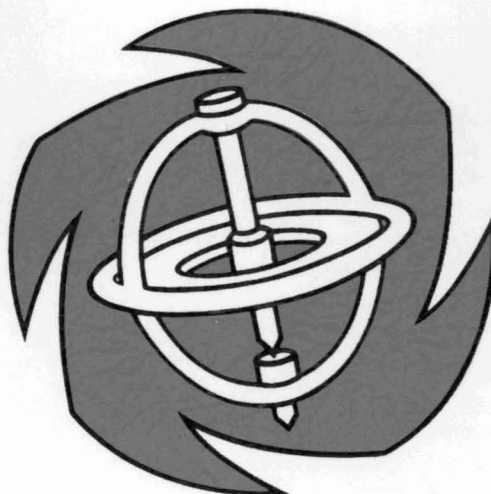


001659

# sperry-sun

OF CANADA LTD

GYROSCOPIC DIRECTIONAL SURVEY  
FOR  
CYPRUS ANVIL MINING CORPORATION  
80-x-13



canadian directional drilling services

# sperry-sun

## DIRECTIONAL SURVEY REPORT

FOR

CYPRUS ANVIL MINING CORPORATION

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TYPE OF SURVEY: GYROSCOPIC DIRECTIONAL SURVEY

SURVEY DEPTH: FROM 00 m TO 853 m

LEASE: DY DEPOSIT 80-X-13

FIELD:/AREA: FARO

PROVINCE: YUKON JOB NO. LRG1.75-E-444

DATE OF SURVEY: 1980 09 20

OFFICE: EDMONTON, ALBERTA

SPERRY-SUN OF CANADA  
GYROSCOPIC DIRECTIONAL SURVEY

PAGE 1

CYPRUS ANVIL MINING CORPORATION  
Y DEPOSIT 80-X-13

LRG1.75-E-444  
19800920

TOTAL DEPTH	DIRECTION DEG	ANGLE DEG	VERTICAL DEPTH	LATITUDE METRES	DEPARTURE METRES	VERTICAL SECTION	DOG LEG
0	0.0	0.00	0.00	0.00 N	0.00 E	0.00	0.00
15	101.3	1.30	15.24	0.04 S	0.17 E	0.01	2.56
30	50.4	1.28	30.48	0.04 N	0.47 E	0.16	2.18
46	19.5	2.05	45.71	0.41 N	0.69 E	0.57	2.28
61	21.1	2.08	60.94	0.92 N	0.88 E	1.12	0.13
76	31.1	1.97	76.17	1.40 N	1.12 E	1.65	0.74
91	31.2	2.30	91.40	1.89 N	1.41 E	2.19	0.66
107	31.2	3.78	106.62	2.58 N	1.83 E	2.97	2.92
122	22.2	3.62	121.83	3.46 N	2.27 E	3.93	1.19
137	13.6	4.00	137.03	4.42 N	2.58 E	4.94	1.35
152	7.0	4.47	152.23	5.52 N	2.77 E	6.05	1.32
168	4.0	4.40	167.42	6.70 N	2.89 E	7.22	0.48
183	1.4	4.92	182.61	7.93 N	2.94 E	8.42	1.10
198	352.9	5.53	197.79	9.31 N	2.87 E	9.74	1.95
213	343.3	6.67	212.94	10.89 N	2.52 E	11.17	2.99
229	341.8	7.33	228.07	12.66 N	1.96 E	12.74	1.36
244	343.2	8.00	243.17	14.60 N	1.35 E	14.45	1.36
259	342.6	8.08	258.26	16.64 N	0.73 E	16.26	0.23
274	341.6	8.25	273.35	18.70 N	0.06 E	18.08	0.43
290	341.6	8.75	288.42	20.84 N	0.66 W	19.96	0.98
305	343.6	9.08	303.48	23.09 N	1.36 W	21.95	0.90
320	342.7	9.92	318.51	25.50 N	2.09 W	24.09	1.67
335	339.8	10.13	333.52	28.01 N	2.95 W	26.29	1.07
351	338.9	10.25	348.52	30.53 N	3.90 W	28.49	0.39
366	337.0	10.50	363.51	33.08 N	4.93 W	30.68	0.82
381	339.4	11.88	378.46	35.82 N	6.02 W	33.05	2.87
396	337.7	12.50	393.35	38.82 N	7.20 W	35.64	1.42
411	337.3	12.58	408.23	41.88 N	8.46 W	38.26	0.21
427	338.5	13.12	423.09	45.02 N	9.74 W	40.96	1.16
442	340.6	14.10	437.90	48.38 N	10.99 W	43.89	2.17
457	343.8	13.05	452.71	51.78 N	12.09 W	46.89	2.54
472	347.5	12.62	467.57	55.06 N	12.93 W	49.84	1.84
488	344.7	12.75	482.44	58.30 N	13.73 W	52.77	1.24
503	353.4	12.83	497.30	61.61 N	14.36 W	55.79	3.78
518	356.1	13.05	512.16	65.01 N	14.67 W	59.00	1.26
533	354.8	13.95	526.97	68.55 N	14.96 W	62.35	1.87
549	355.0	13.98	541.76	72.22 N	15.29 W	65.80	0.13
564	355.1	15.33	556.51	76.06 N	15.62 W	69.43	2.66
579	355.1	16.75	571.15	80.25 N	15.98 W	73.39	2.79
594	354.8	17.63	585.71	84.74 N	16.37 W	77.62	1.75

SPERRY-SUN OF CANADA  
GYROSCOPIC DIRECTIONAL SURVEY

PAGE 2

CYPRUS ANVIL MINING CORPORATION  
WY DEPOSIT 80-X-13

LRG1.75-E-444  
19800920

TOTAL DEPTH	DIRECTION DEG	ANGLE DEG	VERTICAL DEPTH	LATITUDE METRES	DEPARTURE METRES	VERTICAL SECTION	DOG LEG
610	354.4	18.17	600.21	89.41 N	16.81 W	82.01	1.07
625	354.3	19.00	614.66	94.24 N	17.29 W	86.55	1.64
640	354.4	19.93	629.03	99.29 N	17.79 W	91.31	1.84
655	349.0	19.53	643.37	104.38 N	18.53 W	96.03	3.68
671	348.7	20.03	657.71	109.44 N	19.54 W	100.66	1.01
686	348.4	20.08	672.03	114.56 N	20.57 W	105.34	0.17
701	349.5	20.67	686.32	119.77 N	21.59 W	110.10	1.37
716	346.2	22.25	700.50	125.22 N	22.76 W	115.06	3.92
732	342.3	21.67	714.63	130.70 N	24.31 W	119.96	3.14
747	341.0	21.13	728.82	135.98 N	26.06 W	124.60	1.38
762	342.3	19.92	743.10	141.05 N	27.74 W	129.06	2.55
777	340.8	16.08	757.59	145.51 N	29.23 W	132.99	7.60
792	340.6	14.95	772.27	149.36 N	30.57 W	136.36	2.23
808	339.4	13.97	787.03	152.94 N	31.87 W	139.48	2.02
823	335.8	13.97	801.82	156.34 N	33.27 W	142.40	1.74
838	330.6	12.97	816.64	159.51 N	34.87 W	145.05	3.07
853	323.0	11.50	831.53	162.21 N	36.62 W	147.21	4.30

THE DOGLEG SEVERITY IS IN DEGREES PER 30 METRES.  
THE VERTICAL SECTION WAS COMPUTED ALONG AZ. 15.0

BASED UPON MINIMUM CURVATURE TYPE CALCULATIONS. THE BOTTOM HOLE  
DISPLACEMENT IS 166.29 METRES, IN THE DIRECTION OF AZ. 347.3

# CYPRUS ANML MINING CORPORATION

## DY DEPOSIT 80-X-13

TSD 853 m  
TVD 831.53 m

762 m

594 m

290 m

HORIZONTAL DISPLACEMENT IS 166.29 m  
IN THE DIRECTION OF AZ. 347.3  
(N 12 47 W)



HORIZONTAL PROJECTION  
SCALE 2cm = 10m

sperry-sun  
OF CANADA LTD.

DRWG BY: *101*

CHKD BY: *DDP*

DATE: *Sept 24/80*