

JOB SAFETY ANALYSIS



Activity Name: Soft Soil Investigations (Auger drilling)		Activity Number:			
Activity Description & Purpose: Soil drilling using augers. Drilling using Hollow Stem Augers (HSA) or 4" solid augers is an in situ testing method used to determine the geotechnical engineering properties of soils and delineating soil stratigraphy.					
Date Prepared: 04/01/2009					
Typical Equipment		Typical Crew Size:	Typical Material		PPE Required
Description	Class Code		Description	Class Code	
PU 4X4	10	3 to 11 (Crew sizes may vary due to different site conditions such as on road, off road drilling, winter conditions, summer conditions, day time or night time drilling.)	n/a	n/a	Safety Boots, Hardhat, ReflectORIZED Vest, Safety Glasses, Dust Mask, Hearing Protection, Appropriate Gloves
Drill Rig	942				
Drill/Truck Mounted Trailer - Lowboy	945				
(If Night Drilling) Light Plant	913				
(If Traffic Control is needed) Arrow Board/VMB	902-903				
Sequence of Job Tasks	Potential Hazards	Safe Job Procedures		Never	
1) Preplan	NA	Orientation - Safety Meetings - Tailgate Talks. Develop Traffic Control Plan and discuss it with everyone involved. Notify the Traffic Management Center and Public Relations, Utilize Uniformed Law Enforcement when available.		Use unsafe equipment	
2) Underground and Overhead Utilities	Buried power, gas & water lines, fibre optics, overhead lines	Insure UNCC clearance and non-member utilities are contacted and cleared			
2) Pretrip	Tripping, Falling, Pinching, Crushing, Burns, Lifting, Bending, Pulling, Twisting	Always perform equipment inspections before and after operations (pre and post)		Lift with your back, no loose clothing	
3) Loading Equipment	Backing truck or equipment into objects/ people or off the side of a trailer. Unsecured loads, Tripping, Falling, Pinching, Crushing, Moving Parts, Burns, Lifting, Bending, Pulling, Twisting	If using ATV Drill Rig... Use a spotter. Do a walk around. Proper loading/ unloading of equipment. Secure loads. Display appropriate warning signs. Wear appropriate PPE- if using Truck mounted drilling - be sure all transported equipment and tools are properly secured.		Load equipment without a spotter. Travel with unsecured loads	
4) Traffic Control Setup	Tripping, Falling, Pinching, Crushing, Moving Parts, Burns, Lifting, Bending, Pulling, Twisting, Backing equipment into objects/ people, Traffic Worn/faded/dirty traffic control devices Getting struck by traffic or equipment Signs blowing over	Follow your traffic control plan (MHT) and insure the plan is on location. Mark all overhead obstructions with cones, signs, or flags. Always use attenuator trucks when available and TEST your plan and insure it is working properly. Use clean and legible traffic control devices Use identified escape routes in your traffic control plan - always have a set of eyes watching traffic Use sandbags		Set up traffic control without an approved plan, lift with your back Never turn your back to oncoming traffic	
5) Perform Task	Tripping, Falling, Pinching, Crushing, Moving parts, Flying debris, Noise, Dust, Backing truck/ equipment into objects/ people, Overhead & Buried Utilities/ bridges/ signs/ obstructions, Weather- lightning/ heat/ Hazardous Materials	Use trained personnel to operate equipment. Follow all procedures outlined in the Driller Safety Handbook.		Operate unsafe equipment. Work in an unsafe/ negligent manner	
6) Traffic control removal	Tripping, Falling, Pinching, Crushing, Moving Parts, Burns, Lifting, Bending, Pulling, Twisting, Backing equipment into objects/ people, Traffic	Remove signs and other safety devices in accordance with Methods of Handling Traffic. Always use attenuator trucks when available, notify the traffic management center and public relations when work is completed, utilize law enforcement when available, wear appropriate PPE		Take your eyes off traffic	
7) Unloading equipment	Backing truck or equipment into objects/ people, Unsecured loads, Tripping, Falling, Pinching, Crushing, Moving Parts, Burns, Lifting, Bending, Pulling, Twisting	Use a spotter. Do a walk around. Proper unloading of equipment. Wear appropriate PPE		Unload equipment without a spotter. Lift with your back	
8) Post Trip	Tripping, Falling, Pinching, Crushing, Burns, Lifting, Bending, Pulling, Twisting	Always perform equipment inspections before and after operations (pre and post)			
Notes and Specifications Instructions		Other Related Resources			
		Regional MHT			
		Driller Safety Handbook			
		MMS Manual			
		MUTCD			
		PD 80.1, Personal Protective Equipment			
		M & S Standards			
		Lane Closure Strategy Book			

