nd Stage HP Compressor Suction Scrubber A	Top Lvl	300# RF	FV / 34 (17.8)	-15 / 180 (50)	Hydrocarbon Gas	Hydrocarbon Liquid	12.83	773.6	SS 316L	1120	Dual Chamber MLG c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication

KSR KUEBLER Scope of Supply to Offshore Systems

Tag No.	Service Description	Duty	Flanges Pressure Rating	Design (Op.) Pressure [barg]	Design (Op.) Temperature [°C]	Fluid Upper	Fluid Lower	Density Upper Fluid [kg/m³]	Density Lower Fluid [kg/m³]	Chamber Material	C to C	Type / Remarks
36-LG-3802B 36-LT-3800B	2nd Stage HP Compressor Suction Scrubber B	Top Lvl	300# RF	FV / 34 (17.8)	-15 / 180 (50)	Hydrocarbon Gas	Hydrocarbon Liquid	12.83	773.6	SS 316L	1120	Dual Chamber MLG c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication
36-LT-3801A	2nd Stage HP Compressor Suction Scrubber A	Top Lvl	300# RF	FV / 34 (17.8)	-15 / 180 (50)	Hydrocarbon Gas	Hydrocarbon Liquid	12.83	773.6	SS 316L	1120	External Chamber c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication
36-LT-3801B	2nd Stage HP Compressor Suction Scrubber B	Top Lvl	300# RF	FV / 34 (17.8)	-15 / 180 (50)	Hydrocarbon Gas	Hydrocarbon Liquid	12.83	773.6	SS 316L	1120	External Chamber c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication
36-LG-3952 36-LT-3950	Glycol Contactor Inlet Scrubber	Top Lvl	600# RTJ	FV / 64 (49.4)	-29 / 150 (45)	Hydrocarbon Gas	Hydrocarbon Liquid	36.4	740.9	SS 316L	1050	Dual Chamber MLG c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication
36-LT-3951	Glycol Contactor Inlet Scrubber	Top Lvl	600# RTJ	FV / 64 (49.4)	-29 / 150 (45)	Hydrocarbon Gas	Hydrocarbon Liquid	36.4	740.9	SS 316L	1050	External Chamber c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication
36-LG-4102A 36-LT-4100A	3rd Stage HP Compressor Suction Scrubber A	Top Lvl	900# RTJ	FV / 100 (48.4)	-46 / 150 (45)	Hydrocarbon Gas	Hydrocarbon Liquid	35.3	741.8	SS 316L	1050	Dual Chamber MLG c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication
36-LG-4102B 36-LT-4100B	3rd Stage HP Compressor Suction Scrubber B	Top Lvl	900# RTJ	FV / 100 (48.4)	-46 / 150 (45)	Hydrocarbon Gas	Hydrocarbon Liquid	35.3	741.8	SS 316L	1050	Dual Chamber MLG c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication
36-LT-4101A	3rd Stage HP Compressor Suction Scrubber A	Top Lvl	900# RTJ	FV / 100 (48.4)	-46 / 150 (45)	Hydrocarbon Gas	Hydrocarbon Liquid	35.3	741.8	SS 316L	1050	External Chamber c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication
36-LT-4101B	3rd Stage HP Compressor Suction Scrubber B	Top Lvl	900# RTJ	FV / 100 (48.4)	-46 / 150 (45)	Hydrocarbon Gas	Hydrocarbon Liquid	35.3	741.8	SS 316L	1050	External Chamber c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication
39-LG-3415 39-LT-3400	Glycol Contactor	Top Lvl	600# RTJ	FV / 64 (49.4)	-29 / 75 (45)	Process Gas	TEG	35.6	1112	SS 316L	2000	Dual Chamber MLG c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication
39-LT-3402	Glycol Contactor	Top Lvl	600# RTJ	FV / 64 (49.4)	-29 / 75 (45)	Process Gas	TEG	35.6	1112	SS 316L	2000	External Chamber c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication
39-LG-3401 39-LT-3413	Glycol Contactor	Top Lvl	600# RTJ	FV / 64 (49.1)	-29 / 75 (45)	Process Gas	Process Condensate	35.6	741.5	SS 316L	800	Dual Chamber MLG c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication
43-LG-3100 43-LT-3103	Fuel Gas Scrubber	Top Lvl	300# RF	FV / 34.5 (17.8)	-29 / 100 (38)	Hydrocarbon Gas	Hydrocarbon Liquid	31	756.3	SS 316L	1020	Dual Chamber MLG c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication
43-LT-3105	Fuel Gas Scrubber	Top Lvl	300# RF	FV / 34.5 (17.8)	-29 / 100 (38)	Hydrocarbon Gas	Hydrocarbon Liquid	31	756.3	SS 316L	1020	External Chamber c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication
45-LG-5100	H2S Scavenger Storage Tank	Top Lvl	150# RF	0.07 (ATM)	60 (AMB)		H2S Scavenger		997	SS 316L	3152	MLG
45-LG-5101	Crude Anti-Foam Storage Tank	Top Lvl	150# RF	0.07 (ATM)	60 (AMB)		Crude Anti-Foam		997	SS 316L	3152	MLG
45-LG-5102	Demulsifier Storage Tank	Top Lvl	150# RF	0.07 (ATM)	60 (AMB)		Demulsifier		997	SS 316L	3152	MLG
45-LG-5103	Reverse Demulsifier Storage Tank	Top Lvl	150# RF	0.07 (ATM)	60 (AMB)		Reverse Demulsifier		997	SS 316L	3152	MLG
45-LG-5104	Scale Inhibitor Storage Tank	Top Lvl	150# RF	0.07 (ATM)	60 (AMB)		Scale Inhibitor		997	SS 316L	3152	MLG
45-LG-5105	TEG Anti-Foam Storage Tank	Top Lvl	150# RF	0.07 (ATM)	60 (AMB)		TEG Anti-Foam		997	SS 316L	3152	MLG
45-LG-5106	TEG pH Control Storage Tank	Top Lvl	150# RF	0.07 (ATM)	60 (AMB)		TEG pH Control		997	SS 316L	3152	MLG
45-LG-5501 45-LT-5503	Methanol Storage Tank	Top Lvl	150# RF	FV / 7 (0.2)	130 (17-31)	Nitrogen Gas	Methanol	1.33-1.4	779.8-794.3	SS 316L	3072	Dual Chamber MLG c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication
45-LT-5502	Methanol Storage Tank	Top Lvl	150# RF	FV / 7 (0.2)	130 (17-31)	Nitrogen Gas	Methanol	1.33-1.4	779.8-794.3	SS 316L	3072	External Chamber c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication
47-LG-3303	Cooling Water Expansion Vessel	Top Lvl	150# RF	FV / 18 (8)	0 / 85 (55)	Nitrogen Gas	Water	9.27	985.7	SS 316L	3550	MLG
48-LG-3004	HP Flare KO Drum	Top Lvl	150# RF	13.5 (2.9)	-46 / 180 (67)	HC Gas	Hydrocarbons + Water	1.92	944.5	SS 316L Painted	4060	MLG
48-LG-3101	LP Flare KO Closed Drain Drum	Top Lvl	150# RF	FV / 10 (1.5)	-29 / 130 (95)	HC Gas	Hydrocarbons + Water	0.794-1.314	923.7	SS 316L Painted	3945	MLG

KSR KUEBLER Scope of Supply to Offshore Systems

Tag No.	Service Description	Duty	Flanges Pressure Rating	Design (Op.) Pressure [barg]	Design (Op.) Temperature [°C]	Fluid Upper	Fluid Lower	Density Upper Fluid [kg/m³]	Density Lower Fluid [kg/m³]	Chamber Material	C to C	Type / Remarks
51-LG-5001 51-LT-5000	Hazardous Open Drain Tank	Top Lvl	150# RF	5 (0)	0 / 130 (24)		Water + Sea Water + Oil		999	SS 316L	2570	Dual Chamber MLG c/w Guided Wave Radar LT & Integral LCD Display, Hart® Communication
54-LG-5001	Fresh Water Tank	Top Lvl	150# RF	0.35 (0)	65 (17-31)		Fresh Water		997.3	SS 316L	1820	MLG

VOLVE TOPSIDE AND RIG MODIFICATION - STATOIL ASA - VETCO AIBEL AS (MÆRSK CONTRACTORS) - 2006

33-LG-3006	HP Separator Interface	Intf. Lvl	300# RF	51.7	180	Oil	Water	800	1015	6Mo	1915	MLG, Blue & Red Rollers
33-LG-3008	HP Separator Oil	Top Lvl	300# RF	51.7	180	HC Gas	Oil	28	800	6Mo	3170	MLG
33-LG-3106	Test Separator Interface	Intf. Lvl	300# RF	51.7	180	Oil	Water	800	1015	6Mo	1430	MLG, Blue & Red Rollers
33-LG-3108	Test Separator Oil	Top Lvl	300# RF	51.7	180	HC Gas	Oil	28	800	6Mo	2700	MLG
33-LG-3305	LP Sep/Degasser/Floc. Interface	Intf. Lvl	150# RF	20	180	Oil	Water	822	1014	6Mo	1150	MLG, Blue & Red Rollers
33-LG-3307	LP Sep/Degasser/Floc. Oil	Top Lvl	150# RF	20	180	HC Gas	Oil	3	822	6Mo	2450	MLG
33-LG-3312	LP Sep/Degasser/Floc. Oil	Top Lvl	150# RF	20	180	HC Gas	Oil	3	822	6Mo	3100	MLG
33-LG-3503	Electrostatic Coalescer Interface	Intf. Lvl	150# RF	20	180	Oil	Water	827	1018	6Mo	2850	MLG, Blue & Red Rollers
35-LG-3102	1st Stage Suction Scrubber	Top Lvl	150# RF	19	60	HC Gas	HC Liquid	2,56	807	SS 316L	900	MLG
35-LG-3702	2nd Stage LP Compression Suction Scrubber to LP Separator	Top Lvl	150# RF	19	60	HC Gas	HC Liquid	12,9	608	SS 316L	1080	MLG
36-LG-3102	Export Compression Suction Scrubber	Top Lvl	300# RF	49.6	60	HC Gas	HC Liquid	33,7	654	SS 316L	900	MLG
36-LG-3702	Reinjection/Gas Lift Compression Suction Scrubber	Top Lvl	1500# RTJ	148.9	60	HC Gas	Water	127	1000	SS 316L	900	MLG
43-LG-3110	Fuel Gas Scrubber	Top Lvl	300# RF	49.6	60	HC Gas	HC Liquid	32	645	SS 316L	900	MLG
43-LG-3402A	Fuel Gas Filter A	Top Lvl	300# RF	49.6	60	HC Gas	HC Liquid	32	645	SS 316L	604	MLG
43-LG-3402B	Fuel Gas Filter B	Top Lvl	300# RF	49.6	60	HC Gas	HC Liquid	32	645	SS 316L	604	MLG
44-LG-3124 44-LT-3125	Seal Fluid Run Down Tank	Top Lvl	150# RF	19	60	Air	Seal Fluid		1000	SS 316L	1190	MLG + LT, Hart® Communication
45-LG-5011 45-LT-5012	Antifoam Storage Tank	Top Lvl	150# RF	19	60	Air	Antifoam		1000	SS 316L	3200	MLG + LT, Hart® Communication
45-LG-5061 45-LT-5062	Demulsifier Storage Tank	Top Lvl	150# RF	19	60	Air	Demulsifier		950	SS 316L	3200	MLG + LT, Hart® Communication
45-LG-5151 45-LT-5152	Corrosion Inhibitor Storage Tank	Top Lvl	150# RF	19	60	Air	Corrosion Inhibitor		1000	SS 316L	3200	MLG + LT, Hart® Communication
45-LG-5191 45-LT-5192	Scale Inhibitor Storage Tank	Top Lvl	150# RF	19	60	Air	Scale Inhibitor		1200	SS 316L	3200	MLG + LT, Hart® Communication
45-LG-5231 45-LT-5232	Asphaltene Inhibitor Storage Tank	Top Lvl	150# RF	19	60	Air	Asphaltene Inhibitor		900	SS 316L	3200	MLG + LT, Hart® Communication
45-LG-5261 45-LT-5262	Wax Inhibitor Storage Tank	Top Lvl	150# RF	19	60	Air	Wax Inhibitor		900	SS 316L	3200	MLG + LT, Hart® Communication
45-LG-5311 45-LT-5312	Flocculant Storage Tank	Top Lvl	150# RF	19	60	Air	Flocculant		1000	SS 316L	3200	MLG + LT, Hart® Communication

KSR KUEBLER Scope of Supply to Offshore Systems

Tag No.	Service Description	Duty	Flanges Pressure Rating	Design (Op.) Pressure [barg]	Design (Op.) Temperature [°C]	Fluid Upper	Fluid Lower	Density Upper Fluid [kg/m³]	Density Lower Fluid [kg/m³]	Chamber Material	C to C	Type / Remarks
45-LG-5413 45-LT-5414	MEG Storage Tank	Top Lvl	150# RF	19	60	Air	MEG		1100	SS 316L	3200	MLG + LT, Hart® Communication
46-LG-3006	Heating Medium Expansion Vessel	Top Lvl	300# RF	49.6	60	Nitrogen gas	Heating Medium		927 - 1044	SS 316L	2700	MLG
46-LG-3601	Heating Medium Top Up Tank	Top Lvl	150# RF	19	60	Air	Heating Medium		1044	SS 316L	710	MLG
48-LG-3011	Flare KO Drum	Top Lvl	150# RF	20	180	HC Gas	HC Liquid	2,8	838	6Mo	3100	MLG
71-LG-5802 71-LT-5801	Water Purge Tank	Top Lvl	150# RF	19	60	Air	Water		1000	SS 316L	758	MLG + LT, Hart® Communication