

Sr. No.	Client	Details	Year
		Failure Investigation of Air Outlet Nozzle Liners And Expansion Joints of Air Outlet	
		Header Catofin Reactors	
		Failure investigation of sea water pump roller bearing	
1	ADVANCED Petrochemicals Company	Failure investigation of 2-E-5001 Baffle Plate Bolt	
1	ADVANCED Petrochemicals Company	Failure investigation of fin fan shaft	
		Failure investigation of roller bearing	
		Failure investigation of bearing samples	2016
		Failure investigation of propylene pump motor (5-PM-8201) bearing	2017
2	SABIC (KEMYA)	Failure investigation of fin fan blade	
3	Nesma& Partners Company	Failure investigation of 90 deg. Elbow 2" (304SS)	
		Failure investigation of U-bolts	
		Failure investigation of process water pipe	
		Failure investigation of water wall tube	
		Failure investigation of superheater tube	
4	Saudi Charman Camanan (SCUENA)	Failure investigation of U Tube of Exchanger	
4	Saudi Chevron Company (SCHEM)	Failure investigation of Radiant tube	2016
		Failure Analysis of Cracked Outlet Line	2018
		Failure investigation of 1.25 inch pipe of hot combustor window-2 in burner air piping	2018
		Failure investigation of 4 inch burner pipe of window-4 in hot combustor	2018
		Failure investigation of 8X6 inch concentric reducer in cold combustor unit	2018
5	SIPCHEM	Failure investigation of air compressor rotor	
		Failure investigation of tube	
6		Failure investigation of primary quench exchanger	
	SABIC (Saudi Kayan)	Failure investigation of shaft	
		Failure investigation of pipe	
		Failure investigation of de-superheater	



		Failure investigation of thinned tube	
		Failure investigation of cracked tube	
		Failure investigation of Cu-Ni tube	
		Failure investigation of valve stem	
		Failure investigation of U-bend tube	
		Failure investigation of 4" spool piece	
		Failure investigation of equal Tee 3/4" Stress line	2016
		Failure investigation of annular plate samples	2016
		Failure investigation of broken pieces of shaft	2016
		Failure investigation of flexible hose	2016
		Failure investigation of non-metallic nozzle	2016
		Failure investigation of flexible hose pipe of lube oil pump discharge line	2017
		Failure investigation of bucket conveyor	2017
		Failure investigation of failed internally line elbow	2017
	+	Failure investigation of failed internally line elbow  Failure investigation of shaft	2017
		Failure investigation of heat exchanger tude	
		Failure investigation of elbow	
	TAGNIE	Failure investigation of endow  Failure investigation of outlet nozzle	
		Failure investigation of 4" pipe	
		Failure investigation of 4" tie rod	
		Failure investigation of 4 tie rou  Failure investigation of valve stem	
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7	TASNEE	Failure investigation of furnace drain pipe	
		Failure investigation of studs	
		Failure investigation of 90 deg. elbow	
		Failure investigation of finned tube	
		Failure investigation of hyper compressor 2C cylinder	
		Failure investigation ofconnection rod of BOG Compressor	
		Failure investigation of 76mm diameter Radiant Coil	
l		Failure investigation of(3/8") diameter of pump tube	



		Failure investigation of super-heater coil	
		Failure Investigation of Piston Rod	2017
		Failure Analysis for flue Gas cooler	2018
		Failure investigation of shaft	
8	SABIC (UNITED)	Failure investigation of shell	
		Failure investigation of valve stem	
9	Crystal Global Co., Yanbu	Failure investigation of elbow	
		Failure investigation of pipe	
10	Cristal Company	failure investigation of Tickle preheater pipe A and B from B-301 A coils	
		failure investigation of flexible hose	
		Failure investigation of bolts	
		Failure investigation of super-heater tube	
		Failure investigation of damper plate	2016
	MAADEN	Failure investigation of pinion shaft in phosphoric acid plant	2016
11		Failure investigation of belt support roller	2017
11		Failure investigation of tube of sulfuric acid cooler	2017
		Failure investigation of Sulfuric Acid Plant (SAP 5A) cooler 5A53-E01 tube	2017
		Failure Investigation of ruptured tube	2018
		Failure Investigation of bulged tube	2018
		Failure Investigation of pin holed tube	2018
	SABIC TECHNOLOGY CENTER	Failure investigation of Elbow	
		Failure investigation of Thermowell	
		M24 U-bolts	
		Eo Gas Cooler Tube Sheet Welds	
12		SD-10-0015 (boiler bank tube)	
		Bowel & shaft	
		Tubes	
		Boiler feed water pump	
		Economiser weld joint	



		SF-10-0035 (scrubber tube)	
		Tube Sheet Knuckle	
		SF-10-0036 (condenser tube)	
		SS bolts	
		dehydrator cooler tubes	
		26" elbow	
		Shell plates	
		Flanges	
		Bearing case	
		Chilled water evaporator copper tube	
		Multi stage pump shaft	
		Single stage pump shaft	
		Failure investigation of Pipe spool of services water line	
13	Luberef	Failure investigation of LP Condensate Line	
		Failure investigation of M-1001-C-Ejector	
14	SIPCHEM	Failure investigation of Heat-exchanger tubes	
	GPIC, Bahrain	Failure investigation of Methanol Storage Tank – Bottom Plate	
		Failure investigation of Methanol Storage Tank – Annular Plate	
		Failure investigation of Boiler Furnace Tube – B5203	
		Failure investigation of Ferrules in Waste Heat Boiler E0801	
15		Failure investigation of ruptured boiler tube	2017
		Failure investigation of dented boiler tube	2017
		Failure investigation of leaked economizer tube	2017
		Failure investigation of reformer tubes (MOC: Centralloy 4852 Micro)	2018
		Failure Investigation of Stub end piece	2018
16	Saudi Railway	Failure Investigation of 14 broken springs	2016
17	NOMAC	Failure investigation of broken stud	2016
18	Q-Chem	Failure investigation of PTFE gas inlet nozzle	2016



		Failure investigation of feed 2 preheater tubes of furnace convection section	2016
		Failure investigation of HS piping and weld	2017
19	Shelf Drilling	Failure investigation of drilling pipe	2016
20	Samsung Engineering	Failure investigation of 3 No of failed cooling water pipes	2016
21	Chamanal	Failure investigation of outer tubes of H335 twin pass re-boiler	2017
21	Chemanol	Failure investigation of methanol reformer tube	2017
22	MARAFIQ (YANBU)	Failure investigation of tube: MED-10 evaporator Effect	2017
22	SAHARA	Failure investigation of PDH reactor outer screen weld failure	2017
23		Failure investigation of PDH rectore inner screen bottom ring failure	2017
24	NATPET	Failure investigation of damaged shell of dryer scrubber	2017
25	YASREF (SANKYU)	Failure investigation of jacket flexible hose	2017
26	SWCC	Failure Investigation of water wall tube	2018
27	Baker Hughes	Failure investigation of swivel	2018
28	JOMEL	Failure Investigation of broken bolts	2018
29	Gulf Steel Works	Failure Analysis of Skid collet to tee joint	2018
30	SADAF-SABIC	Failure mode analysis of broken gear teeth	2018
31	SAFCO-SABIC	Failure investigation of 2006-J Bearing Housing and Pad	2018
32	Ratnamani	Failure investigation of NPS pipe in flare piping system line in KOD Area	2018

### Remaining Life Assesment (RLA) & Condition Assessment Projects

Sr. No.	Client	Details	Year
1	CTCI	Assessment of Metallurgical Degradation in Tanks (68007)	
1	CICI	Assessment of Metallurgical Degradation in Tanks (68008)	



2	Saline Water Conversion Corporation (SWCC) Al-Jubail, Kingdom of Saudi Arabia	Remaining life assessment of Super heater tubes of unit #05 boiler, by Internal oxide scale measurement approach  RLA study of Boiler Unit-6  Life Assessment of Main Steam Common Header Boiler Unit 1,3,4 & 6  Life Assessment of Boiler Parts, Phase 1, Unit 2 & Turbine Blade	
3	Axis Inspection	Condition Assessment of 8 elbows, 4 reducers and 2 T-joints	
	CTCI	Condition assessment of Tank TK-5121	2016
		Condition assessment of Tank TK-4445	2016
4		Condition assessment of Tank TK-4701	2016
4		Condition assessment of Tank TK-7202	2016
		Condition assessment of Tank TK-7608	2016
		Condition assessment of Tank TK-7612	2016
5	CHIYODA ALMANA	Condition assessment of internal liners for bellows	2017
6	IBB-SABIC	Remaining Life Assessment of the 4 Boilers (RLA Study)	2018

### **Fitness For Service (FFS) Projects**

Sr. No.	Client	Details	Year
1	ADVANCED PETROCHEMICALS COMPANY, KSA	Fitness For Service Assessment Of Powder Ko Drum (3-V-3001)	
2	SAFCO – JUBAIL, KINGDOM OF SAUDI ARABIA (Total: 15 jobs)	Level – 1 Fitness For Service (FFS) Assessment As Per Guidelines of API 579	
3	SAUDI CHEVRON	Fitness for service assessment of tubes of radiant coils and outlet headers F3301 As per API579 ASME FFS1-2007 Part 10 Level-2 assessment	2017
4	CRISTAL-YANBU	Fitness for service assessment of packaged boiler B504-D	

### **Metallographic Replication / Insitu Replica Projects**



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Sr. No.	Client	Details	Year
1	SABIC-PETROKEMYA	Emergency requirement	2016, 2017, 2018
2	SAUDI KAYAN	Shutdown Job & Emergency requirements	2016, 2017
3	LABORELEC	PP-11 Shutdown, Marafiq & Shoaiba Power Plant Emergency requirement	2016, 2017
4	SATORP	Emergency requirement & Major Turnaround-2018	2016, 2017, 2018
5	SAECO	Routine Jobs Replica+ Macro+ Hardness	2016, 2017, 2018
6	SAUDI ARAMCO-RASTANURA	Shutdown Job	2016, 2017
7	SABIC-IBN ZAHR	Shutdown Job	2016, 2017
8	SABIC-UNITED	Shutdown Job	2016, 2017
9	SABIC-SAFCO	Shutdown Job, Emergency requirement	2016, 2017, 2018
10	Axis Inspection	Emergency requirement for Hadeed, Ibn Sina, Sadaf & PetroRabigh	2016
11	RGF	Emergency requirement for Shoaiba Power Plant & Alstom	2016
12	NOMAC	Emergency requirement & Shutdown job	2016, 2018
13	SABIC-IBN SINA	Shutdown	2016, 2017, 2018
14	SABIC-SADAF	Emergency requirement	2016, 2017, 2018
15	TASNEE	Shutdown Job	2016, 2017, 2018
16	YANSAB	Emergency requirement	2016
17	MAADEN PHOSPHATE	Emergency requirement	2016, 2017, 2018
18	NDTCCS	Emergency requirement for Maaden Phosphate	2016, 2017
19	SABIC-AR RAZI	Emergency Shutdown Job	2016, 2017, 2018
20	CTCI	Emergency requirement	2016, 2017
21	BAPCO REFINERY BAHRAIN	Shutdown Job	2016, 2017
22	SABIC-SAFCO_IBB	Shutdown Job	2016, 2017, 2018
23	GPIC-BAHRAIN	Emergency requirements	2017, 2018
24	AL-EZZEL POWER PLANT-BAHRAIN	Emergency requirements	2017
25	SADARA	Emergency requirements	2016, 2017
26	TAMIMI	Emergency requirements	2017
27	QPP (QURRAYAH POWER PLANT)	Emergency requirements	2016, 2018



28	PP11 Riyadh	Emergency requirements	2016, 2017
29	GEMTECH	Emergency requirements & Routine jobs	2016, 2017
30	KEMYA	Emergency requirements	2016, 2017
31	SABTANK	Emergency requirements	2016, 2017, 2018
32	SATORP	Emergency requirements + Shutdown jobs	2016, 2017, 2018
33	RIYADH REFINERY	Emergency requirements	2017
34	DHURUMA	Emergency requirements	2016, 2017
35	CRISTAL	Emergency requirements	2016, 2017, 2018
36	JOMEL	Emergency requirements	2017, 2018
37	ENGIE	Emergency requirements	2016, 2017
38	ADVANCE INSPECTION SERVICES (AIS)	Emergency requirements	2018
39	SEC- TIHAMA	Emergency requirements	2018
40	Al-Khorayef	Routine testing	2018
41	Kubota	Micro+Macro+Grain size measurement jobs	2018
42	Precision Forging	Micro+Grain size measurement jobs	2018
43	Aminat	Emergency requirements	2018
44	Romco	Emergency requirements	2018
45	APPC	Shutdown+Emergency requirements	2017, 2018