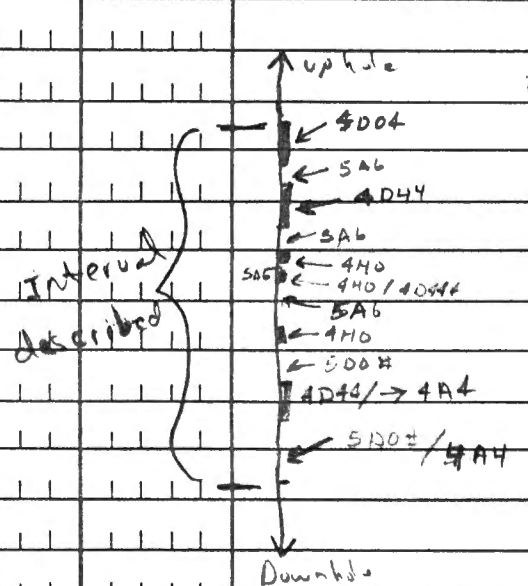


MAR 15 1991

Code	From		To		Recov.		No.		Unit	Description	
	10	14	16	20	22	24	26	28	30		34
	544.7		545.5						5A16 ± §	(5FO##) 51:49	
										Black non-calcareous non dolomitic, A_2 foliated phyllite is moderately to strongly siliceous and hosts 0-3% Po and 0-trace Py occurring as irregular clots with dolomite clots appear as a "healing matrix" to a very weak breccia fabric. Remobilized sulphides may have a trace very fine grained sphalerite also remobilized into matrix at healing fabric. S_2 surfaces easily tarnish fingers black. Interval contains ~49% medium green, intensely calcareous, very strongly A_2 foliated rock. 5FO##(?) This green unit occurs in 5-15 cm bands below 545.0, and hosts 0 trace Po . Rocks are hard to very hard, moderately to slightly broken with 100% recovery. All contacts are very sharp and parallel S_2 .	
	545.5		546.2						A-DAA	(SAO:4EO→4CO) 75:15:10	
										Ruflish brown unit is non-calcareous and non dolomitic and very strongly mineralized, possibly baritic (note assays) Unit is very heavy. Locally unit supports fragments, wisps and bands of barren non-siliceous SAO. Upper & lower contacts and portions within contain up to 60% Py ; 4EO→4CO Massive pyrite portions are from 3-5 cm wide and very siliceous. Rock is hard moderately broken and has good recovery. All contacts are sharp and parallel S_2 ;	

Code	From	To	Recov.	No.	Unit	Description
1	10	14 16	20 22 24	26 28	30 34 35	
						although contacts with pyritic bands are slightly gradational. Estimated grade over interval is 10-12% although locally narrow areas contain 30% PbZn
	546.2	552.6			AA4, ± SA14 (5C64) 99:01	
						Very dark gray non-calcareous unit is generally P_2 foliated and moderately mineralized with sphalerite and pyrite. Ribbon banding is common with mineralization occurring along S_2 bands 0.2 - 0.5 cm wide. Locally interval hosts CS_2 banding of phyllite (bands ≤ 1 cm) separated by mineralized S_2 planes. Rarely mineralization follows S_1 bands. S_2 surfaces moderately toornish fingers dark gray. Unit is moderately to strongly siliceous throughout. Interval supports two 2.5 cm bands of weakly to non-siliceous medium green non-calcareous 5C64 at 546.5 and 548.0. Contacts are generally sharp and parallel S_2 although upper contact of lower band is irregular. Green unit is P_2 foliated with what could be taken as a very poorly preserved igneous texture or phyllitic texture (?)
						Rock is hard slightly to moderately broken with good recovery. Upper and lower contacts are sharp and parallel S_2
						Estimated grade of interval is 5-7%, combined

Code	From	To	Recov.	No.	Unit	Description
1	10	14 16 20 22 24 26 28 30 34 35				
	552.6	555.7			A109	(5A6: 500# : 4H0) 37: 35: 25: 03
						Highly mixed unit on the dm-scale, sandy on the cm-scale. Upper 0.7m of unit hosts moderately mineralized quartzite with a 15cm band of 5A6 in the center. Contacts are sharp and parallel S_2 . QUARTZITE below 5A6 is strongly Zn mineralized.
						Below quartzitic dominant interval a mixed interval of 5A6, 4H0 and a single intensely mineralized (Zn) band (1cm) exist. 5A6 contains 7-10% dolomite-quartz clots and highly irregular bands in a PS_2 fabric. This interval dominates to 554.3. 3 bands of cm to dm-scale 4H0 exist at 553.65, 553.8 and 554.3. Zinc rich band occurs at 553.85. All contacts are sharp and generally parallel S_2 . Lowest contact of subinterval is very irregular with 4H0 strongly cutting S_2 of lower 500#. 4H0 indicates strong remobilization at this point.
						Next portion of interval is 500# dominant with localized segments (1.0-2.0cm) mineralized quartzite in sharp contact is PS_2 -folded medium green moderately calcareous rock. Contacts are parallel S_2 . At 554.85 and 555.0 1-2.5cm bands of medium to coarse grained remobilized Zn+Pb exist with a dolomite matrix. Remobilized bands crosscut S_2 .
						This striking mass of a highly mixed interval is



Code	From	To	Recov.	No.	Unit	Description
1	10	14 16	20 22 24	26 28	30 34 35	
						generally moderately broken strongly broken at 553.4-553.6. This package is bound by sharp contacts parallel S_2 .
	555.7	571.8			5A61	±# (5A14 : 5D0) 90:07:03
						Very dark gray to black non-calcareous phyllite is PS_2 rarely CS_2 foliated with S_2 surfaces moderately to strongly furnishing fingers block. Unit is generally weakly silicified, locally non-silicified rarely intensely silicified. Unit is barren of visible Pb+Zn mineralization. Unit supports 3% 1cm - 3cm CS_2 foliated bands to wisps at 5D0. Interval contains 3% clotty and wispy P_2 and rare clots of Py .
						AT 558.0-559.1 interval is moderately siliceous and weakly mineralized (5A14). Ribbon banding is very poorly developed with Zn mineralization following CS_2 fabric (i.e. S_2 bands 0.5-1.0cm). Contacts are sharp and parallel S_2 . Weakly mineralized band is estimated to contain 2% Pb+Zn.
						Rock is generally hard to moderately hard moderately broken, strongly broken to crushed at 559.0 to 561.3, and at 566.6 to 567.3. Recovery is good to fair. Upper contact is sharp and parallel S_2 . Lower contact is broken but appears sharp and parallel S_2 .

Lithologic Log

Date: Feb '91 Logged By: J. Zbeck

Code	From		To		Recov.		No.		Unit	Description
	10	14 16	20	22 24	26 28	30	34 35			
	571.1	8	574.1	1					5A6 ±1 (400:506) 92:05:03	
										Very dark gray to black phyllite is non-calcareous PS_2 foliated with S_2 surfaces moderately tarnishing fingers very dark gray to black. On the dm-to-cm scale interval is intermixed with moderately mineralized quartzite. Contacts appear sharp and parallel S_2 . Unit also supports a PS_2 foliated, non-calcareous medium green unit at 573.3-573.6. Green unit contains a moderately well preserved igneous texture stretched into S_2 . Contacts are broken but appear sharp and parallel S_2 . Interval is generally slightly soft, locally weakly silicified and slightly hard. Rock is strongly broken and not allowing distinguishable contacts with 400. Upper contact is broken and appears sharp and parallel S_2 . Lower contact is gradation over 5cm with a progressive increase in bleaching at 500 and an increase in detritals down hole. Estimated grade over interval is <2%.
	574.1	1	576.1	1					AK05 (460) 60:40	
										Mottled light gray and locally purple brown unit is strongly detrital and sporadically mineralized in stringers clasts and rarely as bands ≤ 2.0 cm wide. Interval hosts basaltic units at upper and lower contacts. Upper basaltic unit is occurs at 574.1-574.8, is finely banded, pyrite dominant (20-25%) and has sharp upper and lower contacts. Interval is weak calcareous lower

Code	From			To			Recov.			No.			Unit	Description
	10	14	16	20	22	24	26	28	30	34	35			
														baritic unit occurs at 575.7-576.1, and has fairly well developed banding // S ₂ and is moderately mineralized with a higher Pb+Zn content than upper subunits (7-10%). Upper and lower contacts of lower baritic unit are sharp and parallel S ₂ . Interval is moderately broken with good recovery.
	576.1	576	8										5A14	(SC4 : 4D4) : : 10 Unit is dark gray to black and host irregular clotty Py = Zn mineralization. Clotts appear to be baritic. Unit displays no ribbon banding but is moderately siliceous. Above 5A14 a 20cm band of strongly altered SC4 exists. SC4 is medium gray PS ₂ foliated with carbonaceous matter coating S ₂ surfaces. S ₂ surfaces consist of a network of carbon coatings not as planar bands. SC4 has 1% medium to light green (1x3mm) clotts and -fuchsite (?). Below 5A14 a 15cm band of strongly mineralized 4D0 exists. All internal and upper and lower contacts are sharp and parallel S ₂ . Rock are generally hard, except SC4 which is moderately soft. Unit is moderately broken with good recovery.

Code	From	To	Recov.	No.	Unit	Description
1	10	14 16 20	22 24	26 28 30	34 35	
	576.8	584.1			5A9 ±\$	(4A4: 4C0) 85.10:05 Very dark gray to black rarely dolomitic, PS ₂ locally CS ₂ foliated phyllite is carbonaceous with S ₂ surfaces tarnishing figures very dark gray to black. Interval supports sporadic moderately to strongly mineralized 4A4 bands commonly on the dm-scale with sharp contacts. Widest mineralized interval occurs at 577.6-578.0. Interval also host sporadic dm-scale 4C0 bands which do not exceed 15cm, and do have sharp contacts parallel S ₂ Rock is slightly to moderately salt, hard where siliceous. Core is strongly broken // S ₂ and has good recovery. Upper and lower contacts are sharp and parallel S ₂ Overall grade is <1% combined.
	584.1	585.0			4G0\$	Mottled buff and brown, weakly to moderately mineralized unit is weakly dolomitic and hosts 10% 5-7mm dolomite clasts. Unit is generally massive with banding occurring at upper and lower contacts, parallel S ₂ and over widths <15cm wide. Rock is slightly salt, moderately broken and has good recovery. Upper contact is sharp and parallel S ₂ . Lower contact is sharp and very irregular. Estimated grade is 7%

Lithologic Log

Date: Feb '91 Logged By: J. Zbeet

Code	From	To	Recov.	No.	Unit	Description
	10 14 16 20 22 24 26 28 30 34 36					
	585.0	588.3			5A11 ±9	(464; 4E0) 97:02:01 Dark gray to black PS_2 and CS_2 foliated carbonaceous phyllite is moderately silicified, locally barren of silicified S_2 surfaces easily tarnish fingers black. Unit lacks ribbon banding, mineralization is limited to clotty Py and very rare traces of $<1cm$ disseminated bands of Sph . above 586.6. Below 586.6 Phyllite hosts sporadic Sph mineralization, 1% 1.0-1.5 cm bands of 4E0 and a possible band of 464 at 587.1-587.25. Rock is generally hard moderately to slightly broken with good recovery. Overall grade of interval is $<3\%$ combined. Upper contact is sharp and very irregular, lower contact sharp, parallel S_2 and hosts 30% grade calcite veins (2-3 cm wide) over last 40cm
	588.3	591.5			A15A ±#	(586) trace Yellowish-brown locally weakly calcareous, slightly to moderately basic and moderately mineralized with Pb/Zn and contains 35-40% $Pyrite$. Banding is sporadic and when present is faint and parallel S_2 . Interval contains 3% calcite clots 3-4 mm in dia. Rock is very slightly soft streaks black and has a high SG . Core is slightly broken to moderately broken, recovery is good. Upper contact is sharp and parallel S_2 , lower

Code	From	To	Recov.	No.	Unit	Description
1	10	14	16	20	22 24 26 28 30	34 35
						Contact is also sharp and parallel S_2 . Unit hosts trace wisps and broken fragments at 586 @ 591.5 - 591.3.
	591.5	592.3			5C4#	Medium green, strongly calcareous unit is CS_2 foliated and contains an extremely poorly preserved igneous texture. Unit host NO mineralization, is slightly soft and is slightly broken. Recovery is good. Upper and lower contacts are sharp and parallel S_2 . Lower contact is slightly rough- with remobilized sulphides invading metabasite.
	592.3	598.4			AG44 (5C4#) 97:03	Yellowish brown, locally deep purple, very weakly - to - noncalcareous unit is strongly banded generally moderately well banded with 10-30% pyrite. Unit is moderately to very strongly mineralized. Unit hosts 3%, medium green $CS_2 \Rightarrow$ PS_2 foliated, strongly calcareous metabasite with a very slight hint of intrusive texture remaining. Metabasite contacts are fairly sharp, parallel S_2 with slight sulphide invasion from remobilization into 5C4#. Meta basite occurs at 596.3-596.45 and 597.0 - 597.5. Banded

Code	From		To		Recov.		No.		Unit	Description
	10	14	16	20	22	24	26	28		
										unit is slightly silty, streaks black and is slightly broken. Upper contact is generally sharp and parallel S_2 . Lower contact is sharp and oriented at 045/22 wrt S_2 .
	598.4	603.8							506	→ 420 ± 1 (SAO) 98:02 Medium gray, locally weakly to moderately bleached light green, non-calcareous unit is P_2 foliated and rarely siliceous. Internal contacts with bleaching are generally gradational except where in contact with SAO - then they are sharp and parallel S_2 . SAO occurs as ≤ 5cm bands parallel S_2 . Rock is generally moderately soft, except hard where siliceous. Core is moderately broken recovery is good. Upper contact with basalt unit is very sharp and oriented at 045/22 wrt S_2 . Lower contact is very irregular, and cross cuts S_2 and is related to 20cm quartz-calcite vein 3cm from contact.
	603.8	607.3							A140 ± 1	Very light gray to buff with a weak green tint. Non-calcareous unit contains poorly preserved remnants of $CS_2 \Rightarrow P_2$. Unit hosts 15-20% 1-2 x 3-4 mm chloritic porphyroblasts moderately to weakly stretched

CURRAGH RESOURCES INC.

D1C
A

DDH# 91-DY-03

GEOTECHNICAL LOG

Units: Feet / Metres

Date: FEB 11/91

Logged By: RW/DRH

Page of

Run (Length)	TCR (Length)	ROD (Length)	Strength	Degree Breakage	Weathering Alteration	FRACTURES												CORE SIZE	COMMENTS
						0-30				30-65				65-90					
						No	Rough	Alt	Type	No	Rough	Alt	Type	No	Rough	Alt	Type		
	42.3	40.9																	
531.3																			
534.5	3.1	1.0	R2	9	1	Ø	-	-	-	1	17	10.0	J	47	11	4.0	S	7	
537.7	3.0	0.8	R2	10	1	Ø	-	-	-	1	14	10.0	J	54	12	3.0	S		
540.7	3.0	1.0	R2	9	1	1	11	10.0	J	3	16	10.0	J	38	12	5.0	S		
543.5	2.6	1.0	R2	10	1	1	16	10.0	J	1	16	10.0	J	37	12	5.0	S		
546.5	2.9	1.0	R2	11	1	1	15	10.0	J	1	16	10.0	J	47	11	4.0	S		
549.6	3.0	2.2	R3	12	1	2	14	10.0	J	1	16	10.0	J	28	11	6.0	S		
552.6	2.8	2.0	R3	14	1	1	12	10.0	J	1	15	10.0	J	20	11	6.0	S		
555.7	3.1	1.6	R3	13	1	1	16	10.0	J	3	14	10.0	S	23	12	6.0	S		
558.7	2.4	2.2	R2	14	1	1	14	10.0	J	2	13	10.0	S	23	12	6.0	S		
559.9	1.2	0	R2	7	1	2	13	10.0	J	1	12	10.0	J	30	12	6.0	S		
561.3	1.1	0	R2	8	1	1	16	10.0	J	1	16	10.0	J	31	12	6.0	S		
564.3	2.9	2.1	R2	12	1	Ø	-	-	-	10	12	10.0	S	15	12	10.0	S		
566.6	2.3	1.3	R2	14	1	Ø	-	-	-	2	14	10.0	J	17	12	10.0	S		
568.5	1.6	0.1	R2	8	1	1	14	10.0	J	2	12	10.0	S	39	12	10.0	S		
569.4	0.9	0	R2	9	1	1	16	10.0	J	2	12	10.0	S	16	12	10.0	S		
571.8	1.9	0.1	R2	11	1	1	16	10.0	J	7	13	10.0	S	32	12	6.0	S		
573.3	1.1	0	R2	8	1	1	14	10.0	J	4	12	10.0	S	24	12	6.0	S		
576.0	2.7	0.7	R2	11	1	2	16	10.0	J	2	12	10.0	S	32	12	6.0	S		
577.3	1.1	0.25	R2	9	1	1	16	10.0	J	2	12	10.0	S	22	12	6.0	S		
580.3	3.0	1.4	R2	10	1	1	14	10.0	J	4	14	10.0	S	34	12	6.0	S		
583.4	3.0	0.5	R2	9	1	2	14	10.0	J	13	14	10.0	S	53	12	3.0	S		
586.4	3.0	1.2	R2	14	1	2	14	10.0	J	6	13	10.0	S	45	12	4.0	S		
589.2	2.5	1.0	R2	9	1	3	20	6	J	1	14	6	S	15	12	6	S		
592.4	3.1	2.0	R2	12	1	1	14	10	J	2	20	10	S	29	12	6	S		
595.4	3.1	2.8	R2	14	1	1	14	6	J					12	12	6	S		
596.5	1.0	0.8	R2	14	1	1	12	6	J					4	12	6	S		
598.9	2.0	1.5	R2	12	1	4	10	6	J					6	14	6	S		

DDH 9104-03

CURRAGH RESOURCES INC.

Page A of

Logged by

ASSAY LOG (SAMPLER'S COPY)

Date Feb '91

Sampled by S. 26 Oct 91

CODE	FROM		TO		SAMPLE	INTR.	REC (m)		UNIT	DESCRIPTION				
	10	14	16	20			22	26			28	30	32	34
	10	0	544	7										WASTE
	544	7	545	5	65245									
	545	5	546	2	65246									
	546		547	2	65247									
	547		549	7	65248									
	549	7	552	2	65249									
	552	2	553	3	65250									
	553	3	554	3	65251									
	554	3	555	7	65252									
	555	7	558	0	65253									
	558	0	559	1	65254									
	559	1	561	3	65255									
	561	3	562	4	65256									
														WASTE
	571	1	572	1	65257									
	572	1	574		65258									
	574		574		65259									
	574		576	7	65260									
	576	7	576	8	65261									
	576	8	577	7	65262									
	577	7	579	1	65263									
	579	1	581	1	65264									
	581	1	584	7	65265									
	584	7	585	2	65266									control
	585	2	586	6	65267									
	586	6	588	3	65268									
	588	3	589	9	65269									
	589	9	591	1	65270									
	591	1	592	3	65271									SCA#
	592	3	594	4	65272									
	594	4	595	4	65273									AGAT
	595	4	596	3	65274									
	596	3	597	3	65275									AGAT = SCA#
	597	3	598	7	65276									
														WASTE
	603	0	604	9	65277									

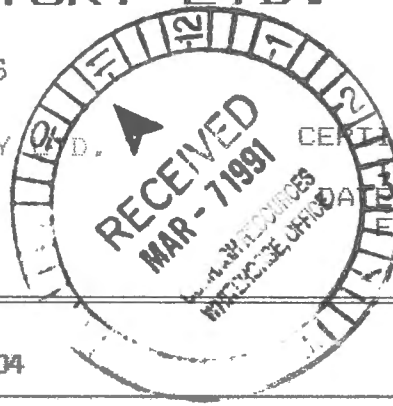
control

ROSSBACHER LABORATORY LTD.

2225 S. Springer Ave., Burnaby,
British Columbia, Can. V5B 3M1
Ph: (604)299-6910 Fax:299-6252

CERTIFICATE OF ANALYSIS

TO : NORTHERN ANALYTICAL LABORATORY LTD.
105 COPPER ROAD
WHITEHORSE, Y.T.
PROJECT : WD # 13066
TYPE OF ANALYSIS : ASSAY



CERTIFICATE # : WD # 13066
INVOICE # : 20193
DATE ENTERED : 91-03-04
FILE NAME : NAL91047
PAGE # : 1

PRE FIX	SAMPLE NAME	% Ba	% BaSO4
P	65241	0.32	0.53
P	65242	0.29	0.48
P	65243	2.70	4.51
P	65244	0.12	0.20
P	65245	0.65	1.08
P	65246	0.12	0.20
P	65247	0.25	0.42
P	65248	0.13	0.22
P	65249	0.19	0.32
P	65250	0.52	0.87
P	65251	0.50	0.83
P	65252	0.21	0.35
P	65253	0.24	0.40
P	65254	0.21	0.35
P	65255	0.10	0.17
P	65256	0.31	0.52
P	65257	0.66	1.10
P	65258	2.62	4.37
P	65259	12.70	21.20
P	65260	2.58	4.31
P	65261	1.00	1.67
P	65262	2.36	3.94
P	65263	1.30	2.17
P	65264	1.62	2.70
P	65265	1.54	2.57
P	65266	2.46	4.11
P	65267	1.66	2.77
P	65268	1.80	3.00
P	65269	0.26	0.43
P	65270	2.22	3.71
P	65271	2.48	4.14
P	65272	1.86	3.10
P	65273	0.41	0.68
P	65274	0.42	0.70
P	65275	0.42	0.70
P	65276	0.17	0.28
P	65277	2.56	4.27
P	65278	11.10	18.53

CERTIFIED BY :

February 18, 1991

Curragh Resources Inc.
 117 Industrial Road.
 Whitehorse, Yukon
 Y1A 2T8

Work Order # 13066

File # 13066b

P.O. # 400294

Assay Certificate

Sample	g/t Au	g/t Ag	%Pb	%Zn	%Fe	SG
65271			0.07	0.12	5.48	
65272			4.88	6.19	18.85	
65273			12.53	14.70	13.54	
65274			5.53	7.02	17.38	
65275			5.69	7.13	17.01	
65276			11.55	14.60	19.64	
65277			0.10	0.13	3.96	
65278			0.05	0.06	4.23	



February 18, 1991

Work Order # 13066

Curragh Resources Inc.
117 Industrial Road.
Whitehorse, Yukon
Y1A 2T8

File # 13066a

P.O. # 400294

Assay Certificate

Sample	g/t Au	g/t Ag	%Pb	%Zn	%Fe	SG
65241			0.91	1.13	13.84	
65242			0.15	0.16	8.56	
65243			4.61	6.87	16.51	
65244			0.41	0.96	9.56	
65245			0.02	0.03	3.80	
65246			5.96	11.02	20.20	
65247			2.71	4.56	4.68	
65248			2.07	4.21	2.59	
65249			3.31	6.28	5.82	
65250			2.67	5.53	14.24	
65251			2.26	4.20	14.39	
65252			2.01	1.97	5.90	
65253			0.28	0.56	3.19	
65254			2.05	2.42	4.37	
65255			0.66	1.28	5.61	
65256			0.13	0.12	4.62	
65257			3.47	5.28	13.39	
65258			0.05	0.07	3.29	
65259			2.46	5.87	11.38	
65260			2.60	5.31	13.70	
65261			3.03	5.06	9.85	
65262			0.09	0.18	2.35	
65263			1.45	2.38	8.62	
65264			0.41	0.49	4.61	
65265			0.55	1.09	5.44	
65266			4.54	6.91	10.39	
65267			0.48	0.53	6.70	
65268			1.45	2.69	10.14	
65269			3.24	6.89	20.77	
65270			4.14	8.45	16.87	



February 18, 1991

Curragh Resources Inc.
 117 Industrial Road.
 Whitehorse, Yukon
 Y1A 2T8

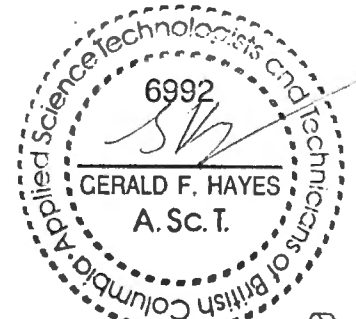
Work Order # 13066

File # 13066a

P.O. # 400294

Assay Certificate

Sample	g/t Au	g/t Ag	%Pb	%Zn	%Fe	SG
65241	0.02	15.4	0.91	1.13	13.84	3.08
65242	0.05	28.6	0.15	0.16	8.56	2.85
65243	0.15	46.7	4.61	6.87	16.51	3.34
65244	0.03	8.4	0.41	0.96	9.56	2.90
65245	0.08	0.2	0.02	0.03	3.80	2.80
65246	0.51	125.6	5.96	11.02	20.20	3.93
65247	0.55	52.2	2.71	4.56	4.68	2.89
65248	0.45	39.4	2.07	4.21	2.59	2.84
65249	0.55	71.5	3.31	6.28	5.82	3.00
65250	0.53	58.0	2.67	5.53	14.24	3.36
65251	0.18	51.9	2.26	4.20	14.39	3.19
65252	0.07	22.1	2.01	1.97	5.90	2.92
65253	0.06	13.1	0.28	0.56	3.19	2.62
65254	0.18	44.4	2.05	2.42	4.37	2.86
65255	0.17	12.5	0.66	1.28	5.61	2.84
65256	0.03	1.6	0.13	0.12	4.62	2.76
65257	0.62	44.7	3.47	5.28	13.39	3.46
65258	0.10	0.8	0.05	0.07	3.29	2.87
65259	0.27	31.7	2.46	5.87	11.38	3.64
65260	0.24	38.7	2.60	5.31	13.70	3.38
65261	0.34	35.7	3.03	5.06	9.85	3.23
65262	0.08	1.3	0.09	0.18	2.35	2.84
65263	0.44	22.9	1.45	2.38	8.62	3.06
65264	0.27	7.4	0.41	0.49	4.61	2.89
65265	0.28	9.8	0.55	1.09	5.44	2.82
65266	0.30	55.2	4.54	6.91	10.39	3.34
65267	0.33	8.3	0.48	0.53	6.70	2.95
65268	0.43	21.6	1.45	2.69	10.14	3.18
65269	0.75	52.8	3.24	6.89	20.77	3.96
65270	0.66	69.6	4.14	8.45	16.87	3.75



February 18, 1991

Work Order # 13066

Curragh Resources Inc.
117 Industrial Road.
Whitehorse, Yukon
Y1A 2T8

File # 13066b

P.O. # 400294

Assay Certificate

Sample	g/t Au	g/t Ag	%Pb	%Zn	%Fe	SG
65271	0.12	0.4	0.07	0.12	5.48	2.83
65272	0.99	71.1	4.88	6.19	18.85	3.77
65273	1.57	189.1	12.53	14.70	13.54	3.74
65274	0.98	84.1	5.53	7.02	17.38	3.66
65275	1.02	86.9	5.69	7.13	17.01	3.64
65276	0.96	136.4	11.55	14.60	19.64	4.37
65277	0.04	0.5	0.10	0.13	3.96	2.82
65278	0.03	0.3	0.05	0.06	4.23	2.95



Page 1

DY PROJECT - DEVIATION ANALYSIS

J. ZBEETNOFF
91DY-03

TOTAL DEPTH	DIRECTION DEG	ANGLE DEG	VERTICAL DEPTH	LATITUDE FEET	DEPARTURE FEET	VERTICAL SECTION	DOG LEG
0	0.0	0.00	0.00	0.00 N	0.00 E	0.00	0.00
166	117.0	0.33	166.00	0.22 S	0.43 E	-0.46	0.20
228	78.0	0.12	223.00	0.28 S	0.63 E	-0.67	0.44
336	289.0	1.30	333.79	0.00 N	0.71 W	0.70	1.43
407	282.0	2.00	406.93	0.42 N	2.84 W	2.87	0.71
537	279.5	2.00	536.87	1.27 N	7.29 W	7.40	0.97
603	279.6	2.00	602.83	1.65 N	9.57 W	9.71	0.00

THE DOGLEB SEVERITY IS IN DEGREES PER 100 FEET
THE VERTICAL SECTION WAS COMPUTED ALONG AZ. 279.78

BASED UPON MINIMUM CURVATURE TYPE CALCULATIONS. THE BOTTOM HOLE
DISPLACEMENT IS 9.71 FEET, IN THE DIRECTION OF AZ. 279.78

Note: Last survey point is @ 537' and
results projected to 603' \Rightarrow ic hole
depth @ 6:30 PM JAN 27/91

Page 1

DY PROJECT - DEVIATION ANALYSIS

J. ZBEETNOFF
91DY-03

TOTAL DEPTH	DIRECTION DEG	ANGLE DEG	VERTICAL DEPTH	LATITUDE FEET	DEPARTURE FEET	VERTICAL SECTION	DOG LEG
0	0.0	0.00	0.00	0.00 N	0.00 E	0.00	0.00
166	117.0	0.33	166.20	0.22 S	0.43 E	-0.48	0.20
223	75.0	0.12	223.00	0.28 S	0.63 E	-0.69	0.44
336	280.0	1.50	336.99	0.00 N	0.71 W	0.86	1.43
407	292.0	3.00	406.95	0.42 W	2.94 W	2.60	0.71
587	270.5	2.00	586.57	1.27 N	7.26 W	7.26	0.07
616	236.0	2.79	612.81	1.68 N	10.32 W	10.35	0.98
661	237.0	3.90	660.75	2.65 N	12.57 W	12.62	0.43
737	294.0	3.52	736.63	4.18 N	16.60 W	17.00	1.08
817	236.0	3.85	816.47	6.28 N	21.22 W	22.06	0.09
876	294.0	3.76	875.35	7.84 N	24.69 W	25.86	0.23
957	295.0	4.25	956.16	10.14 N	29.85 W	31.50	0.64
1037	295.5	4.72	1055.84	13.48 N	36.92 W	39.30	0.47
1147	293.0	5.10	1145.51	16.63 N	43.95 W	46.99	0.48
1216	283.5	5.28	1214.23	19.09 N	49.67 W	53.21	0.23

THE DOGLEG SEVERITY IS IN DEGREES PER 100 FEET
THE VERTICAL SECTION WAS COMPUTED ALONG AZ. 291.03

BASED UPON MINIMUM CURVATURE TYPE CALCULATIONS. THE BOTTOM HOLE
DISPLACEMENT IS 53.21 FEET, IN THE DIRECTION OF AZ. 291.03

TARGET BI

HOLE-ID FROM TO INT SAMPLE# NORTHING EASTING ELEV. Pb+Zn

HOLE-ID	FROM	TO	INT	SAMPLE#	NORTHING	EASTING	ELEV.	Pb+Zn
91D403	544.7	545.5	0.8	65245	901177.9	597595.9	513.84	-1
91D403	545.5	546.2	0.7	65246	901177.9	597595.9	513.05	-1
91D403	546.2	547.6	1.4	65247	901177.8	597595.7	517.36	-1
91D403	547.6	549.7	2.1	65248	901177.9	597595.8	515.97	-1
91D403	549.7	552.6	2.9	65249	901178	597595.3	513.88	-1
91D403	552.6	553.3	0.7	65250	901178.2	597595	511.01	-1
91D403	553.3	554.3	1	65251	901178.2	597594.9	510.31	-1
91D403	554.3	555.7	1.4	65252	901178.3	597594.8	509.32	-1
91D403	555.7	558	2.3	65253	901178.4	597594.6	507.93	-1
91D403	558	559.1	1.1	65254	901178.5	597594.4	505.65	-1
91D403	559.1	561.3	2.2	65255	901178.6	597594.3	504.56	-1
91D403	561.3	562.4	1.1	65256	901178.6	597594	502.37	-1
91D403	571.8	572.9	1.1	65257	901179.3	597592.8	491.96	-1
91D403	572.9	574.1	1.2	65258	901179.3	597592.7	490.87	-1
91D403	574.1	574.8	0.7	65259	901179.4	597592.5	489.68	-1
91D403	574.8	576.1	1.3	65260	901179.4	597592.4	488.99	-1
91D403	576.1	576.8	0.7	65261	901179.5	597592.3	487.7	-1
91D403	576.8	577.7	0.9	65262	901179.5	597592.2	487	-1
91D403	577.7	579.6	1.9	65263	901179.6	597592.1	486.11	-1
91D403	579.6	581.6	2	65264	901179.6	597591.9	484.23	-1
91D403	581.6	584.1	2.5	65265	901179.9	597591.7	482.24	-1
91D403	584.1	585	0.9	65266	901180	597591.4	479.77	-1
91D403	585	586.6	1.6	65267	901180.1	597591.3	479.87	-1
91D403	586.6	588.3	1.7	65268	901180.2	597591.1	477.29	-1
91D403	588.3	589.9	1.6	65269	901180.3	597590.9	475.6	-1
91D403	589.9	591.5	1.6	65270	901180.4	597590.7	474.02	-1
91D403	591.5	592.3	0.8	65271	901180.5	597590.5	472.43	-1
91D403	592.3	594.4	2.1	65272	901180.6	597590.4	471.64	-1
91D403	594.4	595.4	1	65273	901180.7	597590.2	469.56	-1
91D403	595.4	596.3	0.9	65274	901180.8	597590.1	468.57	-1
91D403	596.3	597.3	1	65275	901180.9	597589.9	467.68	-1
91D403	597.3	598.4	1.1	65276	901180.9	597589.9	466.69	-1
91D403	603	604.9	1.9	65277	901181.4	597589.2	461.04	-1
91D403	604.9	607.3	2.4	65278	901181.5	597588.9	459.16	-1

Pb+Zn

.05
16.98
7.27
6.28
9.59
8.20
6.46
3.98
.84
4.47
1.94
.25

545.5 - 552.6
7.2m @ 8.75% Pb+Zn

552.6 - 561.3
8.7m @ 3.32% Pb+Zn

571.8 - 588.3
16.5m @ 3.87% Pb+Zn

588.3 - 598.4
10.1m @ 13.84% Pb+Zn

597585 - 597615