

JOB SAFETY ANALYSIS (JSA) FORM					Rev 1 Feb 24
Unit/Area:	Specific Location:	Work Authorizer (if applicable):	Supervisor / Work Lead:	Date:	
Job Description for Tasks with High Potential Consequence (i.e., life-altering injuries or Consequence Level 1 process safety events including HC 1&2 events) (include Equipment Numbers as Practical):					
Check LSRA(s) that apply and review Start Work Check(s). Complete Page 2 with any additional task steps with high potential consequence or if there is no applicable LSRA.					
 Confined Space Entry Obtain authorization before entering a confined space ☐		 Bypassing Safety Controls Obtain authorization before overriding or disabling safety controls ☐		 Energy Isolation Verify isolation and zero energy before work begins ☐	
<ol style="list-style-type: none"> 1. I confirm energy sources are isolated 2. I confirm the atmosphere has been tested and is monitored 3. I check and use my breathing apparatus when required 4. I confirm there is an attendant standing by 5. I confirm a rescue plan is in place 6. I obtain authorization to enter 		<ol style="list-style-type: none"> 1. I understand and use safety-critical equipment and procedures which apply to my task 2. I obtain authorization before: <ul style="list-style-type: none"> • Disabling or overriding safety equipment • Deviating from procedures • Crossing a barrier 		<ol style="list-style-type: none"> 1. I have identified all energy sources 2. I confirm that hazardous energy sources have been isolated, locked, and tagged 3. I have checked there is zero energy and tested for residual or stored energy 4. I never remove or tamper with energy control devices without authorization 5. I confirm equipment is back to safe operating condition prior to re-energizing 	
 Safe Mechanical Lifting Plan lifting operations and control the area ☐		 Hot Work Control flammables and ignition sources ☐		 Working Around Mobile Equipment See and be seen; maintain a safe distance ☐	
<ol style="list-style-type: none"> 1. I confirm that the equipment and load have been inspected and are fit for purpose 2. I only operate equipment that I am qualified to use 3. I establish and obey barriers and exclusions zones 4. I never walk under a suspended load 5. I understand the lift plan prior to starting work and keep hands off load unless authorized 6. I establish and maintain communication with lifting and rigging personnel 		<ol style="list-style-type: none"> 1. I identify and control ignition sources 2. Before starting any hot work: <ul style="list-style-type: none"> • I confirm flammable material has been removed or isolated • I obtain authorization 3. Before starting hot work in a hazardous area, I confirm: <ul style="list-style-type: none"> • A gas test has been completed • Gas will be monitored continually 		<ol style="list-style-type: none"> 1. I plan work to separate workers and mobile equipment 2. I only operate mobile equipment if qualified and use spotters where required 3. I verify safety devices are functional on mobile equipment 4. I establish clear means of communication with equipment operator 5. I stay out of the equipment's exclusion zone while in operation 6. I confirm controls are in place to prevent unintentional movement of mobile equipment and/or loads 	
 Breaking Containment/OPE Manage ignition sources and exposure to energy & hazardous substances ☐		 Driving Follow safe driving rules ☐		 Work Authorization Work with a valid permit when required ☐	
<ol style="list-style-type: none"> 1. I verify opening/break location(s) 2. I confirm energy isolation is complete 3. I manage ignition sources and confirm gas testing is completed when required 4. I use appropriate PPE and defensive behaviors when opening process equipment 		<ol style="list-style-type: none"> 1. I always wear a seatbelt 2. I do not exceed the speed limit, and reduce my speed for road conditions 3. I do not use phones or operate devices while driving 4. I am fit, rested and fully alert while driving 5. I follow journey management requirements 		<ol style="list-style-type: none"> 1. I have confirmed if a permit is required 2. I am authorized to perform the work 3. I understand the permit 4. I have confirmed that hazards are controlled, and it is safe to start 5. I stop and reassess if conditions change 	
				 Line of Fire Keep yourself and others out of the line of fire ☐	
				<ol style="list-style-type: none"> 1. I position myself to avoid: <ul style="list-style-type: none"> • Moving objects • Vehicles • Pressure releases • Dropped objects 2. I establish and obey barriers and exclusion zones 3. I take action to secure loose objects and report potential dropped objects 	
Confirm these safeguards are in place and effective prior to starting work using the applicable SWC(s). During the task, if safeguards are no longer in place or effective, STOP Work.					

Are there any additional high potential consequence hazards present?

Electrical Energy 	Moving Objects 	Lighting & Visibility 	Simultaneous Operations (SIMOPS) or Stacked Work 
Stored Energy 	Hazardous Substances 	Noise & Vibration 	
Thermal Energy 	Radiation 		

High Potential Consequence Task Steps (Description)	Check off to indicate Hold Point	POTENTIAL HAZARDS & CONSEQUENCES Include applicable Error Prone Situations and Triggers	SAFEGUARDS (Actions & Physical Safeguards) Eliminate or Mitigate the hazards
	Hold Point ☐		
	Hold Point ☐		
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**Confirm these safeguards are in place and effective prior to starting work using this JSA.
During the task, if safeguards are no longer in place or effective, STOP Work.**

Lessons Learned (as needed): What improvements should be made for future work? Discussion leader to provide feedback to update planning package.

LAI HAZARD ANALYSIS

Project Number:		Project Task: Forklift Operation				Location:					
Prepared By:			Date:		Reviewed By:				Date:		
Ref. Number	High Potential Consequence Task Steps	POTENTIAL HAZARDS & CONSEQUENCES Include applicable Error Prone Situations and Triggers	Target Check off to indicate Hold Point ☐	Preliminary Risk Assessment			Control Type	SAFEGUARDS (Actions & Physical Safeguards) Eliminate or Mitigate the hazards	Final Risk Assessment		
				H	M	L			H	M	L
1	Forklift operation around the GOLD project      	Inattention during vehicle operation resulting in collision and injury to personnel	P		X		D/E /S/ W/A	Prior to starting a task, Evaluate the Lifesaving Rules and actions (LSRA) start work Checks (SWC) that may apply to that task review START/STOP work expectations and implement, Verify & Validate (V&V) the appropriate behaviors and or control Safeguards per the ExxonMobil PSMS and site HSE Procedures during the pre-task brief			X
							A	Ensure JSA for specific LAI tasks address proper hazard control methods			
							A	Only authorized personnel shall be allowed to operate a vehicle on site.			
							A	Ensure all employees required to drive have completed defensive driving training.			

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							A	All personnel shall be made aware of the site driving rules including the speed limit (10 mph).			
							S/A	Seat belts shall be worn at all times.			
							A	No cell phone or radio use allowed while operating a vehicle.			
							D/S /A	An entry permit (level 1 hot work) will be completed prior to allowing equipment entry into the process units including a gas test and continuous LEL monitoring as required. UTV's and company pickup trucks are not allowed within the unit boundaries.			

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				H	M	L			H	M	L
2	Forklift operation around the GOLD project	Working in close proximity to large mobile equipment. Large equipment working in close proximity to live process systems. Working in close proximity to cranes making lifts overhead.	P/F ☐	X			D/E /S/ W/A A A/W W/A A	Prior to starting a task, Evaluate the Lifesaving Rules and actions (LSRA) start work Checks (SWC) that may apply to that task review START/STOP work expectations and implement, Verify & Validate (V&V) the appropriate behaviors and or control Safeguards per the ExxonMobil PSMS and site HSE Procedures during the pre-task brief Ensure JSA for specific LAI tasks address proper hazard control methods Barricade or cone working area of heavy equipment. Have spotter located to direct foot or vehicle traffic around equipment. When working in close proximity to live systems, use a spotter when maneuvering equipment.		X	

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				H	M	L			H	M	L
							W/A /S W/A	Barricade off area where lifts will be swung over. Before load is lifted, have a spotter clear the area where the lift is being swung utilize whistles and horns.			
3	Inspect Forklift (360 inspection)	Slips, trips, and falls due to slippery surface (ice/mud) on ground or on steps of Forklift. Pinch Points (i.e., standing between a stationary object and the equipment while it is moving, etc.) Static hazard while refueling Burns from motor	P/F ☐		X		A A/D A	Look for slippery surfaces and clean up debris as it is seen to eliminate the hazard. Use three-point contact as you mount and dismount the equipment. Use the door handle to open and close door/Do not think that you can pull your hand away in time. Use handrails while getting on or off the forklift. Keep steps clear of any mud or debris that could cause a slip. Situational awareness, keep body parts away from all pinch point/line of fire Areas.			X

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				H	M	L			H	M	L	
							A/S	Utilize bonding cable while refueling, only authorized and trained personnel shall refuel equipment.				
							A	Do not touch motor while its hot. Inspect motor while its cool.				
4	Positioning/Driving Forklift	Other crafts in area, Hitting pedestrian and/or vehicles. Fire/Explosion Pinch Points (i.e., standing between a stationary object and the equipment while it is moving, etc.) Pinch point in forks Loss of load or falling material/equipment Uneven driving surfaces Forklift inadvertently rolling from non-level ground	P/F ☐				A/W	Use a spotter in tight places/Warn others by horn or voice/Do not move tractor unless sure it is clear/Only certified operators to operate the equipment.			X	
							A	Ensure that the proper Work permit is attained before operating heavy equipment in the area.				
							A/D	When getting off forklift: turn off motor, set the parking brake and place fork tines on the ground				
							A	Follow all traffic signs and speed limits. Stop and yield to emergency vehicles/ pedestrians				

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				H	M	L			H	M	L
							A/D	Keep travel path clear at all times and maintain a stable speed on uneven terrain.			
5	Lifting material with forks 1. Approach load 2. Line up forks 3. Extend forks under load 4. Tilt back slightly 5. Retract boom 6. Lower boom 7. Drive Forklift to location 8. Set Material 9. Tilt forks slightly forward	Struck by equipment. Struck by load. Rigging/Equipment failure Unbalanced load Pinch Points (i.e., grabbing pipe by the end with fingers inside, standing between forklift and a stationary object, etc.) Muscle Strain Machine Failure Turning Forklift over due to overloading	P/F ☐	X			A/D A A A	Do not put your body or any part of it between a moving object and a fixed one/Maintain eye contact with operator/Get the operator's attention before walking behind him. Inspect equipment prior to use, remove defective equipment from service. Ensure a spill kit is available in case of a leak. Inspect rigging/equipment before use. Do not use damaged rigging even for non-lifting purposes. The tendency is to grab it and use it when we are in a "hurry". Daily forklift inspections conducted, and inspection forms filled out at the start of shift, any problems will be reported.		X	

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							A/S	Proper PPE will be used for work activities. (Hard hat, safety glasses, hand protection, etc.) Do not lift if we are unsure of the rigging configuration. "Coach and accept coaching".			
							A	Do not put your body or any part of it between a moving object and a fixed one/Maintain eye contact with operator.			
							A/D	Let the equipment do the work/Re-rig if necessary/Get help if it is heavy or awkward/Lift with your legs and not your back.			
							A/D	Check the load charts to ensure that overloading does not occur/perform critical lift plan for any lift that involves multiple pieces of equipment or is more than 75% of the capacity of the equipment being used/Ask questions if unsure of any lift.			

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				H	M	L			H	M	L	
							A	Position the forklift as close as possible to the material being lifted. Place forks under the load, tilt back and lift only as high as necessary. Load should be carried as low as possible when driving forklift.				
							A/S	Ensure all loads are properly secured/strapped to the mast				
							A/D	Never rig from fork tines, utilize the mast, designated rigging point/hook, or manufactured fork tine rigging attachment and proper rigging				
6	Operating forklift to remove or place timber mats or move associated equipment	Forklift failure due to mechanical failure. Potential for striking people or equipment while moving forklift around the area	P/F/E ☐		X		A/D	Operator will follow all forklift operating requirements and complete a pre use inspection before use			X	
							A/W	Utilize a spotter/flagger to escort forklift.				

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		Crushing potential from moving timber mats or equipment with forklift Crushing hazard when staking mats					A A/D	Remian is sight of operator while flagging and out of the line of fire. If unable, stop operations. Do not walk or work between load and fixed object or forklift. Keep feet and hands off of mats while placing mats. Do not stack mats higher that 6'. Do not place yourself on the backside of mats when stacking; mats could shift/ slide off unexpectedly. Stay in sight of operator while flagging.			
7											

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