Ma	MARS SPACE CONSTRUCTION, LLC	File: Rev:	ENG-Proced-004 A	4
		Date:	06/15/21	
	CONSTRUCTION, LLC	By:		
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Category	Task			
onceptual E		Start	Duration Weeks	End
	Design Basis Review			
	Acquire and Review Site Survey, Topo, and Geotechnical Report Process Simulations			
	Process Simulations Process Flow Diagrams			
	P&ID and Line List Issue for Review			
	Plot Plan Issue for Review			
	Conduct Initial Constructibility Review			
	P&ID and Line List Issue for Approval			
	Plot Plan Issue for Approval			
	P&ID and Line List Issue for Design			
	Plot Plan Issue for Design			
	Flare System Study			
	Tie-in List			
	Bulks Control Estimate			
	Electrical Load List			
	Conceptual Electrical One-line			
	Electrical Area Classification drawings			
	Control System Architecture Plan			
etail Engine	oring			
etali Eligilie	Review Client Provided Packages and Equipment Data			
	Provide Process Data for Instrument Specs			
	Sitewide ESD Equipment Plan			
	Cause/Effect Diagram			
	Process Hazards Analysis (PHA)			
	P&ID and Line List Issue for Construction			
	Plot Plan Issue for Construction			
	Perform Electrical Studies			
	PLC/DCS/ESD Systems I/O List			
	PLC programming/ DCS Configuration			
	HMI Screens/ Reports			
	Spec/Requisition Amine and TEG Treating Package(s)			
	Spec/Requisition Condensate Stabilizer Packages(s)			
	Spec/Requisition Instrument Air & Other Packaged Systems			
	Spec/Requisition Major Vessels/ Towers			
	Spec/Requisition Compressors			
	Spec/Requisition Heat Exchange Equipment			
	Spec/Requisition Plant Flare(s)			
	Spec/Requisition Tanks & Minor Vessels			
	Spec/Requisition Process and Utility Pumps Spec/Requisition PSVs and Tank Vents			
	Spec/Requisition 2" and larger Manual Valves			
	Spec/Requisition Filters, Specialty Items			
	Spec/Requisition Electrical Equipment			
	Spec/Requisition Prefabricated Distribution Center (PDC)			
	Spec/Requisition Automated Valves			
	Spec/Requisition Instrument Tag Items			
	Spec/Requisition Control Systems and HMI			
etail Design	- Area I (XXXXXX)			
	Slugcatcher/ Inlet Separator Foundations Plans, Details, & BOM			
	Piperack Foundations Plans, Details, and BOM			
	Piperack Structural Steel Plans and Details			
	Miscellaneous Pipe Supports Plans and Details			
	Area U/G Process and Utility Piping Model			
	Area A/G Process and Utility Piping Model			
	Area Constructibility Review			
	Area U/G Isometrics & BOM			
	Area A/G Isometrics & BOM			
	Area Smallbore Piping List			
	Area Grounding Plan			
	Area Cable Tray Plan & Details			
	Area Lighting Plan			

Typical Gas Plant Project Engineering Task Template for Scheduling

Category	Task				
	Area Electrical Plan				
	Area Instrument Plan				
	Area Electrical Heat Trace Isometrics & BOM				
Detail Design- Area II (XXXXXXX)					
	Piperack Foundation Plans, Details, and BOM				
	Cryo Plant Equipment Foundation Plans, Details, and BOM				
-	Amine & TEG Treater Equipment Foundation Plans, Details, and BOM				
	Piperack Structural Steel Plans and Details Area Miscellaneous Pipe Supports Plans and Details				
	Area U/G Process and Utility Piping Model				
	Area A/G Process and Utility Piping Model				
	Area Constructibility Review				
	Area Rack Loading Plan & BOM				
	Area U/G Isometrics & BOM				
	Area A/G Isometrics & BOM				
	Area Smallbore Piping List				
-	Area Grounding Plan				
	Area Cable Tray Plan & Details				
-	Area Lighting Plan				
	Area Electrical Plan Area Instrument Plan				
	Area Electrical Heat Trace Isometrics & BOM				
Detail Design	Area III (XXXXXXXX)	1			
	Compressor Foundation Plans, Details, & BOM				
	Compressor Building General Arrangement Plan and Sections				
	Compressor Building Supports Foundation Plan, Details, and BOM				
	Area U/G Process and Utility Piping Model				
	Area A/G Process and Utility Piping Model				
	Sleeper Rack Foundation Plans, Details, and BOM				
	Area Miscellaneous Pipe Support Plans and Details				
	Compressor Discharge Coolers Foundation Plans and Details				
	Area Constructibility Review				
-	Area U/G Isometrics & BOM				
	Area A/G Isometrics Issue for Pulsation Study Pulsation Study and Pipe Stress Analysis				
	Area A/G Isometrics Issue for Construction				
	Area Smallbore Piping List				
	Area Grounding Plan				
	Area Cable Tray Plan & Details				
	Area Lighting Plan				
	Area Electrical Plan				
	Area Instrument Plan				
	Area Electrical Heat Trace Isometrics & BOM				
Detail Design-	Area IV (XXXXXXXX)				
	Site Grading/Drainage Plan Site Fencing Plan				
	Flare and Flare KO Foundations Plans, Details, and BOM				
	Tank Foundations Plans, Details, and BOM		<u> </u>		
	OSBL Piperack Foundation Plans, Details, and BOM				
	Instrument Air and Analyzer Bldgs Foundation Plans, Details, & BOM				
	PDC and Control Building Foundation Plans, Details, and BOM				
	OSBL Piperack Structural Steel Plans and Details				
	Area Miscellaneous Pipe Support Plans and Details				
	Area U/G Process and Utility Piping Model				
	Area A/G Process and Utility Piping Model				
	U/G Electrical Ductbank Plan and Stub-up Details (all areas)	+			
	Area Constructibility Review Area Rack Loading Plan & BOM				
	Area U/G Isometrics & BOM	+			
	Area A/G Isometrics & BOM				
	Area Smallbore Piping List				
	Key Plan & Area Grounding Plan		<u> </u>		
	Key Plan & Area Cable Tray Plan & Details	1			
	Key Plan & Area Lighting Plan				
	Key Plan & Area Electrical Plan				
	Key Plan & Area Instrument Plan				
	Area Electrical Heat Trace Isometrics & BOM				
	PDC Building Electrical Plan Drawings				
<u> </u>	MV One-Line Diagrams & MCC/SWGR Elevations				

Typical Gas Plant Project Engineering Task Template for Scheduling

Catagory	Teek		
Category			
	LV One-Line Diagrams & MCC/SWGR Elevations		
	Motor Schematics		
	UPS Wiring Diagram		
	LV, UPS, and 24VDC Power Panel Schedules		
	Lighting and Heat Trace Control Panel Schematics and Details		
	Power & Control Cable Schedule		
	Junction Box and Remote I/O Panel Details		
	PLC/DCS Panel Arrangement and Details		
	PLC/DCS I/O Wiring Diagrams		
	ESD Panel Wiring Diagram and Details		
	Compressor, Heater Local Panel I/F Wiring Diagrams		
	Network Equipment and Cable Details		
	Instrument Installation Details		
	Instrumentation and Network Cable Schedule		
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