ERDMAN & ASSOCIATES

Consulting Engineers / Water Testing Laboratory

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September 11, 2000

Thor Gold Alaska Attention: Mr. Scott Eubanks PO Box 1747 Palmer, AK 99645

Re: Willow Creek Mine

Dear Mr. Eubanks,

On July 21, 2000, Michael Erdman, P.E. of our office visited the Willow Creek Mine and collected soil samples, to be analyzed for petroleum contamination.

A total of eight (8) samples were collected from sites identified as having the highest contaminant levels in the Underground Storage Tank Closure Assessment by Shannon & Wilson dated October 1997.

Samples were collected using appropriate sampling procedures, in containers provided by CT&E Labs. Samples were kept in coolers with ice packs or refrigerated, and transferred to you using chain of custody procedures, for transport to CT&E Labs in Anchorage.

Samples were sequentially numbered, and designated with the prefix "E" to denote Erdman & Associates. Sample locations are described below:

Sample #	<u>Description</u>	S&W 1997 Sample
El	Eastern sidewall - UST #5	S6
E2	Eastern sidewall - UST #5	S7
E3	South end of UST #3	S1
E4	Under dispenser - UST #4	S5
E5	Between UST #1 & #2	\$18/\$19
E6	East end of excavation - UST #1 & #2	S20
E7	South end of storage cell	n/a
E8	Center of storage cell	n/a

Sample results are summarized and compared with prior results below:

Parameter	E1	S6	E2	\$7	E3	\$1	E4	\$5	E5	S18
GRO	U	-	n	851	U	123	35.4	1170	U	31.5
Benzene	U		U	· U	U	0.0568	U	6.48	U	U
Toluene	U	-	U	0.233	U	0.155	U	58.9	U	IJ
Ethylbenzene	U	-	U	1.81	U	0.283	0.177	19.2	U	0.163
P&M Xylene	U	***	U	2.95	U	1.66	0.331	79.2	U	0.296
o-Xylene	0.262	-	U	0.418	U	0.858	0.192	32.4	U	0.109
DRO	215	213	15.2	5960	U	3070	826	1670	U	735
RRO	126	-	46.4	-	U		17.2	~	U	de Wil

Parameter GRO	E6 U	S20	E7	E8
Benzene	U	2.40 U	9.74 U	2,07 U
Toluene	U	U	U	U
Ethylbenzene	ū	U	U	U
P&M Xylene	U	0.0172	0.0832	U
o-Xylene	U	U	0.242	U
DRO	U	480	299	38.8
RRO	73.8	***	50	72.6

Notes:

- Indicates analyte not analyzed.
- U Indicates analyte not detected.

Conclusions

Nearly all samples indicated a significant reduction in GRO/BTEX and DRO levels. The highest remaining concentration was at sample location E4 (S5), which showed a DRO level of 826 mg/Kg. It was note during our inspection that additional excavation at this location is impractical as it would undermine the structural stability of the building foundation.

We recommend that you forward a copy of your laboratory results to ADEC for their review. Please call if you have any questions or need additional information.

Sincerely,

Michael R. Erdman, P.E.