

Certificate of Analysis

TO Curragh Resources

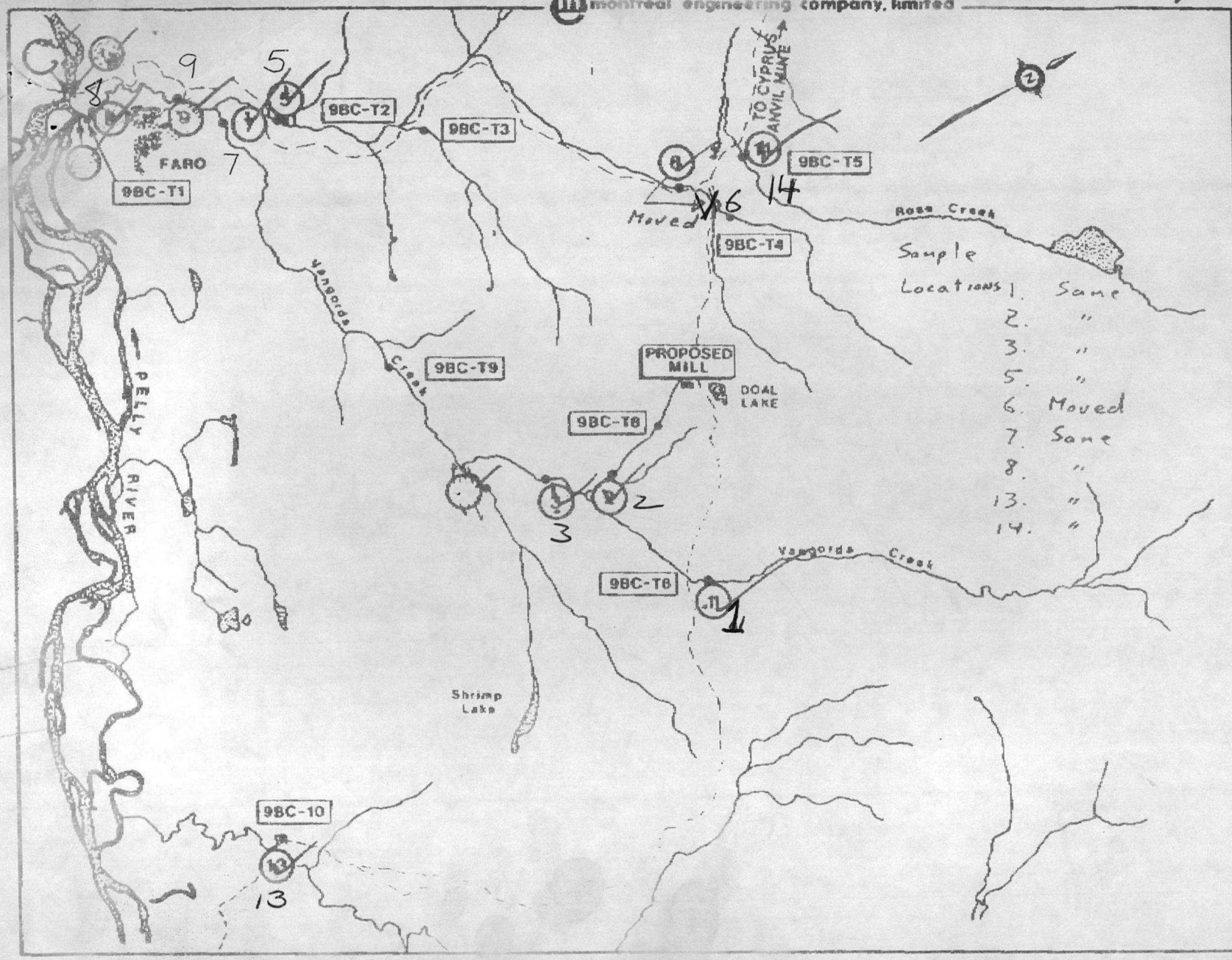
REPORT NO. 47-4326
DATE July 7, 1987

I hereby certify that the following are the results of analyses made by us upon the herein described wastewater samples

Table with columns: MARKED, Cu (ppb), Pb (ppb), Zn (ppb), Mn (ppb), Na (ppm), SO4 (ppm), suspended solids (ppm). Rows include samples X 4 through X 23, GRUM ADIT, GRUM A POND, and GRUM DUMP POND with various concentrations and dates.

Handwritten signature of John R.

01  
CURRAGH FARO  
403 994 2600  
87 07/14 11:50



**LEGEND**

- SAMPLE LOCATION
- ⑤ SAMPLE NUMBER BY MECO
- ROAD
- ~ CREEK
- 9BC-T3 SAMPLE NUMBER BY DINA

Sample Locations

1.	Same
2.	"
3.	"
5.	"
6.	Moved
7.	Same
8.	"
13.	"
14.	"

Scale: 0 500 1000 FEET  
0 1000 2000 METRES

CONTOUR INTERVAL 30m (100ft)

PLATE 1-1  
WATER QUALITY  
SAMPLING STATIONS  
1-1

Grum/Vangorda water sample locations:  
X4, X5, X9, X11, X12, X13, X22, X23



# Certificate of Analysis

TO Curragh Resources

REPORT NO. 47-4320

DATE July 3, 1987

I hereby certify that the following are the results of analyses made by us upon the herein described wastewater samples

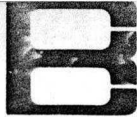
MARKED	ppb	ppb	ppb	ppb	ppm	ppm	ppm	suspended solids
	Cu	Pb	Zn	Mn	Na	SO <sub>4</sub>		
X 4 26/6/87	14	260	152	1010	92.0	358	8	
X 5 26/6/87	9	90	135	1120	88.0	419	L 1	
X 9 26/6/87	91	165	48	13	93.0	125	190000	
X11 26/6/87	14	L 5	7	4680	79.0	651	5	
X12 26/6/87	8	L 5	8	1060	47.0	470	L 1	
X13 26/6/87	3	L 5	6	3820	69.0	637	2	
X22 26/6/87	5	23	26500	1710	13.4	325	57	
X23 26/6/87	8	10	32400	10700	33.5	1400	2	
DOAL LAKE 22/6	2	7	7	5	1.0	2		
DL 1 22/6	12	62	79	8	8.1	26		
DW	.825	8	41	16	0.9			

*Mount  
Every  
5/1/87*

*Doal Lake water* ←

*Water from drill hole beside Doal Lake* ←

*mine site drinking water* ←



Certificate of Analysis

Entered.

TO Curragh Resources

REPORT NO. 47-3558

DATE June 12, 1987

I hereby certify that the following are the results of analyses made by us upon the herein described water samples

MARKED		ppb	ppb	ppb	ppb	ppm	ppm	ppm	pH	NH3	pH
		Cu	Pb	Zn	Mn	mg/l Na	mg/l SO4	suspended solids mg/l			
		.012 <sup>mg/l</sup>	6030 <sup>mg/l</sup>	37000 <sup>mg/l</sup>	6800 <sup>mg/l</sup>	47.0	853	119			Doal L. 7.48
X 1	4/6/87	7	97	74	1040	82.0	386	1			DL 1 11.17
X 4	4/6/87	9	64	158	1070	81.0	468	1			Emk 2.85
X 5	4/6/87	21	54	55	10	135.0	184	279000			11.21
X 9	4/6/87	4	L 5	2	5100	70.0	670	6			
X11	4/6/87	4	L 5	3	965	53.0	575	L 1			GA 8.01
X12	4/6/87	4	L 5	5	4200	70.0	655	3			
X13	4/6/87	18	41	43800	2700	14.8	426	82			
X22	4/6/87	8	33	25100	4740	19.6	748	6			Jemp
X23	4/6/87										
GRUM ADIT	3/6/87	<L 2	<L 05	2320	.187	10.3	92	8	8.01	5	
V 1	3/6/87	<L 2	<L 05	D.002	.004	0.6	3	L 1	7.42	.07	1
V 2	3/6/87	.002	<L 05	.003	<L 02	1.5	9	L 1	8.00	.45	2
V 3	3/6/87	.002	L 5	.012	.004	0.8	3	1	7.47	.04	2
V 5	3/6/87	3	6	3	.026	1.3	21	15	7.85	.10	3
V 6	3/6/87	2	L 5	2	4	0.7	2	2	7.67	.31	2
V 7	3/6/87	.003	<L 05	.007	.006	0.9	8	3	7.97	.05	2
V 8	3/6/87	4	L 5	7	.012	1.1	15	5	7.82	.08	3
V13	3/6/87	2	L 5	2	21	1.0	6	19	7.98	.12	5
V14	3/6/87	L 2	L 5	L 2	8	0.5	4	2	7.56	.62	3

*start*  
*month*  
*License sites for FARD*  
*Done*  
*start*

*John R...*

JUNE 15, 1987

ATTENTION: DAVID WRIGHT

RESULTS FOR 9 SAMPLES RECEIVED JUNE 9, 1987 LABELLED CYANIDE  
AND AMMONIA - JUNE 4, 1987

	CYANIDE	AMMONIA
X1	0.098	1.40
X4	0.049	0.95
X5	0.028	0.90
X9	0.028	0.84
X11	0.210	0.78
X12	L0.005	0.65
X13	0.116	0.45
X22	L0.005	1.87
X23	L0.005	1.89

X13 } 0.03  
X11 }

X5 - 0.05

~~X13~~

RESULTS FOR 10 SAMPLES RECEIVED JUNE 9, 1987 LABELLED AMMONIA- JUNE  
3/87

	AMMONIA
10 V1	0.07
V2	0.45
V3	0.04
V5	0.10
V6	0.31
V7	0.05
V8	0.08
V13	0.12
V14	0.62
GRUM ADIT	0.27

*no cyanide requested.*

ALL RESULTS EXPRESSED IN MG PER LITRE UNLESS OTHERWISE NOTED  
L = LESS THAN

REGARDS

C. BELL777777777776\*

GURRAGH W FARD

ECO TECH KAM