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

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

Bypassing Safety Controls ☐

Obtain authorization before overriding or disabling safety controls

1. I understand and use safety-critical equipment and procedures which apply to my task
2. I obtain authorization before:
   - Disabling or overriding safety equipment
   - Deviating from procedures
   - Crossing a barrier

Energy Isolation ☐

Verify isolation and zero energy before work begins

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

Excavation ☐

Obtain authorization before digging or entering excavations

1. I obtain authorization prior to performing excavation / trenching / ground disturbance activities
2. I confirm underground utilities and structures are located, de-energized or protected
3. I confirm hazard controls and confined space entry as required
4. I monitor for changing conditions and exit as appropriate

Safe Mechanical Lifting ☐

Plan lifting operations and control the area

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

Hot Work ☐

Control flammables and ignition sources

1. I identify and control ignition sources
2. Before starting any hot work:
   - I confirm flammable material has been removed or isolated
   - I obtain authorization
3. Before starting hot work in a hazardous area, I confirm:
   - A gas test has been completed
   - Gas will be monitored continually

Working Around Mobile Equipment ☐

See and be seen; maintain a safe distance

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

Working at Height ☐

Protect yourself against a fall when working at height

1. I inspect my fall protection equipment before use
2. I secure tools and work materials to prevent dropped objects
3. I tie-off 100% to approved anchor points while outside protected area
4. I have validated prompt rescue capability when wearing fall protection
5. I will follow safe work practices when climbing, descending or working from ladders

BreakingContainment/OPE ☐

Manage ignition sources and exposure to energy & hazardous substances

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

Driving ☐

Follow safe driving rules

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

Work Authorization ☐

Work with a valid permit when required

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

1. I position myself to avoid:
   - 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 <u>additional</u> 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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	Hold Point ☐		

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:** Surveying					**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	General work activities (housekeeping) within and around the GOLD project	Slips, trips, and falls due to poor housekeeping resulting in personnel injury	P ☐		X		D/E /S/ W/A A A/D D	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. Shop work areas shall be set up and organized to minimize the buildup of materials and eliminate slip/trip hazards. Use pre-job stretching and flexing exercises.			X

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				H	**M**	**L**			**H**	**M**	**L**
							A/E A/D A/D /E A	Proper waste management receptacles shall be utilized to control trash, debris, and scrap material. Access/ egress points and walkways shall be kept clear at all times. Extension cords, welding leads, and other cables shall be routed overhead, when possible, in a manner that does not create a slip/trip hazard. Regular supervisor walkthroughs should identify and eliminate housekeeping hazards and ensure proper housekeeping methods are being implemented throughout the work shift.			

Target: **P**=Personnel, **F**=Facilities and equipment, **E**=Environment

Control Type: **D**=Design hazard out or minimize, **E**=Engineering control, **S**=Safety device, **W**=Warning device, **A**=Administrative control

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				H	**M**	**L**			**H**	**M**	**L**
							E/W A A/W /E A/D	All employees are to correct (or notify their supervisor) if they observe uneven walking/working surfaces. Care should be exercised, when surveying overhead areas. All holes/floor opening eliminated or protected with hard barricades Complete a Last Minute Risk Assessment (LMRA) prior to beginning each task			
2	Interfacing with other crafts, contractors, and Customer entities within and around the GOLD project	Injury or event resulting from Miscommunication	P ☐		X		D/E /S/ 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		X	

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	 						A A A A A	Ensure JSA for specific LAI tasks address proper hazard control methods. Utilize the existing permitting process. Utilize the JSA process and communicate continuously with coworkers, contractors and ExxonMobil personnel and be aware of other work being performed in close proximity. Ensure information from regular coordination meetings with unit operators is communicated. Ensure work packages are evaluated well in advance to identify any potential SIMOPS with other contractors or planned Unit activities. Regular supervisor and management walkthroughs and SIMOPS audits			

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				H	**M**	**L**			**H**	**M**	**L**
							A/D	Complete a Last Minute Risk Assessment (LMRA) prior to beginning each task			
3	Pedestrian Traffic 	Pedestrians being struck my motor vehicle or mobile equipment	P ☐		X		A D A A/W	Controlled speed limit of 10 MPH within all project areas Designated crosswalk/ crossing areas to be evaluated on a regular basis. Limit vehicle and mobile equipment access within pedestrian travel paths A spotter shall be used to assist during vehicle movement in congested areas and while backing.			X

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4	Surveying Set up auto level Take shots, mark readings on ground	Slips, trips, and falls due to materials, debris, or mud on ground. Muscle Strain from lifting tools and equipment Pinching hand or finger in tripod Cuts to hands on sharp edges that may exist on tripod Falls due to edge of excavation collapsing Being hit by heavy equipment Bites from snakes, insects, or feral animals Inhaling paint fumes	P ☐		X		A/D A/S A S A A/D	Look for slippery surfaces and clean up debris as it is seen to eliminate the hazard/Stage materials in a neat manner/maintain walkway. Get help with awkward or heavy objects. Lift using your legs and not your back. Do not put fingers near sliding parts on tripod. Wear required gloves when handling materials and equipment that have the potential for sharp objects/Check tripod for burrs and remove Do not stand too close to edge of excavation/Stay at least two feet from edge and look for fissuring of soil. Make eye contact with equipment operator (A wave and a smile helps to get their attention)/			X

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							A/S	Wear bright colored vest when working in heavy traffic areas. follow established walkways.			
							A	Examine grassy, congested areas before walking through/Do not place your hands or other parts of your body in blind spots			
							A/D /S	Only marking paint use in well-ventilated areas/Read the SDS and following manufacturer's instructions.			

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