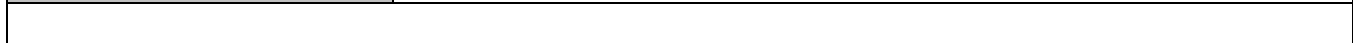




JOB/TASK NAME EB0041 SOILS LABORATORY	DATE 1/24/2012
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JOB TITLE PERFORMING THE JOB/TASK Instructors, Teaching Assistants, Students
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REQUIRED PERSONAL PROTECTIVE EQUIPMENT	Safety glasses and gloves as required by the particular work being done. See detailed instructions in individual laboratory experiment procedure handouts for Personal Protective Equipment required for certain operations.
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EQUIPMENT / TOOLS REQUIRED FOR JOB (Complete Tool Inspection Prior to Start of Job):

Unconfined compression test machine, direct shear test machine, consolidation test machine, electric malt mixer, ovens, curing tank heaters, electric soil grinder, hydraulic Shelby tube extruder, hydraulic jack mold extractor.

JOB STEPS		POTENTIAL HAZARDS	HAZARD CONTROL METHOD
1.	Safety Training	See items listed below	1) All persons actively engaged in laboratory activities must have safety training. The training shall include the following parts: a) General Laboratory Rules b) Laboratory Experiment Procedures c) Personal protective equipment (PPE)
2.	Housekeeping	a. Slips, trips, falls b. Dust	2) Keep work area clean and clear of debris and liquids. 3) Be aware of everything going on around you. 4) Keep an eye on fellow workers and alert them of any potential risk/harm. 5) Keep the floor and bench tops clean. Sweep up large particles, wet mop the dust.
3.	Attire	a. Cuts, abrasions b. Entanglement	6) All persons in the area where soil grinding and Shelby tube extruding operations are occurring must wear safety glasses. 7) No open-toe shoes are allowed in the lab. 8) Long pants must be worn whenever there is risk that heavy or sharp or abrasive materials could

			<p>pose a risk of injury.</p> <p>9) Do NOT wear loose clothing or jewelry that could be caught or entangled in machinery.</p> <p>10) Tie back long hair wear headwear to prevent long hair from being caught or entangled in machinery.</p>
3.	Tools and Equipment	<p>a. Cut/Burn</p> <p>b. Electrical Hazards</p> <p>c. Noise levels</p> <p>e. Dust</p>	<p>11) While tools or equipment are being used properly fitted personal protective equipment must be worn by the operator and others in the area.</p> <p>12) Before use of any powered equipment or tool, a thorough inspection must be completed to insure proper working condition. Make any proper necessary corrections before use of the equipment.</p> <p>13) Do not use equipment or tool that is damaged beyond repair or has any safety features missing (guards). Report damaged tool/equipment to team captain or safety advisor for "DO NOT OPERATE" tag.</p> <p>14) Portable power equipment shall be unplugged when not in use.</p> <p>15) All power cords shall be inspected before the cord or tool is used, periodically while being used and when work with the cord or equipment is done for the day. Any damaged cord must be taken out of service immediately.</p> <p>16) Do not use or touch electrical equipment if water or other fluids are on the equipment, the floor around it, or your clothes are wet</p> <p>17) If while operating the equipment or power tool a circuit breaker trips for any reason, the instructor, lab TA or other qualified person must determine the cause and correct it before resetting the breaker.</p> <p>18) Anyone sanding, grinding or cutting anything that produces visible dust in the air must wear a dust mask. This includes anyone else who may be working nearby.</p>
4.	Experimental Test Equipment	d. Pinch points	<p>19) Only persons trained to operate the experimental test equipment in the lab may do so.</p>

			<p>a) The lab instructor, teaching assistant or other person specifically designated to conduct work with the lab equipment may authorize others to operate the equipment once the operator has been given complete instruction on how to safely operate the equipment.</p> <p>20) When using a machine that uses compressed air as a power source, check that BEFORE connecting to the compressed air source:</p> <p>a) No one has any part of their person in contact with the moving parts machine being connected.</p> <p>b) All air controls are set to OFF or UNLOAD and the air pressure regulator is fully opened for minimum pressure.</p> <p>c) The air hose connections are free of any visible defects and firmly and mechanically locked before opening the main valve at the air supply.</p> <p>21) When using a machine that uses electricity as a power source, check that BEFORE connecting to the electric power source</p> <p>a) No one has any part of their person in contact with the moving parts machine being connected.</p> <p>b) All load or movement controls are set to OFF or UNLOAD and the power switch is OFF.</p> <p>c) You or your clothing are not wet nor in contact with fluids.</p> <p>d) The electric cords are free of any visible defects and firmly attached to the power source.</p> <p>22) When using a machine that uses hydraulic power as a power source, check that BEFORE connecting to the electric power source and applying hydraulic power</p> <p>a) No one has any part of their person in contact with the moving parts machine being connected.</p> <p>b) All load or movement controls are set to OFF</p>
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			<p>or UNLOAD and the power switch is OFF.</p> <ul style="list-style-type: none"> c) The hydraulic hoses, tubes and connections are free of any visible defects and firmly attached. d) You or your clothing are not wet nor in contact with fluids. e) The hydraulic pump electric cords are free of any visible defects and firmly attached to the power source. <p>23) Before turning the main power on any of the powered test machines to ON, announce "Clear Machine" to let everyone in the area know and also visually inspect the test area to be sure no one is in harm's way.</p> <p>24) Before and during operation of the test equipment, be sure that no person is in contact with any of the moving parts of the machine. Be prepared to stop the equipment should any problem arise.</p>
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