

**JOB SAFETY ANALYSIS WORKSHEET**

JOB / TASK			PAGE	OF
<b>Rig To and Cement Casing ( Cementing with high stick up ) ( Casing more than 3m above floor )</b>			1	2
RIG No.	Rig #	SUPERVISOR	DATE	
		Driller	11/16/04	
ANALYSIS MADE BY / REVIEWED WITH			JSA NUMBER	
Drill Crew				
JOB STEPS	POTENTIAL HAZARDS	STEPS TO PREVENT HAZARDS OR INJURIES	DATE JSA REVIEWED	
1 Review JSA.	Misunderstanding.	Clarify job and associated hazards and safety concerns.		
2 Hold Pre-job meeting with cementers/crews.	Misunderstanding.	Everyone must pay close attention to ensure they understand clearly their role and responsibility during the cement job and job specifics.		
3 Stop circ. & remove Top Drive from casing.	Pinch points & awkward equipment.	Two or more persons to perform task. DO NOT stand in front of person swinging hammer.		
	Congested area and becoming struck by.			
4 Hook up steel lines and chicksans.	Pinch points & crushing lines failing under pressure. Improper hookup not allowing reciprocating of the casing, causing a poor cement job.	Assist cementers in assembling their iron. Stay clear of person using hammer. Ensure that first chicksans has safety cable installed and attached to bails. Casing is reciprocated and free movement of chicksans is tested prior to circ.		
5 Pressure test lines.	Equipment failing under high pressures.	Signs installed near all lines under pressure. Crews/personnel not required are assigned to designated areas away from work. Lines are checked for leaks from a distance and from watching pressure gauges.		
6 Mix & pump cement.	Serious injury from high pressure line or catastrophic equipment failure. Casing hydraulicing from hole, causing injury. Burns from cement splashing on skin.	Lines were pressure tested prior to job and safety cables are utilized. Overpressure shutdown switches are used on cementing units. Chains and boomers are employed prior to start of displacement. Wear proper PPE and have water available to wash from skin immediately. Crews/personnel not required are assigned to designated areas away from work. Stay away from cement. Pump out line in catch tank.		
7 Lock out top drive.	Accidentally hit wrong control, rotary, hoist.	Give instruction to personnel on floor that top drive rotary is locked out. Proceed to tear out chicksans.		
8 Disconnect lines with tugger.	Tugger directions. Injury from someone watching in line of fire of chicksan with tugger.	Give instruction of next step that top drive lock out will be engaged. Stand clear.		
9 Unscrew casing nubbin drive from casing string.	Cement on air could come out of casing while casing nubbin screwed out.	Stand clear of rotating top drive. Air or cement could come out of casing, landing on skin. Wear proper PPE. Have available water to wash.		