

 <p>ENAR PETROTECH SERVICES (PVT.) LTD.</p>		<p align="center">LEVEL TRANSMITTER (External Caged Displacer)</p>		DATA SHEET NO.	0162-IMA-6126
				SHEET	1 OF 3
				DATE	17-Aug-17
				REV.	1
				PREPARED BY	WAS
				CHECKED BY	NAS
				APPROVED BY	NAS
OWNER:		OIL & GAS DEVELOPMENT COMPANY LIMITED (OGDCL)			
PROJECT:		DAKHNI GAS PLANT INSTRUMENT UPGRADEATION			
1	Tag Number			See Sheet 2 & 3	
2	Process Service Conditions			See Sheet 2 & 3	
3	Level / Interface Measurement			Level	
4	Sour Service	(Yes / No)		Yes	
5	Level Transmit Height	(Inches)		As per Center to Center Distance	
6	BODY				
7	Cage Material			Carbon Steel	
8	Connection Type / Rating	Note - 3		See Sheet 2 & 3	
9	Connection Location (Top - Bottom)	Note - 3		Side - Side	
10	Center to Center distance b/w Flanges.	(Inches)		See Sheet 2 & 3	
11	Cage Mounting			External	
12	Rotatable Head	(Yes/No)		Yes	
13	DISPLACER				
14	Sensor Type			External Caged Displacer	
15	Dimension	Note - 6	(mm)	VTA	
16	Insertion Depth			VTA	
17	Displacer Extension			VTA	
18	Displacer Material	Note - 2		316 SS	
19	Torque Tube Material			Stainless Steel	
20	TRANSMITTER				
21	Type			Electronic	
22	Indicator			Yes	
23	Mounting			Integral	
24	Electrical Connection	Note - 4		M 20 x 1.5	
25	Output Signal			4-20 mA with HART Protocol	
26	Power Supply (Loop Powered)			24 VDC	
27	Output Action on Level Rise			Increase	
28	Output Accuracy			0.5 % of Full Scale	
29	ENCLOSURE				
30	Enclosure Material			Cast Aluminium	
31	Enclosure Protection Rating			NEMA 4X / IP65 Corrosion Resistant	
32	Tropicalization			Yes	
33	Electrical Classification	Note - 5		EE x 'd ' IIC T 4	
34	ACCESSORIES				
35	SS Tag Required	Note - 1		Yes	
36	Cable Gland Required	Note - 4		No	
37	Drain Connection Size	Note - 7		3/4" NPT (F)	
38	NACE Compliance	Note - 8		Yes	
39	NOTES:				
	1 -	Vendor shall provide SS Tag attached with SS Screws or SS Wire. Tag shall contain Tag No. & Model No.			
	2 -	Pressure and temperature rating shall be compatible with mentioned process pressure & temperature.			
	3 -	End connection flange rating shall be as per ASME B16.5 standard.			
	4 -	Vendor shall provide Ex'd' metallic plugs for spare electrical connection.			
	5 -	Approval for Electrical / Hazardous Area Classification shall be from CENELEC, ATEX, Factory Mutual (FM), IEC or (CSA).			
	6 -	Vendor shall ensure that displacer measuring range shall be greater than the mentioned level transmit height.			
	7 -	Vendor shall provide drain connection with plugs.			
	8 -	All wetted parts shall conform to NACE MR-0175 / ISO 15156 (latest edition).			
	*	VTA = Vendor To Advise			



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OWNER:	OIL & GAS DEVELOPMENT COMPANY LIMITED (OGDCL)
PROJECT:	DAKHNI GAS PLANT INSTRUMENT UPGRADEATION

S.No	TAG NUMBERS	P&ID NUMBER	EQUIPMENT / VESSEL TAG NUMBER	MAXIMUM PRESSURE (PSIG)	MAXIMUM TEMPERATURE (°F)	SPECIFIC GRAVITY	FLANGE CENTER TO CENTER DISTANCE (INCHES)	FLANGE CONNECTION SIZE & RATING (TOP AND BOTTOM)	REMARKS
1	20-LT-02	E-3588-20005A (Sh 1 of 2) (Gas Treatment System)	FA-201 (Sour Gas K.O Drum)	1265	140	Upper : 0.617 Lower : 0.990	45.75	2" / 2" 600#	Existing Tag as 20-LIC-02
2	20-LT-04	E-3588-20005A (Sh 2 of 2) (Gas Treatment System)	FA-202 (Absorber Inlet K.O Drum)	1265	130	Upper : 0.541 Lower : 0.998	20	2" / 2" 600#	Existing Tag as 20-LIC-04
3	20-LT-05	E-3588-20005A (Sh 2 of 2) (Gas Treatment System)	FA-202 (Absorber Inlet K.O Drum)	1265	130	Upper : 0.541 Lower : 0.998	20	2" / 2" 600#	Existing Tag as 20-LIC-05
4	20-LT-06	E-3588-20005A (Sh 2 of 2) (Gas Treatment System)	DA-202 (Glycol Absorber)	1265	140	1.11	20	2" / 2" 600#	Existing Tag as 20-LIC-06
5	30-LT-01	E-3588-30005A (Glycol Re-generation System)	FA-301 (Glycol Flash Drum)	65	140	Upper : 0.650 Lower : 1.005	20	2" / 2" 150#	Existing Tag as 30-LIC-01
6	30-LT-02	E-3588-30005A (Glycol Re-generation System)	FA-301 (Glycol Flash Drum)	65	140	0.65	20	2" / 2" 150#	Existing Tag as 30-LIC-02
7	801-LT-01	2310-PB-2116 (Cooling Towers)	CT-8000 (Cooling Tower)	90	100	1	12	2" / 2" 150#	Existing Tag as 801-LIC-01
8	60-LT-012	2310-PB-2111 (LP & MP Separators)	FA-607 (MP Separator)	300	140	0.78	14	2" / 2" 600#	Existing Tag as 60-LIC-012
9	60-LT-013	2310-PB-2111 (LP & MP Separators)	FA-608 (LP Separator)	100	130	0.78	14	2" / 2" 600#	Existing Tag as 60-LIC-013
10	LT-06	0180-A1-12 (OLD SRU)	Waste Heat Boiler Deaerator	600	660	1	14	1.5" / 1.5" 300 RF	Existing Tag as LC-06
11	LT-9	0180-A1-13 (OLD SRU)	E-702 (Sulfur Condenser)	70	315	1	32	1.5" / 1.5" 150 RF	Existing Tag as LC-09
12	LT-18	0180-A1-20 (OLD SRU)	D-2 (Condensate Drum)	600	315	1	32	1.5" / 1.5" 150 RF	Existing Tag as LC-18
13	LT-90	0180-A1-20 (OLD SRU)	D-1 (Deaerator & Storage Drum)	10	225	1	24	2" / 2" 150#	Existing Tag as LC-90
14	100-LT-01	2310-PB-2053 (Sh 1 of 2) (Gas Separator Station)	100-FA-01 (HP Separator)	1265	200	0.681	26	2" / 2" 600#	Existing Tag as 100-LIC-01
15	100-LT-02	2310-PB-2053 (Sh 1 of 2) (Gas Separator Station)	100-FA-01 (HP Separator)	1265	200	0.981	24	2" / 2" 600#	Existing Tag as 100-LIC-02
16	100-LT-03	2310-PB-2053 (Sh 1 of 2) (Gas Separator Station)	100-FA-02 (HP Separator)	1265	200	0.681	26	2" / 2" 600#	Existing Tag as 100-LIC-03
17	100-LT-04	2310-PB-2053 (Sh 1 of 2) (Gas Separator Station)	100-FA-02 (HP Separator)	1265	200	0.981	24	2" / 2" 600#	Existing Tag as 100-LIC-04
18	100-LT-05	2310-PB-2053 (Sh 1 of 2) (Gas Separator Station)	100-FA-03 (Test Separator)	1265	200	0.681	26	2" / 2" 600#	Existing Tag as 100-LIC-05
19	100-LT-06	2310-PB-2053 (Sh 1 of 2) (Gas Separator Station)	100-FA-03 (Test Separator)	1265	200	0.981	24	2" / 2" 600#	Existing Tag as 100-LIC-06
20	100-LT-07	2310-PB-2053 (Sh 1 of 2) (Gas Separator Station)	100-FA-04 (LP Separator)	30	100	0.681	20	2" / 2" 150#	Existing Tag as 100-LIC-07
21	100-LT-08	2310-PB-2053 (Sh 2 of 2) (Sweet Gas Separator Station)	100-V-2102B (Sweet Gas Separator)	2050	200	0.681	20	2" / 2" 900#	Existing Tag as 100-LIC-08
22	100-LT-09	2310-PB-2053 (Sh 2 of 2) (Sweet Gas Separator Station)	100-V-2102B (Sweet Gas Separator)	2050	200	0.981	20	2" / 2" 900#	Existing Tag as 100-LIC-09
23	50-LT-01	E-3588-50005A (Sh 1 of 3) (Dew Point Reduction System)	FA-501 (Cold Separator)	1000	-25	Upper : 0.650 Lower : 1.130	14	2" / 2" 600#	Existing Tag as 50-LIC-01
24	50-LT-02	E-3588-50005A (Sh 1 of 3) (Dew Point Reduction System)	FA-501 (Cold Separator)	1000	-25	0.65	29.53	2" / 2" 600#	Existing Tag as 50-LIC-02



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OWNER: OIL & GAS DEVELOPMENT COMPANY LIMITED (OGDCL)
PROJECT: DAKHNI GAS PLANT INSTRUMENT UPGRADE

S.No	TAG NUMBERS	P&ID NUMBER	EQUIPMENT / VESSEL TAG NUMBER	MAXIMUM PRESSURE (PSIG)	MAXIMUM TEMPERATURE (°F)	SPECIFIC GRAVITY	FLANGE CENTER TO CENTER DISTANCE (INCHES)	FLANGE CONNECTION SIZE & RATING (TOP AND BOTTOM)	REMARKS
25	50-LT-03	E-3588-50005A (Sh 1 of 3) (Dew Point Reduction System)	FA-504 (NGL Feed Drum)	545	-48	Upper : 0.640 Lower : 0.690	14	2" / 2" 300#	Existing Tag as 50-LIC-03
26	50-LT-04	E-3588-50005A (Sh 1 of 3) (Dew Point Reduction System)	FA-504 (NGL Feed Drum)	545	-48	Upper : 0.650 Lower : 1.130	20	2" / 2" 300#	Existing Tag as 50-LIC-04
27	60-LT-01	E-3588-60005A-D1 (NGL Fractionator)	FA-601 (NGL Fractionator Feed Drum)	660	165	Upper : 0.730 Lower : 1.000	20	2" / 2" 300#	Existing Tag as 60-LIC-01
28	60-LT-02	E-3588-60005A-D1 (NGL Fractionator)	FA-601 (NGL Fractionator Feed Drum)	660	165	Upper : 0.730 Lower : 1.000	20	2" / 2" 300#	Existing Tag as 60-LIC-02
29	60-LT-03	E-3588-60005A-D1 (NGL Fractionator)	DA-601 (NGL Fractionator)	335	565	0.573	20	2" / 2" 300#	Existing Tag as 60-LIC-03
30	60-LT-04	E-3588-60005A-D1 (NGL Fractionator)	FA-602 (NGL Fractionator O/H Drum)	335	140	Upper : 0.552 Lower : 0.990	14	2" / 2" 300#	Existing Tag as 60-LIC-04
31	60-LT-05	E-3588-60005A-D1 (NGL Fractionator)	FA-602 (NGL Fractionator O/H Drum)	335	140	Upper : 0.552 Lower : 0.990	14	2" / 2" 300#	Existing Tag as 60-LIC-05
32	60-LT-06	E-3588-60005B-D1 (NGL Fractionator)	DA-602 (De-Ethaniser)	510	-25 / 325	0.428	30	2" / 2" 300#	Existing Tag as 60-LIC-06
33	60-LT-07	E-3588-60005B-D1 (NGL Fractionator)	FA-603 (De-Ethaniser O/H Drum)	513	-25	0.518	14	2" / 2" 300#	Existing Tag as 60-LIC-07
34	60-LT-12	E-3588-60005B-D1 (NGL Fractionator)	EA-605 (De-Ethaniser O/H Drum)	450	250	0.78	14	2" / 2" 300#	Existing Tag as 60-LIC-12
35	60-LT-09	E-3588-60005C-D1 (NGL Fractionator)	DA-602 (De-Butaniser)	225	390	0.519	30	2" / 2" 300#	Existing Tag as 60-LIC-09
36	60-LT-10	E-3588-60005C-D1 (NGL Fractionator)	FA-604 (De-Butaniser O/H Drum)	225	165	0.519	14	2" / 2" 300#	Existing Tag as 60-LIC-10
37	60-LT-11	E-3588-60005D-D1 (NGL Fractionator)	DA-604 (NGL Fractionator Off Gas Amine Scrubber)	272	175	0.976	158	2" / 2" 300#	Existing Tag as 60-LIC-11
38	60-LT-2000A	E-3588-60005E-D1 (NGL Fractionator)	Stripper	50	150	0.78	14	1.5" / 1.5" 300 RF	Existing Tag as 60-LIC-2000A
39	60-LT-2000B	E-3588-60005E-D1 (NGL Fractionator)	Stripper	50	150	0.78	14	1.5" / 1.5" 300 RF	Existing Tag as 60-LIC-2000B