

**CS-1000 Unit #702 SLM Spot Check**  
**24 July 1997**  
**Exploration Site, Tok, Alaska**

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Site Description

This spot check SLM survey was conducted between 0900 and 0930 on 24 July 1997 at an exploration site near Tok, Alaska. It is a mountainous, tundra area with rocky soil and arctic vegetation. The altitude is approximately 5,500 feet above sea level. The drill rig was on a pad area with no nearby barriers (Figure 1). There were no additional noise sources that could have contributed to noise levels in the survey. There was an external water pump running near the rig.

Environmental Conditions

During the survey there were negligible winds from various directions at approximately 5 mph. The temperatures were in the mid 60° 's F during the course of the survey with 25% humidity. The background noise level taken with the SLM before drilling operations commenced was less than 75.0 dBA.

Site Equipment

The drill surveyed was unit #702 based out of Anchorage, Alaska. The main engine of the drill rig is a deck mounted, three cylinder. Associated equipment included with the rig is a Bean Type 35 water pump. The rig is skid mounted.

Technical Approach

Layne Christensen Safety Coordinator, Jim Wright, conducted this survey. During the survey, the drill crew was performing routine drilling operations. This survey would constitute an "average" time frame of drilling on a CS-1000 core drill rig.

Instantaneous Sound Level Measurement Results

Instantaneous SLM results for the CS-1000 drill rig at Tok showed noise levels above 85 dBA up to twenty-five feet (25') away from the rig during drilling operations. These levels were dependent upon the direction of the rig. The front and rear of the rig showed the lowest levels beginning at ~ 95 dBA. The noise levels at the left and right sides of the drill produced levels of ~ 103 dBA due to the close proximity of the engine.

Conclusion

The 85 dBA line and instantaneous SLM reading taken during this survey are within the other historical surveys conducted. The 85 dBA line stretched to twenty-five feet (25') around the drill.

<b>Equipment List</b>	
Instrument	Serial Number
Quest Model 215 Sound Level Meter	M2050070
Quest CA12 Acoustical Calibrator	Y2040017

<b>Calibration</b>		
Serial Number	Pre-Cal	Post-Cal
M2050070	110 dBA @ 1,000 Hz	110 dBA @ 1,000 Hz

<b>Instantaneous SLM Readings</b>				
Distance from Rig in feet	SLM Readings in dBA from Position			
	Front	Rear	Left	Right
0	94.0	96.0	103.0	104.0
5	94.0	94.0	99.0	100.0
10	92.0	90.0	95.0	98.0
15	90.0	88.0	90.0	95.0
20	88.0	85.0	89.0	92.0
25	86.0	84.0	85.0	89.0
30	83.0	83.0	84.0	85.0
35	80.0	82.0	81.0	82.0
40	78.0	79.0	79.0	79.0

<b>Misc. Instantaneous SLM Readings</b>	
Operator's Station	96 dBA

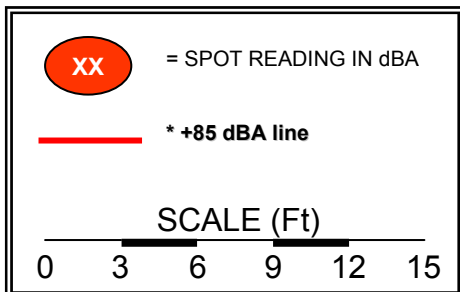
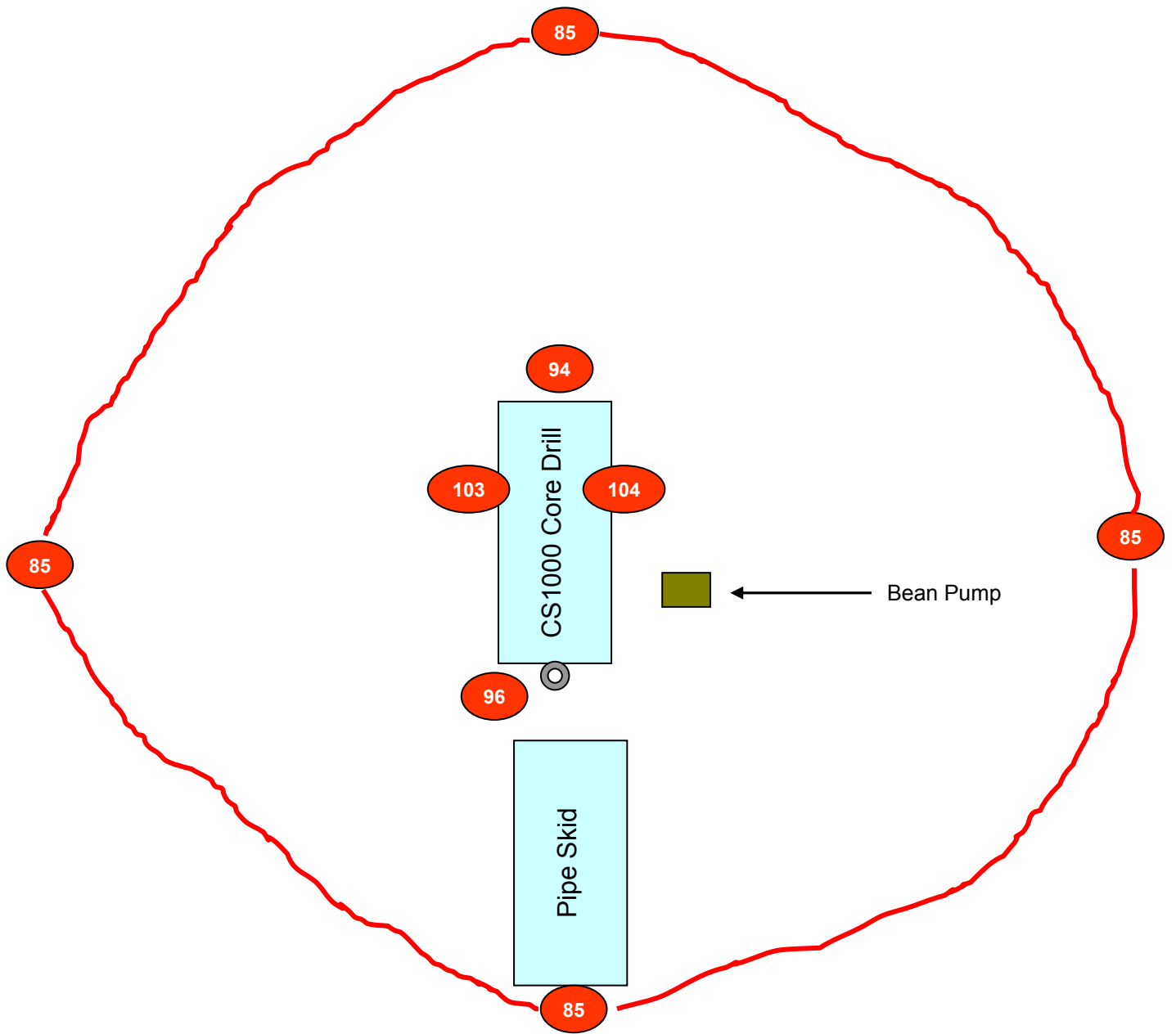


Figure 1 Tok Site CS1000 #702  
 27 July 1997