TITLE: PERFORM SERVICE-Spot Equipment			HALLIBURTON MANAGEMENT SYSTEM		
PSL Production Enhancement	**REGION** Global	**Sub PSL / Function**	**DOCUMENT NUMBER:** **RA-GL-HAL-PE-007**		
OWNER Global PASQ	**APPROVED BY:** Global PASQ	**REVIEW/REVISION BY:** PE HMS Team	**REVIEW/REVISION DATE:** 31.OCT.2018	**REVISION No:** 6.0	**PAGE:** See Footer

Description: Spotting Equipment **Utilize qualified personnel.**
Minimum Standard PPE to be worn at all times, (coveralls, steel toe boots, safety glasses, hard hat)

HAZARD DESCRIPTION	CAUSE	EFFECTS	ARGET	Risk Assessment Existing EV	OB	PC	Existing Controls and Countermeasures and or Recommendations to Lower risk	Risk Assessment After EV	OB	PC
Lack of access	Equipment too close together Location too small	Bodily injury	P	II	C	2	Spot equipment to allow unobstructed movement of personnel Rig lines to allow unobstructed movement of personnel Communicate with customer location size needs	II	D	3
Vehicle accident	Lack of spotters Human error	Bodily Injury	P	I	C	1	When possible, visit location prior to job to determine best access	I	E	3
		Equipment / Material damage	E	II	C	2	Spot equipment as far off shoulder as possible and where it can be accessed from side location Set out reflective triangles and use flashing caution lights Assign flagger to slow traffic Beware of power lines Survival driver training. Follow outlined procedure Inform personnel of previous hazards If Driver loses sight of Spotter, He should stop immediately	II	D	3

TITLE: PERFORM SERVICE-Spot Equipment			HALLIBURTON MANAGEMENT SYSTEM		
PSL Production Enhancement	**REGION** Global	**Sub PSL / Function**	**DOCUMENT NUMBER:** **RA-GL-HAL-PE-007**		
OWNER Global PASQ	**APPROVED BY:** Global PASQ	**REVIEW/REVISION BY:** PE HMS Team	**REVIEW/REVISION DATE:** 31.OCT.2018	**REVISION No:** 6.0	**PAGE:** See Footer

Description: Spotting Equipment **Utilize qualified personnel.**
Minimum Standard PPE to be worn at all times, (coveralls, steel toe boots, safety glasses, hard hat)

HAZARD DESCRIPTION	CAUSE	EFFECTS	ARGET	Risk Assessment Existing EV	OB	PC	Existing Controls and Countermeasures and or Recommendations to Lower risk	Risk Assessment After EV	OB	PC
Moving Equipment	Operator Error Poor Visibility Pinch Points Improper PPE Improper Rig up Shifting Load Equipment Failure Weather Conditions No Pre-job meeting	Bodily Injury Equipment / Material damage Environmental contamination	P E ENV	I II II	C C C	1 2 2	Experience/Training/Certification Spotter--Reverse if necessary/MORE THAN ONE IF NECESSARY Proper load out Communication Inspect equipment--shackles, slings, chains/check date tags on equipment to be sure it has been inspected Proper PPE for employees, as well as third party personnel Check for drain plug Proper control of equipment. Preventative maintenance of equipment Stay within operating limits of equipment Supervisor discretion with crews Pre-job meeting and checklist Proper positioning Authorized Personnel Only If driver loses sight of spotter, STOP vehicle immediately Chock wheels of parked trucks	I II II	E D D	3 3 3
Towing (if required)	Unstable ground Improper hook-up Operator error Mech. failure Poor communication Poor lighting / visibility Other equipment on lease	Bodily Injury Equipment / Material damage Environmental contamination	P E ENV	II II II	B B B	1 1 1	**Perform a hazard assessment to determine and address hazardous conditions, terrain and number of trips needed** **Communicate assessment with customer and 3rd party contractor who may be providing towing services for customer.** Trained operators Planning & good communication Proper connecting / tow devices (i.e. slings, clevis, etc.) Adequate lighting Use spotter to guide around equipment on lease Clear area of personnel not required to perform task Use designated hook-up on unit or advise supervisor Stay clear of all towing cables or straps (adequate distance for length of cable / chains and conditions)	II II II	D D D	3 3 3

TITLE: PERFORM SERVICE-Spot Equipment			HALLIBURTON MANAGEMENT SYSTEM		
PSL Production Enhancement	**REGION** Global	**Sub PSL / Function**	**DOCUMENT NUMBER:** RA-GL-HAL-PE-007		
OWNER Global PASQ	**APPROVED BY:** Global PASQ	**REVIEW/REVISION BY:** PE HMS Team	**REVIEW/REVISION DATE:** 31.OCT.2018	**REVISION No:** 6.0	**PAGE:** See Footer

Description: Spotting Equipment **Utilize qualified personnel.**
Minimum Standard PPE to be worn at all times, (coveralls, steel toe boots, safety glasses, hard hat)

HAZARD DESCRIPTION	CAUSE	EFFECTS	ARGET	Risk Assessment Existing EV	OB	PC	Existing Controls and Countermeasures and or Recommendations to Lower risk	Risk Assessment After EV	OB	PC
Operation of vehicles	Other equipment on lease Ground conditions Adverse weather / poor visibility Backing up Guy wires, electrical lines, flow lines Wellhead Poor lighting Poor communication Operator error Not using a spotter 3rd party operators	Bodily Injury Equipment / Material damage Environmental contamination	P E ENV	II II II	B B B	1 1 1	Trained operators Discuss potential hazards & hand signals prior to spotting equipment Be aware of and discuss location and height of all lines on lease Ensure proper lighting for visibility Assess lease conditions & determine if tire chains or cat should be used Clear area of personnel not needed to perform task Ensure back-up alarms are working & horn is sounded every time unit is put in motion (forward or reverse) Use caution & proper communication with spotter near well head and fluid tanks Use spotter to back up and guide all equipment	II II II	D D D	3 3 3
Hazardous materials	Improper operation of equipment Improper placement & storage of materials Improper handling of materials Failure to secure (lockouts) Working with chemicals (i.e. HCL) Lack of proper PPE / emergency equipment Ignition sources	Bodily injury Absorption, inhalation Ingestion Environmental spill or release Fire & explosion	P P ENV E	II III III II	C B B B	2 2 2 1	Refer to SDS for PPE requirements (i.e. gloves, respirator, wet suit, goggles, face shield) Ensure proper stacking & handling of materials Trained personnel (WHMIS) Remove all sources of ignition Trained personnel on spill prevention, response & remediation Provide necessary resources (i.e. spill kits) Trained operators (i.e. forklift) Ensure all lockout devices are in place upon entering and exiting warehouse Know location of emergency shower / eye wash station	II III III II	D C C D	3 3 3 3

TARGET: **P**: Personnel **E**: Equipment **DT**: Down Time **DC**: Data **ENV**: Environment **I**: Interface

RISK ANALYSIS MATRIX

		Potential Consequences			Probability Rating					
Hazard Severity Category	Descriptive Word	Personnel Illness/Injury	Equipment Loss(s)	Environmental	A Frequent	B Reasonably probable	C Occasional	D Remote	E Extremely Improbable	F Impossible
I	Catastrophic	Fatality or Permanent Disabling Injury or illness	>$1,000.000	Long term (5 years or greater) environmental damage or requiring $1,000.000 or more to correct and / or in penalties		1				
II	Critical	Severe Injury or Illness	$200.000 to $1,000.000	Medium length (1-5 years) environmental damage or requiring $200.000 - $1,000.000) to correct and / or in penalties			2			
III	Marginal	Minor Injury or Illness	$10.000 to $200.000	Short term (less then 1 year) environmental damage or requiring $10.000 - $200.000 to correct and / or in penalties				3		
IV	Negligible	No injury or Illness	<$10.000	Minor environmental damage that can be readily repaired or requiring less than $10.000 to correct and / or in penalties						

Note the number 1, 2, 3… these numbers represent the "Risk Priority Code"

Probability Rating

Level	Description
A	Frequent: Likely to occur repeatedly during activity / operation
B	Reasonably Probable: Likely to occur several times
C	Occasional: Likely to occur sometime
D	Remote: Not likely but possible
E	Extremely Improbable: Probability of occurrence cannot be distinguished from zero

Risk Priority Code (RPC)

Code	Action Required
1	High Risk: Imperative to suppress risk to lower level
2	Medium Risk: Operation may require waiver endorsed by management
3	Operation Permissible

Note: Risk Priority Code of less than 3 is **NOT ACCEPTABLE** for hazard that target personnel

Targets:	
P	Personnel
E	Equipment
DT	Downtime
DC	Data
ENV	Environmental
I	Interface

HALLIBURTON

Instructions for Risk Analysis Matrix

Step 1: After identifying a significant hazard, first consider the Potential Consequences. For example, what if the accident occurs.

Step 2: After considering the Potential Consequences such as Severe Illness or Injury, identify the Hazard Severity Category (for example, II)

Step 3: Now consider the Probability Rating. If it is Reasonably Probable that the accident would occur, the rate would be "B"

Step 4: Follow the Hazard Severity Category (II) across the line until it dissects with the Probability Rate (B). This shows a Risk Priority Code (RPC) of "1".

Step 5: RPC 1 is unacceptable. **STOP THE JOB!** Institute controls to reduce the risk to an acceptable level with an RPC of 3.

Contact your manager if the risk can not be reduced to RPC 3!

Note: When the RPC is 2 and the hazard impacts people, this is still an unacceptable level of risk.

NOTES:	Revision	
31.OCT.2018	6	Annual review, no revisions.
25.APR.2017	5	Annual review, no revisions.
OCT.2015	4	Annual review, no revisions.
SEPT.2014	3	Annual review. Revisions in Hazard: Towing
SEPT.2013	2	Annual review. No revisions
SEPT.2012	2	no revisions
SEPT.2011	2	
SEPT.2010	1	
Original Document	**1**	**May, 2009**