

OIL AND GAS DEVELOPMENT COMPANY LIMITED
Chanda LPG Plant

SCHEDULE OF REQUIREMENT

TENDER ENQUIRY # TE/COF/ATA/01/2021

Technical services for Preventive Maintenance of Chanda LPG Plant & Ajax Compressors during ATA-2021 Chanda Oil Field OGDCL.

S#	<u>Description</u>	<u>Reference #</u>	<u>Rate</u>	<u>Total rate (inclusive of all Taxes)</u>	<u>Deviation</u>
1	As per scope of work given in tender documents				

Note. Separate rate to be quoted for each and every activity as mentioned in scope of work.

TERMS & CONDITIONS FOR ATA-2021 OF CHANDA LPG PLANT & AJAX COMPRESSORS**GENERAL:**

1. Technical services are required for Annual Maintenance of LPG Plant's equipment (Static plus Rotary) during annual turn around (ATA-21) of Chanda Plant for an estimated period of 08 days tentatively schedule from 01-06-2021 to 08-06-2020, however the schedule and duration of shut down may change.
2. **Bids are required in PKR against each activity as mentioned in the scope of work. Detail of jobs (scope of work) is elaborated in tender documents.**
3. Working hours will be considered 24 Hours with 02 shifts (12 Hours day shift & 12 Hours night shift). Sunday/holiday will be considered as normal working day.
4. **Payment will be made as per actual work done through cross cheque after completion of the job been verified by OGDCL supervisor at site.**
5. Skilled manpower should be well experienced in their respective crafts.
6. Management of the plant reserves the right to terminate the services of hired staff at any time without justification.
7. HSEQ Rules & Regulations and COVID SOP's to be strictly followed. 01 HSEQ Officer/supervisor must be member of ATA team.
8. All the participating companies should have an ATA experience of working on Processing Plants.
9. Jobs will be carried out as per priority set by OGDCL supervisors and contractor will utilize all its resources to complete the jobs as per time frame given by OGDCL.
10. OGDCL may delete add or change any type of activity given in the scope of work.
11. Technical manpower must be skilled enough, having at least five years' experience in respective trade. Skilled manpower will be interviewed by OGDCL professionals in all disciplines, if deemed necessary and contractor should arrange the interview at their premises. Detailed CV's of direct manpower/supervisors is mandatory. Relevant experience manpower to be deputed for Ajax jobs.
12. Use of mobile phone and camera is prohibited in the plant premises.
13. Any required technical clarification/detail regarding scope of work should be cleared before submission of bid. No change in substance of bid will be entertained after bid submission date.

CONTRACTOR RESPONSIBILITIES:

1. Site administration personnel with associated resources like computer, printers, photocopiers etc.
2. Providing PPE (Safety helmet, Coverall, Safety shoes, Gloves, etc.) of all kinds to hired crew.
3. CV's of all the skilled Personnel will be provided well before ATA. Evaluation of all the short listed skilled personnel will be carried out by Field supervisors well before the ATA.
4. Local labors may be given preference while hiring services for ATA.
5. All kind of Tools required for the job.
6. Provision of All type of Rigging and hoisting equipment.
7. Scaffolding Services (installation and dismantling).
8. Removal of Insulation/ Cladding & Installing back by skilled Insulator.
9. Security of all the Hired Crew.
10. Drinking Water, Boarding/ Lodging, refreshment to all the Crew.
11. Pick and drop from Plant to accommodation and back.
12. In case of any accident, medical treatment or compensation, whichever is applicable?
13. Electrical Supply Boards along with cables as per HSE standard.
14. Hand trolley for movement of parts inside the Plant will be arranged by the Contractor
15. Arrangement of hose Pipes for vessel flushing.
16. Proper housekeeping & skids cleaning of all equipment must be ensured.

OGDCL RESPONSIBILITIES:

1. Electricity for Lighting & Fan.
2. Spare parts.
3. Blinds & valves for Isolation & Pressure Testing.

4. Logistic support i.e. Cranes & Lifters.
5. Nitrogen purging & Leak test.

SCOPE OF WORK FOR MAINTENANCE JOBS DURING ATA-2021

S.NO	HP Separators, Crude Stabilization And Ajax Comps	Unit rate	Total rate
LPG001	Cleaning/Flushing Of HP Sep V-116 A/B/C & Crud Flash Sep V-100/101/102		
LPG002	Cleaning Suction Strainers/ Line For Pumps P-100 A/B And P-102 A/B		
LPG003	Crude Oil Heater E-100 A/B Internal Inspection and Bundle Cleaning		
LPG004	P-100 C Both Discharge Valve Passing Problem Rectification		
LPG005	E-100 B Crude Inlet Valve Passing Problem Rectification		
LPG006	Ajax HP Compressor 2" Flare Line Valve Passing Problem		
LPG007	K-102 Discharge Valve at Flare Line Passing Problem Rectification		
LPG008	V-116C provision of 6" Valve on Gas Out Let Line		
LPG009	E-111 Product Cooler Jet Cleaning		
LPG010	MEG / TEG Re-boilers U-Tube Cleaning and flushing		
	LPG Recovery, MEG, Hot Oil & Refrigeration Package		
LPG011	RP Engine, Cooling Tower, Cleaning, Inspection, Maintenance		
LPG012	MEG Re-boiler Cleaning/Inspection		
LPG013	LTS V-108 Cleaning, Flushing and Inspection		
LPG014	E-108 Leakage Rectification (C.100 Re-boiler)		
LPG015	TEG/MEG unit Cartridge & Charcoal Filters replacement		
LPG016	LPG P-103 A/B, MEG P-200A/B/C, Hot Oil P-400 A/B, Condenser P-701a/B Maintenance		
LPG017	Hot Oil Return Line Filter Inspection/ Cleaning		
LPG018	RP Cooling Tower Water Showering Line To Be Inspected		
LPG019	MEG Coil Still Column Leakage Rectification		
LPG020	Hot Oil Furnace Refractory Inspection/ Repair		
LPG021	C-101 Water Drain Line Leakage Removal		
	Feed Gas, Sale Gas Compressor, TEG Unit		
LPG022	Kimray Pumps A/B/C Maintenance /Service		
LPG023	Provision Of Valves At Flash Sep LG/ Inlet Sep Crude Side And Water Side (Fabrication).		
LPG024	Feed Gas /Sale Gas Comp Cleaning, Oil Change, Filter Replacement, Greasing		
LPG025	Provision of L.G At TEG Flash Separator (Fabrication)		
LPG026	TEG Surge Tank And TEG Re-boiler Cleaning and Flushing		
LPG027	Cartridge And Charcoal Filter Replacement		
LPG028	Leakage Removal Of TEG Re-boiler/ Internal Inspection (Welding)		
LPG029	Feed Gas Compressor Skid Lube Oil Drain Line To Be Fabrication (Fabrication)		
LPG030	Feed Gas Compressor Final Stage Damaged Level Glass Replacement		
	Utilities, LPG Storage, Flare, CPI & Power House		
LPG031	Flare KOV (V-500) Cleaning/ Inspection		
LPG032	Fire Water Pumps/Engine Preventive Maintenance		
LPG033	P-500A/B,P-800A/B/C,P-801A/B,P-802A/B,P-1200 & P-1201 Preventive Maintenance		
LPG034	Preventive Maintenance of Generators G1, G2, G3,G4 & DG		
LPG035	Gas Pre-Treatment Unit Filters Inspection/ Replacement		
	Manways Opening		
LPG036	HP Separators V-116 A/B/C, Crude Flash Separators V-100, V-101 ,V-102		
LPG037	E-108,V-108,V-109, C-100,C-101, TEG Absorber, RP Cooling Tower		
	Inspection/ Maintenance/Overhauling Of Rotary Equipment		
LPG038	P-100 A/B/C, P-102 A/B, P-103 A/B,P-104 A/B,P-200 A/B,P-400 A/B, Kimray Pumps		
LPG039	General House Keeping Of Plant Area		

LPG040	Valve 2" & above (Gate, Ball, Globe) Repair/ Maintenance, Quantity 20 No.		
LPG041	Welding Fabrication (X-Ray= 300 Dia Inch & Non X-Ray= 200 Dia Inch)		
	Overhauling/ Inspection of Cooper Ajax LP Compressor DPC 140 Engine: 2 Stroke, 01 Cylinder, 140 BHP/ Compressor: 01 Cylinder, Stroke 11", Pressure 3.5-50 psi		
	Cooling System		
Ajax001	Cleaning of Engine & Compressor cooling water jackets		
Ajax002	Inspection/ replacement of Cooling Fan/ Water pump Belt		
Ajax003	Inspection/ replacement of radiator fan shaft bearing (if required) eliminating vibration		
Ajax004	Straightening & cleaning of cooler fins		
Ajax005	Inspection/ cleaning of cooler tubes		
Ajax006	Inspection/ repairing of cooling water pump (if required)		
Ajax007	Removal of HP Compressor Pump Cavitation		
Ajax008	Greasing of all Bearings.		
Ajax009	Removal of all leakages		
Ajax010	Cleaning of Fan Blades & Painting of Cooling Fan Housing and Bed Assembly		
	Lubrication System		
Ajax011	Cleaning/ inspection of Force Feed lubricators and replacement of worn parts		
Ajax012	Cleaning/ inspection of Pre lube pump and replacement of worn parts		
Ajax013	Rectification of Level Float Valve operation problem		
Ajax014	Removal of all leakages in the lubrication system		
	Crankcase assembly		
Ajax015	Draining/Flushing Crankcase		
Ajax016	Inspection/ replacement of crank pin bearings (if necessary) and adjust clearances. (Power & compressor piston)		
Ajax017	Inspection/ replacement of cross head pin bearing (if necessary) and adjust clearances. (Power & compressor piston)		
Ajax018	Inspection/ replacement of thrust bearings (if necessary) and adjust clearances		
Ajax019	Inspection/ repair/ replacement of crankshaft (if necessary)		
Ajax020	Inspection/ replacement of lay shaft gear & drive gear on crankshaft (if necessary)		
Ajax021	Cleaning of Breather caps on the crankcase		
Ajax022	Inspection and adjustment of sheaves alignment		
	Power Cylinder Assembly		
Ajax023	Removal of cylinder heads, Inspection of intake/ exhaust ports and removal of Carbon		
Ajax024	Inspection/ replacement of rod pressure packing		
Ajax025	Inspection/ replacement of worn piston rings and thorough cleaning of piston and ring		
Ajax026	Inspection/ replacement of power cylinder Bodies (if required)		
Ajax027	Inspection/ replacement of piston and piston rod (if required)		
Ajax028	Compressor Cylinder Assembly		
Ajax029	Inspection/ replacement of compressor piston rod pressure packing, if required		
Ajax030	Inspection/ replacement of compressor variable pocket pressure packing, If required		
Ajax031	Inspection/ replacement of Cylinder liners		
Ajax032	Inspection/ replacement of piston and piston rod, if required		
Ajax033	Inspection/ replacement of worn piston rings and thoroughly cleaning of piston ring		
Ajax034	Rebuilding/ replacement of Suction & Disch Valves		
Ajax035	Inspection/ replacement of compressor cylinder body		
Ajax036	Dismantling of both cylinder bodies and Mechanical cleaning of water jackets		
	Fuel System		
Ajax037	Checking of Fuel System and cleaning of inlet Fuel Filter		
Ajax038	Complete overhauling of fuel injection valves		
Ajax039	Inspection/ replacement of hydraulic pumps, if required		

Ajax040	Inspection/ replacement of hydraulic NRV's, if required		
Ajax041	Removal of leakages in the hydraulic system		
Ajax042	Inspection/ replacement of tubes of hydraulic circuit, if required		
Ajax043	Cleaning of hydraulic storage bottle		
Ajax044	Inspection/ replacement of driving Cams of hydraulic pumps, if required		
Ajax045	Inspection of lay shaft and driving Gears		
Ajax046	Inspection of the fuel intake manifold and removal of leakages		
	Air Intake System		
Ajax047	Inspection/cleaning of air filters and replacement, if required		
Ajax048	inspection/Rebuilding of Reed valves, if required		
	Ignition System		
Ajax049	Inspection/ replacement of spark plugs, if required		
Ajax050	Inspection/ replacement of Ignition cables, if required		
Ajax051	Inspection/ replacement of pick up coil, if required		
Ajax052	Inspection/ replacement of ignition coil, if required		
Ajax053	Inspection/ replacement of alternator, if required		
Ajax054	Other Jobs		
Ajax055	Thorough Cleaning of Fly wheel		
Ajax056	Thorough cleaning of Compressor & skid		
Ajax057	Startup of Compressor after job completion		
Ajax058	Adjustment of Firing timing, if required		
Ajax059	Load testing		
Ajax060	Tightening of Foundation Bolts		
Ajax061	Housekeeping of area after job completion		
	Overhauling/ Inspection of Cooper Ajax MP Compressor DPC 600 Engine: 2 Stroke, 03 Cylinders, 600 BHP/ Compressor: 02 Cylinders, Stroke 11", 50-250 psi		
Ajax062	Cooling System		
Ajax063	Cleaning of Engine & Compressor cooling water jackets		
Ajax064	Inspection/ replacement of Cooling Fan/ Water pump Belt		
Ajax065	Inspection/ replacement of radiator fan shaft bearing (if required) eliminating vibration		
Ajax066	Straightening & cleaning of cooler fins		
Ajax067	Inspection/ cleaning of cooler tubes		
Ajax068	Inspection/ repairing of cooling water pump (if required)		
Ajax069	Removal of HP Compressor Pump Cavitation		
Ajax070	Greasing of all Bearings.		
Ajax071	Removal of all leakages		
Ajax072	Cleaning of Fan Blades & Painting of Cooling Fan Housing and Bed Assembly		
Ajax073	Lubrication System		
Ajax074	Cleaning/ inspection of Force Feed lubricators and replacement of worn parts		
Ajax075	Cleaning/ inspection of Pre lube pump and replacement of worn parts		
Ajax076	Rectification of Level Float Valve operation problem		
Ajax077	Removal of all leakages in the lubrication system		
	Crankcase assembly		
Ajax078	Draining/Flushing Crankcase		
Ajax079	Inspection/ replacement of crank pin bearings (if necessary) and adjust clearances. (Power & compressor piston)		
Ajax080	Inspection/ replacement of cross head pin bearing (if necessary) and adjust clearances. (Power & compressor piston)		
Ajax081	Inspection/ replacement of thrust bearings (if necessary) and adjust clearances		

Ajax082	Inspection/ repair/ replacement of crankshaft (if necessary)		
Ajax083	Inspection/ replacement of lay shaft gear & drive gear on crankshaft (if necessary)		
Ajax084	Cleaning of Breather caps on the crankcase		
Ajax085	Inspection and adjustment of sheaves Alignment		
	Power Cylinder Assembly		
Ajax086	Removal of cylinder heads, Inspection of intake/ exhaust ports and removal of Carbon		
Ajax087	Inspection/ replacement of rod pressure packing		
Ajax088	Inspection/ replacement of worn piston rings and thorough cleaning of piston and ring		
Ajax089	Inspection/ replacement of power cylinder Bodies (if required)		
Ajax090	Inspection/ replacement of piston and piston rod (if required)		
	Compressor Cylinder Assembly		
Ajax091	Inspection/ replacement of compressor piston rod pressure packing, if required		
Ajax092	Inspection/ replacement of compressor variable pocket pressure packing, If required		
Ajax093	Inspection/ replacement of Cylinder liners		
Ajax094	Inspection/ replacement of piston and piston rod, if required		
Ajax095	Inspection/ replacement worn piston rings and thoroughly cleaning of piston ring		
Ajax096	Rebuilding/ replacement of Suction & Disch Valves		
Ajax097	Inspection/ replacement of compressor cylinder body		
Ajax098	Dismantling of both cylinder bodies and Mechanical cleaning of water jackets		
	Fuel System		
Ajax099	Checking of Fuel System and cleaning of inlet Fuel Filter		
Ajax100	Complete overhauling of fuel injection valves		
Ajax101	Inspection/ replacement of hydraulic pumps, if required		
Ajax102	Inspection/ replacement of hydraulic NRV's, if required		
Ajax103	Removal of leakages in the hydraulic system		
Ajax104	Inspection/ replacement of tubes of hydraulic circuit, if required		
Ajax105	Cleaning of hydraulic storage bottle		
Ajax106	Inspection/ replacement of driving Cams of hydraulic pumps, if required		
Ajax107	Inspection of lay shaft and driving Gears		
Ajax108	Inspection of the fuel intake manifold and removal of leakages		
	Air Intake System		
Ajax109	Inspection/cleaning of air filters and replacement, if required		
Ajax110	inspection/Rebuilding of Reed valves, if required		
Ajax111	Ignition System		
Ajax112	Inspection/ replacement of spark plugs, if required		
Ajax113	Inspection/ replacement of Ignition cables, if required		
Ajax114	Inspection/ replacement of pick up coil, if required		
Ajax115	Inspection/ replacement of ignition coil, if required		
Ajax116	Inspection/ replacement of alternator, if required		
	Other Jobs		
Ajax117	Thorough Cleaning of Fly wheel		
Ajax118	Thorough cleaning of Compressor & skid		
Ajax119	Startup of Compressor after job completion		
Ajax120	Adjustment of Firing timing, if required		
Ajax121	Load testing		
Ajax122	Tightening of Foundation Bolts		
Ajax123	Housekeeping of area after job completion		
	Overhauling/ Inspection of Cooper Ajax HP Compressor DPC 600 Engine: 2 Stroke, 03 Cylinders, 600 BHP/ Compressor: 02 Cylinders, Stroke 11", 250-750 psi		
	Cooling System		

Ajax124	Tightening of Foundation Bolts		
Ajax125	Cleaning of Engine & Compressor cooling water jackets		
Ajax126	Inspection/ replacement of Cooling Fan & Water pump Belt		
Ajax127	Inspection/ replacement of radiator fan shaft bearing (if required) eliminating vibration		
Ajax128	Straightening & cleaning of cooler fins		
Ajax129	Inspection/ cleaning of cooler tubes		
Ajax130	Inspection/ repairing of cooling water pump (if required)		
Ajax131	Removal of HP Compressor Pump Cavitation		
Ajax132	Greasing of all Bearings.		
Ajax133	Removal of all leakages		
Ajax134	Cleaning of Fan Blades & Painting of Cooling Fan Housing and Bed Assembly		
	Lubrication System		
Ajax135	Cleaning/ inspection of Force Feed lubricators and replacement of worn parts		
Ajax136	Cleaning/ inspection of Pre lube pump and replacement of worn parts		
Ajax137	Rectification of Level Float Valve operation problem		
Ajax138	Removal of all leakages in the lubrication system		
	Crankcase assembly		
Ajax140	Draining/Flushing Crankcase		
Ajax141	Inspection/ replacement of crank pin bearings (if necessary) and adjust clearances. (Power & compressor piston)		
Ajax142	Inspection/ replacement of cross head pin bearing (if necessary) and adjust clearances. (Power & compressor piston)		
Ajax143	Inspection/ replacement of thrust bearings (if necessary) and adjust clearances		
Ajax144	Inspection/ repair/ replacement of crankshaft (if necessary)		
Ajax145	Inspection/ replacement of lay shaft gear & drive gear on crankshaft (if necessary)		
Ajax146	Cleaning of Breather caps on the crankcase		
Ajax147	Inspection and adjustment of sheaves Alignment		
	Power Cylinder Assembly		
Ajax148	Removal of cylinder heads, Inspection of intake/ exhaust ports and removal of Carbon		
Ajax149	Inspection/ replacement of rod pressure packing		
Ajax150	Inspection/ replacement of worn piston rings and thorough cleaning of piston and ring		
Ajax151	Inspection/ replacement of power cylinder Bodies (if required)		
Ajax152	Inspection/ replacement of piston and piston rod (if required)		
	Compressor Cylinder Assembly		
Ajax153	Inspection/ replacement of compressor piston rod pressure packing, if required		
Ajax154	Inspection/ replacement of compressor variable pocket pressure packing, If required		
Ajax155	Inspection/ replacement of Cylinder liners		
Ajax156	Inspection/ replacement of piston and piston rod, if required		
Ajax157	Inspection/ replacement worn piston rings and thoroughly cleaning of piston ring		
Ajax158	Rebuilding/ replacement of Suction & Disch Valves		
Ajax159	Inspection/ replacement of compressor cylinder body		
Ajax160	Dismantling of both cylinder bodies and Mechanical cleaning of water jackets		
	Fuel System		
Ajax161	Checking of Fuel System and cleaning of inlet Fuel Filter		
Ajax162	Complete overhauling of fuel injection valves		
Ajax163	Inspection/ replacement of hydraulic pumps, if required		
Ajax164	Inspection/ replacement of hydraulic NRV's, if required		
Ajax165	Removal of leakages in the hydraulic system		
Ajax166	Inspection/ replacement of tubes of hydraulic circuit, if required		
Ajax167	Cleaning of hydraulic storage bottle		
Ajax168	Inspection/ replacement of driving Cams of hydraulic pumps, if required		
Ajax169	Inspection of lay shaft and driving Gears		

Ajax170	Inspection of the fuel intake manifold and removal of leakages		
	Air Intake System		
Ajax171	Inspection/cleaning of air filters and replacement, if required		
Ajax172	inspection/Rebuilding of Reed valves, if required		
	Ignition System		
Ajax173	Inspection/ replacement of spark plugs, if required		
Ajax174	Inspection/ replacement of Ignition cables, if required		
Ajax175	Inspection/ replacement of pick up coil, if required		
Ajax176	Inspection/ replacement of ignition coil, if required		
Ajax177	Inspection/ replacement of alternator, if required		
	Other Jobs		
Ajax178	Thorough Cleaning of Fly wheel		
Ajax179	Thorough cleaning of Compressor & skid		
Ajax180	Startup of Compressor after job completion		
Ajax181	Adjustment of Firing timing, if required		
Ajax182	Load testing		
Ajax183	Housekeeping of area after job completion		
	Total		
	G.Total (including tax)		

- Annex C to be provided with “submitted” status and CPR as per rules of KPRA.
- Financial Evaluation will be on full consignment wise (G. Total of all jobs)