6000 0927

Mining District File Summary Sheet

DISTRICT	Rosebud
DIST_NO	4010
COUNTY If different from written on document	Pershing
TITLE If not obvious	Rosebud Drill Hole File – Hole No. RS-D367-99
AUTHOR	D. Mackerrow; K. Allen; D. Francisco
DATE OF DOC(S)	1999
MULTI_DIST Y / (N?) Additional Dist_Nos:	
QUAD_NAME	Sulphur 7.5'
P_M_C_NAME (mine, claim & company names)	Rosebud Mine; Rosebud Project; Rosebud Mining Co. LLC Hecla Mining Co.; Newmont Gold Co.; North Target Area
COMMODITY If not obvious	gold; silver
NOTES	Drill log; geology; assay; geochemistry; total depth 942' receipt; handwritten notes; downhole camera images [redacted]; downhole survey 75p. 6 down hole camera images

Keep docs at about 250 pages if no oversized maps attached
(for every 1 oversized page (>11x17) with text reduce
the amount of pages by ~25)

Revised: 1/22/08

	Initials	Date
SS:	DD	5/12/08
DB:	mah	
SCANNED:		

RS - D367 - 99

6006 6927 4010

367

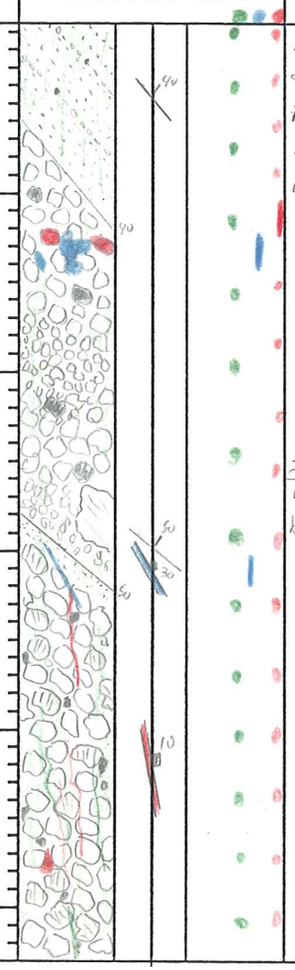
60000927

Hecla MINING COMPANY

- ☐ quartz, chalcedony, silicification
- ☐ faults, fractures
- ☐ FeOx
- ☐ sulfide
- ☐ calcite, carbonate
- ☐ argillization, white clays
- ☐ propylitization
- ☐ potassic alteration
- ☐ chlorite, chloritic clays

ROSEBUD PROJECT
DIAMOND DRILL LOG

HOLE NUMBER	RS-D367-99	LOCATION	North Area target	REMARKS	
PAGE	1 OF 14	NORTHING			25 much Bux
DATE	11-10-99	EASTING			
LOGGED BY	D.G. Macherron	ELEVATION			
SCALE	1" = 10'	AZIMUTH	N 19 W		
TOTAL DEPTH	942	INCLINATION	-38.5		

LITH	OX/RE	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	A
TOS	R	0-180 Tos Epiclastic Sandstone to Conglomerate with Ash Fall Tuff Variable grained sized epiclastic sediments ranging from fine sand to boulders General chloritic alteration stains core pale green. A.L.S. clast at < 1%	10 20 30 40 50		Minimal fractures of tos. Bedding orientation of sandstones 4. 26.8-28.5 Flow banded rhyolite boulder	10.5-13.1 Pyrite masses/or replacements of clast with diameter of 2" 13.1 calcite mass ≈ 3" in diameter 31-40 Narrow pyrite veinlets and chloritic veinlets 32 Calcite swarm at 30° tca	0 10.5 13.1 20 40	10.5 13.1 20 40 52					

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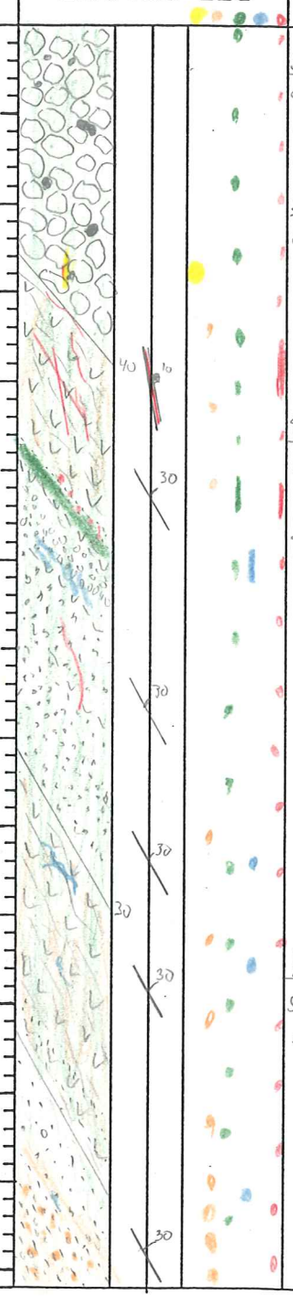
LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
TOS	R	0-180 TOS Epiclastic Sandstones and Conglomerate with Ash Fall Tuff Epiclastic sediments continue to 66'. Ash fall Tuff consist of rhyolite clast is volcanic clay derived matrix. Ash Fall Tuffs are weak to moderately argillized 111-139 Epiclastic sediments have had the chloritic alteration over printed by argillization. Increasing A.L.S. fragments. From 131 matrix of the sediments is A.L.S. and the core is black with speckled appearance	50 60 70 80 90 100 110 120		57-63 Core surface is pitted from loss of clay? 59 Terminated qtz crystal in vugs 85-95 Granule size sandstone 95-111 Ash Fall Tuff beds 111-139 Granule size to conglomeratic sediment,	63-64 Traces of silica along 0° tca vein with Black sulfide 70 Pyrite vein at 10° tca 75 Pyrite aggregations for a collection of sulfides for .3' Disseminated pyrite is ≈ 1% in tos A.E.T. and seds.

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
52	63				
63	69				
69	79.6				
79.6	85				
85	97				
97	111				
111	120				

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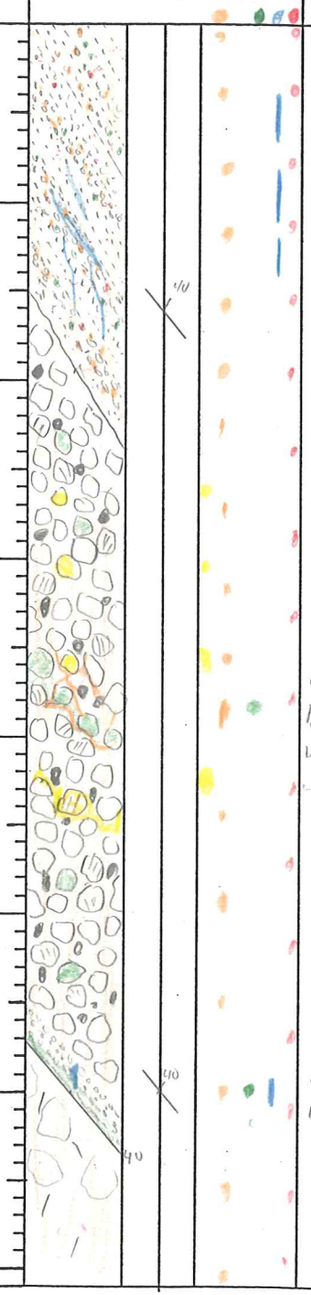
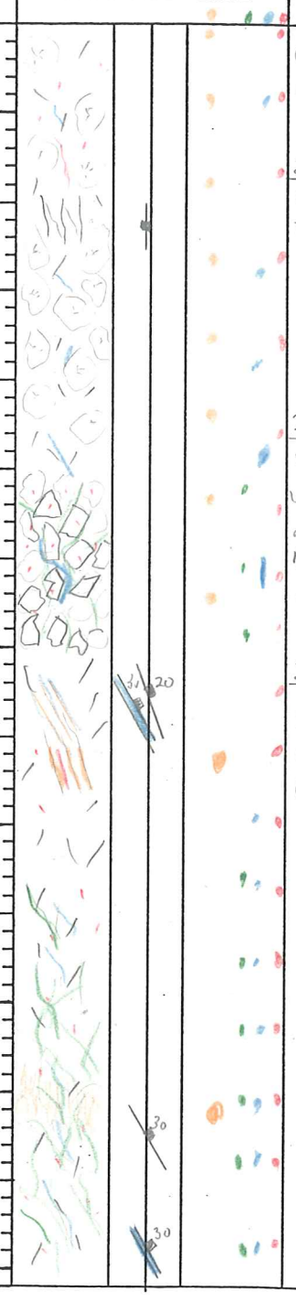
LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
TOS	R	0-180 TOS Epiclastic sandstones and Conglomerate with Ash Fall Tuffs Sediments continue 139.7-180 Epiclastic conglomerate continues with boulder for first 1.5' 155-163.5 weak white clay on fractures. Spotty silicification of clast	120 130 140 150 160 170 180 190		156.7-159 Broken zone with fractures coated with white clay 180 contact at 400Tca	127-137 Calcite veining in sediments on fx 30° tca 148 Partially silicified clasts. 159-160 Hydrothermally altered clay vein 162.1 - 162.5 Silicification of clast matrix 180 Calcite vein in at contact in TOS appear truncated	120	130				
							130	134.6				
							134.6	139.7				
							139.7	147				
							147	156.7				
							156.7	163.5				
							163.5	171.5				
							171.5	180				
		180-942 DOZER Transitional contact with conglomerate/breccia					180	187				

HOLE NUMBER RS-D367-97 PAGE 4 OF 14

LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
Td	R	180-942 DOZER Transitional Dozer contact conglomerate/Breccia continues to 213. General weak argillization has bleach Dozer to pale white gray, with weaker argillization traces of chloritic alteration remain	190 200 210 220 230 240 250 260		Ghost brecciation from contact to 200-202 Crackle Bxo/Fracture Zone 215-224.5 weak crackle breccia with faint chloritic alteration along fracture Breccia contact appear very gradational 242 1/4" Breccia Seams with white clay on surrounding fractures	weak Pyrite and Pyrite after Marcasite is disseminated at ≈ 1% through the Dozer 227-234 white clay and calcite on fracture 237-255 Disseminated cubes of pyrite at ≈ 2%	187 197 207 215 225 230.8 234 247	197 207 215 225 230.8 234 247 267				

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LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
Td	R	180-942 DOZER Fine grained rhyolite continues. Local intervals of auto brecciated texture,	260 270 280 290 300 310 320 330		267-352 Minimal fractures 317.5-320 Autobreccia with chlorite stained matrix 323-330 Autobreccia with chlorite stained matrix	Disseminated pyrite cubes continue at 1-2%. Rarer blades of pyrite after marcasite. 318 Pyrite on fracture surface is very light colored possible arsenopyrite	247 267 277 287 297 312 322	267 277 287 297 312 322 332				

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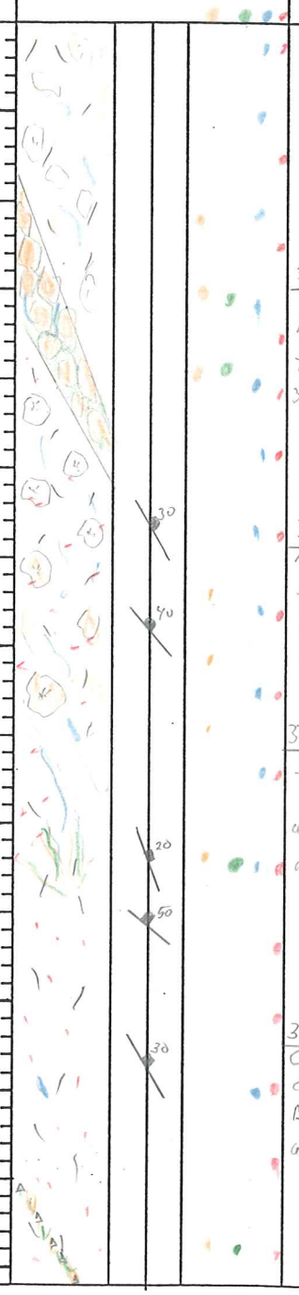
LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
Td	R	180-942 DOZER Fine grained rhyolite with auto breccia or flow laminated textures	330 340 350 360 370 380 390 400		342-350 Auto breccia with traces of rotation from 346-346.2 on fracture 352-382 Auto breccia texture is very faint and the chert look flow laminated 370 Fracturing that may indicate a flow orientation at 30° to a 377-377.2 Chlorite stained green clay matrix breccia. Breccia is oriented at 30° to a	376-382 calcite/chlorite veinlets on fracture filling	332 342 352 362 372 382 387 397	342 352 362 372 382 387 397				

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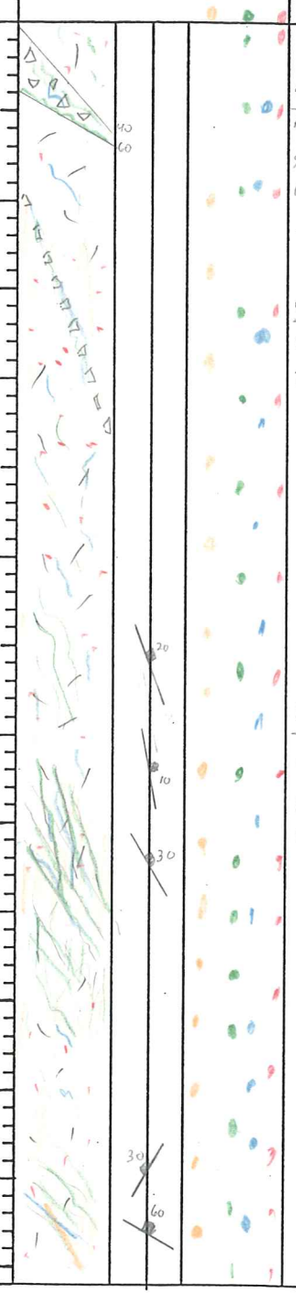
LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
Td	R	180-942 DOZER Rhyolitic flow continues 457-467 mottled coloration with lighter coloration along flow banding	400 410 420 430 440 450 460 470		404.5 – 405.5 Autobreccia with a sharp foot wall cutoff into a gradual hanging wall side 416 Hydrothermal clay matrix mosaic fracture. True thickness is ≈ .3' 436-447 Fracture zone with 10° to fractures with chlorite coating	Pyrite continues at ≈ 1-2% levels. ≤1% Pyrite after marcasite. From 410 General increase in "hydrothermally" altered clays. Green translucent clays fill open fractures. Chlorite increases on fractures. Very faint bleaching of the flow from argillization lightens the color of core

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	
397	407					
407	417					
417	427					
427	437					
437	447					
447	457					
457	467					

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LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2	A
Td	R	180-942 DOZER Rhyolite flow continues. Hydrothermally altered clays are Present on some fractures. 525.3 First open fractures with Drusy quartz. 40° tca Fracture is first orientation, Dark sulfide and silica mottle appearance 535-557.6 Fracture zone with high angle 20 tca and 40° tca main Fracture orientations, Central breccias are on the 40° tca orientation 534-539.7 Includes First breccia zone with white clay, Pyrite, Traces of marcasite	470 480 490 500 510 520 530 540	10 30 30 30 40 40 40 20 40	487-489 0° tca Fracture with chlorite and Pyrite on the surface 503-517 Fracture zone with a high angle Fracture pattern 525.3 - 531 Fracture zone 535-557.6 Fracture zone with White clay, and local breccia intervals	Disseminated Pyrite continues at 1-2% Traces of pyrite after Marcasite 521 Pyrite after Marcasite increases on Fractures from here 524.7-527 First Traces of silicification 526 QTZ Filled Fractures Druzy qtz on open surfaces 527 Fine disseminated Pyrite mottles the Core surface 535-557.6 qtz/calcite Veins up to 1" thick Hydrothermally altered clay	467 477 487 497 507 517 524.2 528 534	477 487 497 507 517 524.2 528 534 539.7					

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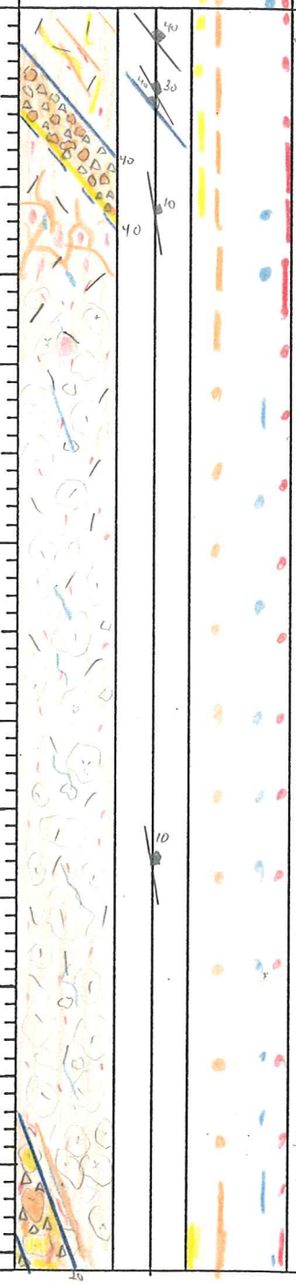
LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
Td	R	180-942 DOZER Fine grained pale gray rhyolite continue. Varible autobreccia or flow laminated textures. Pinw 546 white clay 557.6-606 Very Faint autobreccia texture of the flow. Matrix has a very faint pinkish tint. 609-615.5 20° tcu Fault Zone white clay matrix supports silicified breccia clast. Argillized clasts also are present. Pinw 609 white clay	540 550 560 570 580 590 600 610		535-557.6 upper breccia interval 535-539.7 with a second zone with Hydrothermally altered clay breccia matrix from 546.1-548.5 606 20° tcu Fracture with white clay and marcasite	white clay on fracture continues through the fault/fracture zone between 535-557.6. 545.1-548.5 Clay/qtz matrix breccia Local spots of pale gray hydrothermally altered clay, Breccia matrix has that translucent looks Dark bladed marcasite on fracture with the clay 557.6-606 Weak calcite rxn along micro fx No visible marcasite 609-615 white clays very heavy at 612-612.4

ANALYTICAL DATA						
FROM	TO	W	Au	Ag	Au2	
539.7	545.1					
545.1	548.5					
548.5	552					
552	557.6					
557.6	562					
562	572					
572	582					
582	592					
592	602					
602	606					
606	609					
609	612					

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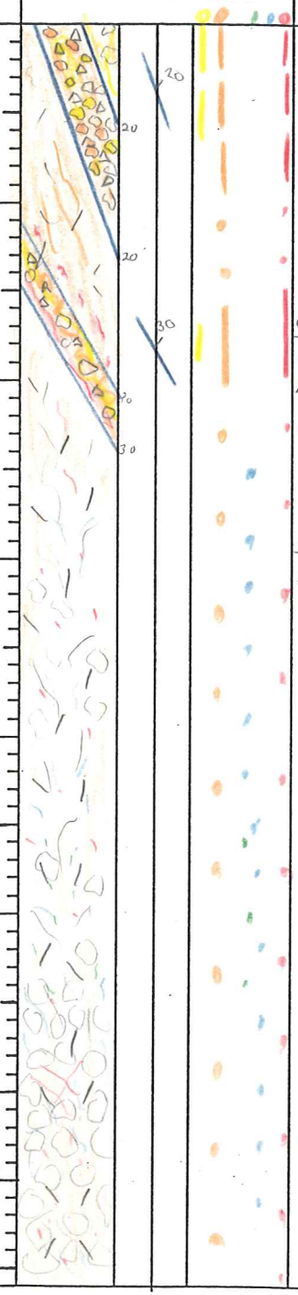
LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
Td	R	180-942 DOZER Fine grained rhyolite with auto breccia texture 624.7-629.8 Translucent hydrothermally altered clays has a faint greenish yellow tint, Marcasite is very limited to 1 visible occurance 629.8-710 Minimal alteration and minimal fracturing. Core is pale blue gray colored. Auto brecciation increases in intensity from 657. Faint trace of chlorite present from 652-667 650-670 Traces of hematite locally lightly stain autobreccia matrix	610 620 630 640 650 660 670 680		609-615.5 200 tcu Fault zone 626.6-629.3 Clay healed fault Breccia. Clay matrix is hydrothermally altered 628.9-629.3 Highly sheared footwall surface	609-612 silicified breccia fragment with white clay and marcasite in the open fracture of the breccia 612-615.5 white clay filled fractures 613-615.5 CLAY healed breccia 624.7-626.1 Increasing pyrite and clay in the hanging wall of fault 626.1-629.3 Heavy clays and pyrite in sheared fault zone 629.3-629.8 Footwall contains heavy fine disseminated py.

ANALYTICAL DATA					
FROM	TO	W	Au	Ag	Au2
612	615.5				
615.5	620.2				
620.2	624.7				
624.7	626.1				
626.1	629.8				
629.8	632				
632	637				
637	642				
642	652				
652	662				
662	672				
672	682				

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LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION	ANALYTICAL DATA FROM	TO	W	Au	Ag	Au2
Td	R	180-942 DOZER Rhyolite autobrecciated flow continues Weakly to non altered Dozer continues to 78' 740-746.2 pyrite forms small 1/16" aggregations at 3-5% 746.2 Marcasite decreases to <0.5% and is not seen. Pyrite alters marcasite 770.6-782 but very few blades 751.8-753 clay filled vesicles 737-738.8 silicified breccia with a footwall surface of 2" thick white silica with rounded breccia 738.5-752 Traces of chlorite stain core light greengray 746.2-753.3 Highly sheared zone between dark sulfide coated shear planes. Core is not broken into fragments but sheared along steep foliation	680 690 700 710 720 730 740 750	20 30 85 40 10	Autobreccia continues 713 First plane of "Zone" 20° tca fault plane with white clay and fine dark sulfide. 713-717 milled breccia healed by silicified clay matrix 732-737 core is broken and healed by calcite and clay. Traces of silicification still present 746.5 10° tca shear plane with dark gray pyrite	713-717 Heavy white and green clays. Pyrite is present and marcasite is limited. Silicification of portions of breccia matrix 717-719.5 White clay filling fractures with marcasite blades in the clay, partial silicification of clay matrix 719.5-722 Highly argillized Rhyolite with white clay veinlets with fine marcasite bladlets. 730.5-732 calcite and clay with marcasite. This interval may have the highest % of marcasite	682 692 702 713 713 719.5 722 727 730.5 732 737 738.8 742 746.2 747.9	692 702 713 717 719.5 722 727 730.5 732 737 738.8 742 746.2 747.9 752				

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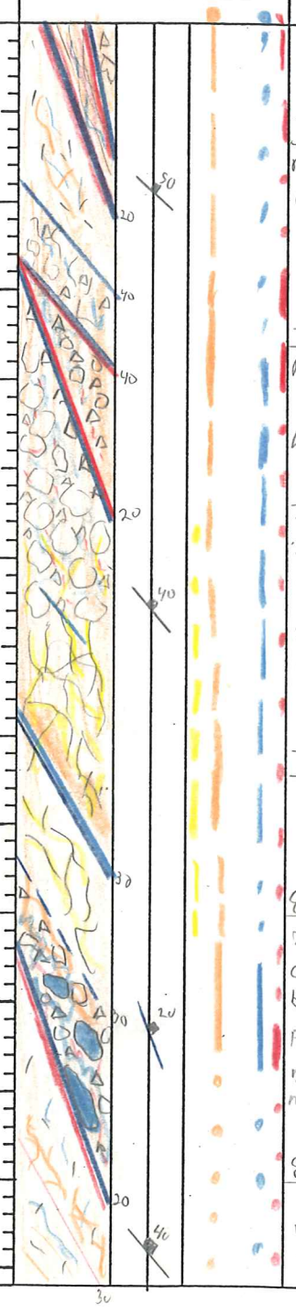
LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
Td	K	DOZER Rhyolite Flow continues Target Fault Zone begining at 713' continues. There appears to be various levels of breccia intensity through the Zone Target zone footwall at at 807.5 20° tca shear plane with dark pyrite ≈1" thick 812-827 Calcite and white clay Veins in weakly fractured Dozer	750 760 770 780 790 800 810 820		753.3-761.7 Relatively intact flow with white clay healed fractures 766.3 40° tca Fracture Breccia intensity increases Down the hole 769.7 20° tca Sulfide coated Shear with even stronger localized breccia 793 Footwall Surface 30° tca 801-807.5 Fault Zone with Massive calcite Fragments begining at 803 Footwall surface has Dark pyrite and massive calcite 812-817 weak Crackle breccia with footwall 1/8" dark sulfide vein at 816.7	753.3-757 weakly Sheared with white clay fracture filling 757-761.7 minor fracture with white clay 761.7-766.1 Brecciated/Sheared with white clay and calcite 766.1-768.8 40° tca Dark sulfide along fracture with calcite healed breccia 768.8-770.6 Breccia around 20° tca Shear plane with dark sulfide. 770.6-792 White argillized Dozer qtz stockwork Calcite veinlets 793 1" 30° tca calcite Vein on footwall surface 797-801 Increasing Argillization 801-802 Pale green clay breccia matrix 802-806 calcite and argillized Dozer 808-817 Fractures filled with white clay

ANALYTICAL DATA					
FROM	TO	W	Au	Ag	Au2
752	753.3				
753.3	757				
757	761.7				
761.7	766.1				
766.1	768.8				
768.8	770.6				
770.6	774				
774	777				
777	782				
782	787				
787	792				
792	793.4				
793.4	797				
797	801				
801	802				
802	806				
806	808				
808	812				
812	817				
817	822				

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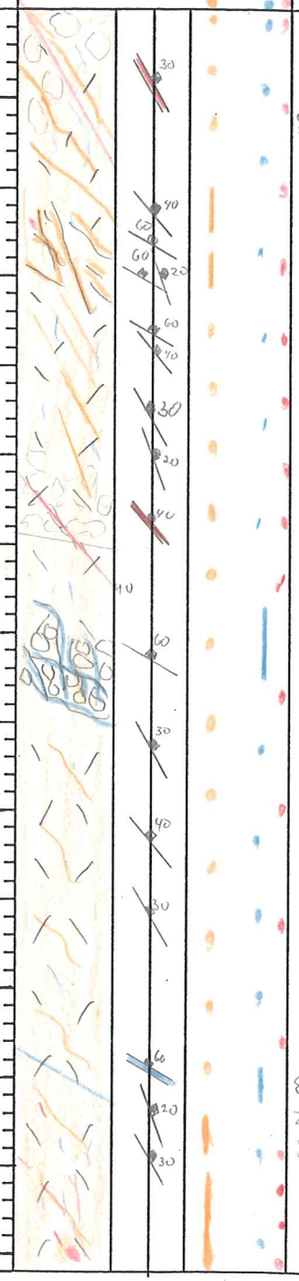
LITH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
Td	R	DOZER Dozer rhyolite continues. 822–827 Auto breccia texture 837–850 Flow texture is disrupted but not quite autobreccia 850 Sharp contact at 80° tca of disrupted flow to more massive style flow	820 830 840 850 860 870 880 890		827–835.1 Fracture zone with 20° tca with obliques at 30° tca, 40–60° Tca Fracture 853.7–857 Calcite healed crackle breccia 883–884 Fracture zone with increase green clay	882–892 Pyrite increase 883–897 Argillization begins to increase and core becomes very soft

ANALYTICAL DATA

FROM	TO	W	Au	Ag	Au2
822	827				
827	832				
832	835.1				
835.1	842				
842	847				
847	850				
850	853.7				
853.7	857				
857	862				
862	867				
867	872				
872	877				
877	882				
882	886				
886	890				

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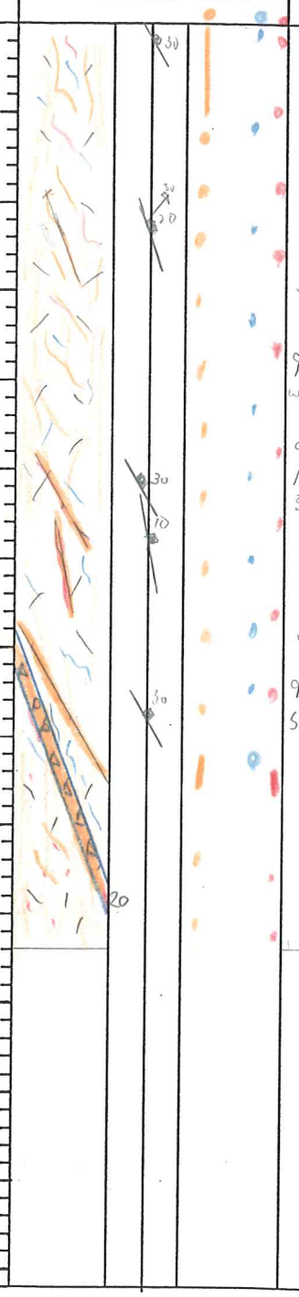
TH.	OX/RED.	LITHOLOGY	FT	GRAPHIC LOG	STRUCTURE	ALTERATION AND MINERALIZATION
Td	d	180-942 DOZER Rhyolite flow continues 917-933.5 High angle fracture possible from feeling the South Ridge fault or Dozer P.L.S. contact orientation	890 900 910 920 930 940 950 960		902 20° tca fracture with with oblique slip slicks at 30° tca 917.6 Fracture at 30° tca with oblique slip at 80° tca 919.5-920.9 10° tca fracture with 30° tca oblique slips 929 30° tca fracture with 20° tca oblique slips 930.4-933 Sheared zone 20° tca	White clay veins continue through the Dozer 930.4-933 EXTREME ARGILLIZATION Rhyolite swelled and crumbled
		TD 942				

ANALYTICAL DATA					
FROM	TO	W	Au	Ag	Au2
890	895				
895	897				
897	902				
902	907				
907	912				
912	917				
917	919.5				
919.5	920.9				
920.9	927				
927	930.4				
930.4	933.5				
933.5	937				
937	942				

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RS-D367-99 DATE: 11-10-99 LOGGED BY: D.G. MacKenna PAGE 1 OF 13

DRILL RUN FROM	DRILL RUN TO	SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH DOWNHOLE DEPTH	ROCK STRENGTH POINT LOAD INDEX (psi)	FRACTURE DATA FRACTURE DENSITY /FT.	FRACTURE DATA AVG. ANGLE TO C.A.	FRACTURE DATA ROUGHNESS	FRACTURE DATA INFILL	DENSITY DATA DOWNHOLE DEPTH	DENSITY DATA SAMPLE WEIGHT (g)	DENSITY DATA DISPLACEMENT (cc)	DENSITY DATA DENSITY (g/cc)
0	7	43	57	37										
7	12	100	98	74										
12	17	100	102	100										
17	22	100	100	84										
22	27	100	102	68										
27	32	100	100	90										
32	37	100	100	100										
37	42	100	96	92										
42	47	100	100	86	Block Error									
47	52	132	142	106										
52	57	100	64	100										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RS-D367-99 DATE: 11-10-99 LOGGED BY: D.G. Mackerron PAGE 2 OF 13

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
57	67	90	95	58										
67	77	100	99	86										
77	87	100	100	63										
87	97	100	100	89										
97	107	100	99	100										
107	117	100	98	84										
117	127	100	96	100										
127	137	100	106	76										
137	147	100	100	92										
147	157	100	103	84										
157	167	83	100	86										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RS-DB67-99 DATE: 11-10-99 LOGGED BY: D.G. MacKerrow PAGE 3 OF 13

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
167	177	100	100	94										
177	187	98	95	67										
187	197	97	100	78										
197	207	95	101	68										
207	217	99	98	86										
217	227	100	100	84										
227	237	74	100	78										
237	247	99	102	90										
247	257	101	101	83										
257	267	100	100	83										
267	277	100	100	88										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RS-D367-99 DATE: 11-11-99 LOGGED BY: D.G. Mackerrow PAGE 4 OF 13

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
277	287	100	100	100										
287	297	100	99	82										
297	302	100	104	100										
302	312	100	100	100										
312	322	100	100	86										
322	332	100	100	75										
332	342	100	100	100										
342	352	100	99	98										
352	362	100	101	95										
362	372	100	100	90										
372	382	100	100	82										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RS-D367-99 DATE: 11-12-99 LOGGED BY: D.G. MacKerrow PAGE 5 OF 13

DRILL RUN		SOLID CORE	TOTAL CORE	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO	RECOVERY (%)	RECOVERY (%)		DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
382	387	100	104	98										
387	397	100	99	95										
397	407	96	99	88										
407	417	98	101	66										
417	427	100	101	77										
427	437	100	100	96										
437	447	65	102	54										
447	457	100	100	84										
457	467	100	100	100										
467	477	100	100	90										
477	487	100	101	91										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RS-D367-99 DATE: 11-12-99 LOGGED BY: D.G. MacKerrow PAGE 6 OF 13

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
487	497	73	100	66										
497	507	62	100	69										
507	517	90	100	83										
517	527	95	100	56										
527	534	27	100	31										
534	542	46	87	19										
542	552	34	110	30										
552	562	43	100	51										
562	572	100	102	82										
572	582	100	100	91										
582	592	100	102	73										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RS-D 367-99 DATE: 11-12-99 LOGGED BY: D.G. Mackerrow PAGE 7 OF 13

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
592	602	100	100	89										
602	607	88	101	74										
607	612	18	88	16										
612	617	80	100	58										
617	622	100	94	76										
622	627	84	100	78										
627	632	90	94	70										
632	637	100	106	100										
637	642	100	100	100										
642	647	100	98	100										
647	652	100	102	98										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RS-D367-99 DATE: 11-13-99 LOGGED BY: D.G. Mackerron PAGE 8 OF 13

DRILL RUN		SOLID CORE	TOTAL CORE	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO	RECOVERY (%)	RECOVERY (%)		DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
652	657	100	106	100										
657	662	100	98	100										
662	667	100	100	100										
667	672	100	100	100										
672	677	100	100	100										
677	682	100	100	100										
682	687	100	100	100										
687	692	100	100	94										
692	697	100	100	100										
697	702	100	100	100										
702	707	100	102	100										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RS-D367-99 DATE: 11-14-99 LOGGED BY: D.G. MacHarrow PAGE 9 OF 13

DRILL RUN FROM	DRILL RUN TO	SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH DOWNHOLE DEPTH	ROCK STRENGTH POINT LOAD INDEX (psi)	FRACTURE DATA FRACTURE DENSITY /FT.	FRACTURE DATA AVG. ANGLE TO C.A.	FRACTURE DATA ROUGHNESS	FRACTURE DATA INFILL	DENSITY DATA DOWNHOLE DEPTH	DENSITY DATA SAMPLE WEIGHT (g)	DENSITY DATA DISPLACEMENT (cc)	DENSITY DATA DENSITY (g/cc)
707	712	100	98	90										
712	717	90	100	22	Two Block 712									
717	722	100	100	34										
722	727	34	46	10										
727	730.5	0	71	20										
730.5	732	87	100	87	Possible .5 error									
732	737	100	100	90										
737	742	100	100	74										
742	747	96	100	44										
747	752	100	102	12										
752	762	94	100	78										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RS-D 367-99 DATE: 11-14-99 LOGGED BY: D.G. Macherrow PAGE 10 OF 13

DRILL RUN		SOLID CORE	TOTAL CORE	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO	RECOVERY (%)	RECOVERY (%)		DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
762	767	100	102	74										
767	772	100	102	46										
772	777	100	98	40										
777	782	96	100	56										
782	787	100	110	58										
787	792	100	90	52										
792	797	100	94	28										
797	802	0	70	10										
802	807	50	92	0										
807	812	96	100	64										
812	817	100	100	74										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RS-D367-99 DATE: 11-14-99 LOGGED BY: D.G. Mackerrow PAGE 11 OF 13

DRILL RUN FROM	DRILL RUN TO	SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH DOWNHOLE DEPTH	ROCK STRENGTH POINT LOAD INDEX (psi)	FRACTURE DATA FRACTURE DENSITY/FT.	FRACTURE DATA AVG. ANGLE TO C.A.	FRACTURE DATA ROUGHNESS	FRACTURE DATA INFILL	DENSITY DATA DOWNHOLE DEPTH	DENSITY DATA SAMPLE WEIGHT (g)	DENSITY DATA DISPLACEMENT (cc)	DENSITY DATA DENSITY (g/cc)
817	822	100	102	96										
822	827	100	94	72										
827	832	0	60	0										
832	834	0	95	0										
834	837	87	103	50										
837	842	100	98	54										
842	847	100	100	52										
847	852	100	100	56										
852	857	100	102	84										
857	862	100	94	84										
862	867	98	106	81										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RS-D367-99 DATE: 11-14-99 LOGGED BY: D.G. Muckerron PAGE 12 OF 13

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
867	872	100	104	58										
872	877	96	102	76										
877	882	70	90	24										
882	886	80	120	55										
886	890	95	90	67										
890	895	100	104	72										
895	897	100	115	100										
897	902	44	100	44										
902	907	98	94	46										
907	912	88	100	66										
912	917	80	100	88										

HECLA MINING COMPANY – ROSEBUD PROJECT
GEOTECHNICAL DRILL LOG

HOLE # RS-D367-99 DATE: 11-15-99 LOGGED BY: D.G. MacHarrow PAGE 13 OF 13

DRILL RUN		SOLID CORE RECOVERY (%)	TOTAL CORE RECOVERY (%)	RQD	ROCK STRENGTH		FRACTURE DATA				DENSITY DATA			
FROM	TO				DOWNHOLE DEPTH	POINT LOAD INDEX (psi)	FRACTURE DENSITY/FT.	AVG. ANGLE TO C.A.	ROUGHNESS	INFILL	DOWNHOLE DEPTH	SAMPLE WEIGHT (g)	DISPLACEMENT (cc)	DENSITY (g/cc)
917	922	80	101	44										
922	927	86	100	64										
927	932	92	104	34										
932	937	82	100	54										
937	942	60	100	84										

Newmont Gold Core Form

Hole# RS-D367-99
Logged by D.G. Mackenzie
Date 11-10-99
Area North Area Target
Coords
Az/Incl N 20 W / -38.5
Total Depth 942
Contractor Action

Footage	% Rec	RQD	Litho: Formation	Litho: Rock type	Litho: Color	Au oz/st	Ag oz/st	Graphic	Structure: Attitudes	Structure: fault	Structure: breccia	Structure: vein	Structure: gouge	Comments	Alteration: Silic	Alteration: argillic	Alteration: clay	Alteration: prop	Alteration: Sericite	Alteration: Chlorite	Alteration:	Met.: FEOX	Met.: CO3	Met.: Sulfide	Mineralogy: Pyrite	Mineralogy: Marcasite	Mineralogy: Calc/Dolo	Mineralogy: Clay
			TOS	Seds	Grn									0-180 TOS EPICLASTIC SANDSTONE, CONGLOMERATE AND ASH FALL TUFF	0	0	0	0	0	1		0	0	0	1	0	0	0
																									2/1		3/0	
20																												
																											1	
40																												
60														66-76 ASH FALL TUFF														
															1/0										2			
														95-111 ASHFALL TUFF											1			
80																												
														111-139 GRANULE SIZE SANDSTONE														
100																												
																1/1				0								
120																												
														130-139.7 Elevated A.L.S. Fragments and A.L.S. Sandstone matrix														
140																												
160																												
180			TI	Ply		Wstr gr			90					180 942 DOZER														
														Marcasite is replaced by pyrite												1		
200																												1

RECORDSLD.DWG Revised 3/17/98

Newmont Gold Core Form

Hole# RS-D367-99
Logged by D. G. MacKierron
Date 11-11-99
Area North Area Target
Coords
Az/Incl N20°W / -38.1
Total Depth 942
Contractor Action

Footage	% Rec	RQD	Litho: Formation	Litho: Rock type	Litho: Color	Au oz/st	Ag oz/st	Graphic	Structure: Attitudes	Structure: fault	Structure: breccia	Structure: vein	Structure: gouge	Comments	Alteration: Silic	Alteration: argillic	Alteration: clay	Alteration: prop	Alteration: Sericite	Alteration: Chlorite	Met.: FEOX	Met.: CO3	Met.: Sulfide	Mineralogy: Pyrite	Mineralogy: Marcasite	Mineralogy: Calc/Dolo	Mineralogy: Clay
200			Td	Rhy	Gray									DOZER	0	1	0	0	0	0	0	0	1	1	1	1	1
																											0
																				1							
220																0											
																				0				Tr			1
																											0
240																				1							
																1											
																0											
260																				0							
																1											
																0											
280																				1							
																				0							
300																											
320																				1							
																				0							
																				1							
																				0							
340																1											
																									0		
360																											
																0				1							
380																				0							
400																				T							

Newmont Gold Core Form

Hole# RS-D367-99
Logged by D.G. Macherron
Date 11-12-99
Area Northwest Target Area
Coords
Az/Incl N20°W / -38.5
Total Depth 942
Contractor Actio
Page 3 of 5

Footage	% Rec	RQD	Litho: Formation	Litho: Rock type	Litho: Color	Au oz/st	Ag oz/st	Graphic	Structure: Attitudes	Structure: fault	Structure: breccia	Structure: vein	Structure: gouge	Comments	Alteration: Silic	Alteration: argillic	Alteration: clay	Alteration: prop	Alteration: Sericite	Alteration: Chlorite	Met.: FEOX	Met.: CO3	Met.: Sulfide	Mineralogy: Pyrite	Mineralogy: Marcasite	Mineralogy: Calc/Dolo	Mineralogy: Clay
400			Td	Rhy	Wht Gray									DOZER	0	0	0	0	0	0	0	0	0	1	0	1	0
																1				1							
420														From 410 Hydrothermally altered clay on Ft													
440																											
460																				0							
480																				1							
500																											
																				0							
520															1									2			
																											1
														535- 539.7 Fault		2									2	2	2
540								40						545.1- 548.5 Fault											1	0	
															6	1									0		1
560																								1			0
580																											
600																											

Newmont Gold Core Form

Hole# RS-D367-99
Logged by D.G. MacHarrow
Date 11-13-99
Area
Coords
Az/Incl N200W / -38.6
Total Depth 942
Contractor Action

Footage	% Rec	RQD	Litho: Formation	Litho: Rock type	Litho: Color	Au oz/st	Ag oz/st	Graphic	Structure: Attitudes	Structure: fault	Structure: breccia	Structure: vein	Structure: gouge	Comments	Alteration: Silic	Alteration: argillic	Alteration: clay	Alteration: prop	Alteration: Sericite	Alteration: Chlorite	Met.: FEOX	Met.: CO3	Met.: Sulfide	Mineralogy: Pyrite	Mineralogy: Marcasite	Mineralogy: Calc/Dolo	Mineralogy: Clay
600			Td	Rhy	Gry white									DOZER	0	1	0	0	0	0	0	0	0	1	0	0	0
																								2			
																									1		1
															1	3											3
															2	2											
															1										0		
620															3	1								1			1
									14																		
									20															3			
															1	3											3
									30						0	1								1	Tr 0		0
																										1	
640									30																		
																Tr											
																				1							
660																											
																				0							
680																											
700														The "Zone"													
														Begining at 713													
														with 30° to Fx shear		1											
														Plane	1										1		
720									30					713-738.8 First													
														Fault zone													
														746.5-753.3 Second													
														Shear/Fault zone													
740														761.7-774 Third	9									2	Tr		
														Fault zone		3											
									10					801-808 Forth Fault													
														zone		1								1			
														774-793.4 qtz vein													
760									30					stockworks		2											
																								5			
																								2			
																								1			
780									20																		
																3											
																2											
800																											

Newmont Gold Core Form

Hole# RS-D367-99
Logged by D.G. Muckeiron
Date 11-13-99
Area
Coords
Az/Incl N20°W/38.5
Total Depth 942
Contractor Action

Footage	% Rec	RQD	Litho: Formation	Litho: Rock type	Litho: Color	Au oz/st	Ag oz/st	Graphic	Structure: Attitudes	Structure: fault	Structure: breccia	Structure: vein	Structure: gouge	Comments	Alteration: Silic	Alteration: argillic	Alteration: clay	Alteration: prop	Alteration: Sericite	Alteration: Chlorite	Met.: FEOX	Met.: CO3	Met.: Sulfide	Mineralogy: Pyrite	Mineralogy: Marcasite	Mineralogy: Calc/Dolo	Mineralogy: Clay
800			T8	Rcy	Gry/wh									DOZER	0	2	0	0	0	0	0	0	0	1	0	2	0
																3										3	
																								2			
																1								1		1	1
														808 Footwall shear													
820									20					Plane of target zone													
																2											
																1											
																										2	
840																											
																										1	
860																											
																										2	
880																											
																1								1			1
																3								1			
																1											
900																											
																2											
920																1											
																2											
																3											
																1											
940														Td 942													
960																											

RMGN Job Number:_____

Date Received:_____

Rocky Mountain Geochemical of Nevada

840 GREG STREET

SPARKS, NEVADA 89431

Phone: (702) 359-6311, Fax: (702) 359-2944

SAMPLE SUBMITTAL SHEET

Address Report To:
Kurt Allen
Rosebud Mining LLC. P.O. Box 2610
Winnemucca NV 89446

Phone/Fax: 775-623-6917 / 775-623-6767

Send Invoice To: Kurt Allen
Rosebud Mining LLC
P.O. Box 2610
Winnemucca NV 89446

Client's Project No._____

Shipment No._____

Date Shipped: 11-18-99

No. of Cartons:_____

No. of Samples: 116

Copy of Report To: Kurt Allen Only

List Sample Numbers	Material Description	List Elements To Be Determined	Indicate Method Fire/Grav.	Fire/AA	Geochem
RS-17367-99	Core	Au Ag Use Rosebud			
Samples listed		Mine development			
on attachment		protocol			
		NGC 30 element ICP			
		Partial Digestion			
		Composite as shown			
		on attachment			
1	Pulp	Rosebud Production			
		standard at end of Run			

NOT RESPONSIBLE FOR LOSS OF SAMPLES DUE TO FIRE OR THEFT.

Pulp & Reject Disposition: Pulps and Rejects will be discarded unless otherwise noted.

	Bulk Rejects	Pulp
Return at Customer's Expense	X	X
via:		
Store at $1.00 per 100 lbs/month		
Discard immediately		

White Copy: Send to RMGN
Yellow Copy: Customer's Copy
Pink Copy: Enclose with Samples

THE ABOVE WORK IS AUTHORIZED BY:_____ DATE:_____

RS-D367-99

Depth From	To	Interval	Au	Ag	ICP	Composite Interval	Sample Number
0	10.5	10.5	x	x			1
10.5	13.1	2.6	x	x			2
13.1	20	6.9	x	x			3
20	40	20	x	x			4
40	52	12	x	x			5
52	63	11	x	x			6
63	69	6	x	x			7
69	79.6	10.6	x	x			8
79.6	85	5.4	x	x			9
85	97	12	x	x			10
97	111	14	x	x			11
111	120	9	x	x			12
120	130	10	x	x			13
130	134.6	4.6	x	x			14
134.6	139.7	5.1	x	x			15
139.7	147	7.3	x	x			16
147	156.7	9.7	x	x			17
156.7	163.5	6.8	x	x			18
163.5	171.5	8	x	x			19
171.5	180	8.5	x	x			20
180	187	7	x	x			21
187	197	10	x	x			22
197	207	10	x	x			23
207	215	8	x	x			24
215	225	10	x	x			25
225	230.8	5.8	x	x			26
230.8	234	3.2	x	x			27
234	247	13	x	x			28
247	267	20	x	x			29
267	277	10	x	x			30
277	287	10	x	x			31
287	297	10	x	x			32
297	312	15	x	x			33
312	322	10	x	x			34
322	332	10	x	x			35
332	342	10	x	x			36
342	352	10	x	x			37
352	362	10	x	x			38
362	372	10	x	x			39
372	382	10	x	x			40
382	387	5	x	x			41

387	397	10	x	x			42
397	407	10	x	x			43
407	417	10	x	x			44
417	427	10	x	x			45
427	437	10	x	x			46
437	447	10	x	x			47
447	457	10	x	x			48
457	467	10	x	x			49
467	477	10	x	x			50
477	487	10	x	x			51
487	497	10	x	x			52
497	507	10	x	x			53
507	517	10	x	x			54
517	524.2	7.2	x	x			55
524.2	528	3.8	x	x			56
528	534	6	x	x			57
534	539.7	5.7	x	x			58
539.7	545.1	5.4	x	x			59
545.1	548.5	3.4	x	x			60
548.5	552	3.5	x	x	x	35	61
552	557.6	5.6	x	x			62
557.6	562	4.4	x	x			63
562	572	10	x	x			64
572	582	10	x	x			65
582	592	10	x	x			66
592	602	10	x	x			67
602	606	4	x	x			68
606	609	3	x	x			69
609	612	3	x	x			70
612	615.5	3.5	x	x			71
615.5	620.2	4.7	x	x			72
620.2	624.7	4.5	x	x			73
624.7	626.1	1.4	x	x			74
626.1	629.8	3.7	x	x			75
629.8	632	2.2	x	x	x	30	76
632	637	5	x	x			77
637	642	5	x	x			78
642	652	10	x	x			79
652	662	10	x	x			80
662	672	10	x	x			81
672	682	10	x	x			82
682	692	10	x	x			83
692	702	10	x	x			84
702	713	11	x	x			85

713-808 Previously shipped

808	812	4	x	x			86
812	817	5	x	x			87
817	822	5	x	x			88
822	827	5	x	x			89
827	832	5	x	x			90
832	835.1	3.1	x	x			91
835.1	842	6.9	x	x			92
842	847	5	x	x			93
847	850	3	x	x	x	42	94
850	853.7	3.7	x	x			95
853.7	857	3.3	x	x			96
857	862	5	x	x			97
862	867	5	x	x			98
867	872	5	x	x			99
872	877	5	x	x			100
877	882	5	x	x			101
882	886	4	x	x			102
886	890	4	x	x			103
890	895	5	x	x			104
895	897	2	x	x	x	47	105
897	902	5	x	x			106
902	907	5	x	x			107
907	912	5	x	x			108
912	917	5	x	x			109
917	919.5	2.5	x	x			110
919.5	920.9	1.4	x	x			111
920.9	927	6.1	x	x			112
927	930.4	3.4	x	x			113
930.4	933.5	3.1	x	x			114
933.5	937	3.5	x	x			115
937	942	5	x	x	x	45	116

RUSH

RMGN Job Number:

Date Received:

Rocky Mountain Geochemical of Nevada

840 GREG STREET

SPARKS, NEVADA 89431

Phone: (702) 359-6311, Fax: (702) 359-2944

SAMPLE SUBMITTAL SHEET

Address Report To:
Kurt Allen
Rosebud Mining LLC P.O. Box 2610
Winnemucca NV 89446

Phone/Fax: 775-623-6912 / 775-623-6167

Send Invoice To: Kurt Allen
Rosebud Mining LLC.
P.O. Box 2610
Winnemucca NV 89446

Client's Project No.
Shipment No.
Date Shipped: 11-15-99
No. of Cartons:
No. of Samples: 28
Copy of Report To:
Kurt Allen only

List Sample Numbers	Material Description	List Elements To Be Determined	Indicate Method Fire/Grav.	Fire/AA	Geochem
RS-D 367-99 Samples listed on attachment	Core	Au Ag Use Rosebud Mine development protocol			
RUSH 3 Day TURN AROUND		NGC 30 element ICP Partial Digestion Composite as shown on attachment			
1	Pulp	Rosebud Production standard at end of Run			

NOT RESPONSIBLE FOR LOSS OF SAMPLES DUE TO FIRE OR THEFT.

Pulp & Reject Disposition: Pulps and Rejects will be discarded unless otherwise noted.

	Bulk Rejects	Pulp
Return at Customer's Expense	X	X
via:		
Store at $1.00 per 100 lbs/month		
Discard immediately		

White Copy: Send to RMGN
Yellow Copy: Customer's Copy
Pink Copy: Enclose with Samples

THE ABOVE WORK IS AUTHORIZED BY: D B McKenzie DATE: 11-15-99

RS-D367-99

Depth From	To	Interval	Au	Ag	ICP	Composite Interval	Sample Number
713	717	4	x	x			1
717	719.5	2.5	x	x	x	6.5	2
719.5	722	2.5	x	x			3
722	727	5	x	x			4
727	730.5	3.5	x	x			5
730.5	732	1.5	x	x			6
732	737	5	x	x	x	17.5	7
737	738.8	1.8	x	x	x	1.8	8
738.8	742	3.2	x	x			9
742	746.2	4.2	x	x	x	7.4	10
746.2	747.9	1.7	x	x			11
747.9	753.3	5.4	x	x	x	7.1	12
753.3	757	3.7	x	x			13
757	761.7	4.7	x	x			14
761.7	766.1	4.4	x	x	x	12.8	15
766.1	768.8	2.7	x	x	x	2.7	16
768.8	770.6	1.8	x	x	x	1.8	17
770.6	774	3.4	x	x			18
774	777	3	x	x			19
777	782	5	x	x	x	11.4	20
782	787	5	x	x			21
787	792	5	x	x	x	10	22
792	793.4	1.4	x	x	x		23
793.4	797	3.6	x	x			24
797	801	4	x	x	x	7.6	25
801	802	1	x	x	x		26
802	806	4	x	x	x	5	27
806	808	2	x	x		2	28

Down Hole Survey Data
RS-D367-99

Footage	Measured Bearing	Corrected Azimuth	Measured Inclination	Calculated Dip
		-15.66		
50	35	340.7	50.5	-39.5
102	34.5	341.2	50.5	-39.5
302	37	338.7	50	-40.0
502	36.0	339.7	50.0	-40.0
702	37.5	338.2	49.9	-40.1
932	36	339.7	49	-41.0

INSPECTORATE

INSPECTORATE AMERICA CORPORATION
840 Greg Street
Sparks, Nevada 89431
Tel:775-359-6311
Fax: 775-359-2944

5-Dec-99

ROSEBUD MINING COMPANY
P.O. BOX 2610
58 MILES WEST OF
WINNEMUCCA, NV 89446

Certificate of Analysis

Attn: Kurt Allen
Received: 19-Nov-99 07:18
Project: RS-D367-99
PO #: Ref. 99-44-21

Job: 993790R
Status: Final

Drill Core

Sample Id	Au FA/AA/AAS ppb	Au FA/AA/AAS oz/ton	Au FA oz/ton	Ag FA/AA/AAS ppm	Ag FA/AA/AAS oz/ton	Ag FA oz/ton
RS-D367-99 0-10.5	12	0.000	NA	1.0	0.028	NA
RS-D367-99 10.5-13.1	283	0.008	NA	1.6	0.048	NA
RS-D367-99 13.1-20	143	0.004	NA	1.3	0.037	NA
RS-D367-99 20-40	112	0.003	NA	0.7	0.021	NA
RS-D367-99 40-52	36	0.001	NA	1.4	0.040	NA
RS-D367-99 52-63	113	0.003	NA	1.3	0.039	NA
RS-D367-99 63-69	143	0.004	NA	1.8	0.054	NA
RS-D367-99 69-79.6	36	0.001	NA	0.9	0.026	NA
RS-D367-99 79.6-85	2	0.000	NA	0.5	0.016	NA
RS-D367-99 85-97	11	0.000	NA	0.4	0.012	NA
RS-D367-99 97-111	2	0.000	NA	0.2	0.006	NA
RS-D367-99 111-120	4	0.000	NA	0.4	0.013	NA
RS-D367-99 120-130	4	0.000	NA	0.3	0.010	NA
RS-D367-99 130-134.6	9	0.000	NA	0.7	0.021	NA
RS-D367-99 134.6-139.7	5	0.000	NA	0.7	0.019	NA
RS-D367-99 139.7-147	48	0.001	NA	0.9	0.027	NA
RS-D367-99 147-156.7	22	0.001	NA	0.5	0.015	NA
RS-D367-99 156.7-163.5	32	0.001	NA	0.9	0.026	NA
RS-D367-99 163.5-171.5	27	0.001	NA	0.7	0.019	NA
RS-D367-99 171.5-180	14	0.000	NA	0.6	0.018	NA

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RS-D367-99 180-187	32	0.001	NA	0.2	0.007	NA
RS-D367-99 187-197	20	0.001	NA	0.4	0.013	NA
RS-D367-99 197-207	52	0.002	NA	0.9	0.025	NA
RS-D367-99 207-215	23	0.001	NA	0.6	0.018	NA
RS-D367-99 215-225	27	0.001	NA	1.0	0.028	NA
RS-D367-99 225-230.8	57	0.002	NA	0.7	0.020	NA
RS-D367-99 230.8-234	64	0.002	NA	0.8	0.023	NA
RS-D367-99 234-247	21	0.001	NA	0.5	0.014	NA
RS-D367-99 247-267	23	0.001	NA	0.6	0.017	NA
RS-D367-99 267-277	19	0.001	NA	0.5	0.014	NA
RS-D367-99 277-287	25	0.001	NA	0.7	0.020	NA
RS-D367-99 287-297	20	0.001	NA	1.2	0.035	NA
RS-D367-99 297-312	32	0.001	NA	0.4	0.012	NA
RS-D367-99 312-322	24	0.001	NA	0.6	0.017	NA
RS-D367-99 322-332	20	0.001	NA	0.7	0.021	NA
RS-D367-99 332-342	4	0.000	NA	0.5	0.015	NA
RS-D367-99 342-352	13	0.000	NA	0.5	0.016	NA
RS-D367-99 352-362	24	0.001	NA	0.3	0.010	NA
RS-D367-99 362-372	12	0.000	NA	0.3	0.010	NA
RS-D367-99 372-382	35	0.001	NA	0.4	0.011	NA

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RS-D367-99 382-387	24	0.001	NA	0.5	0.016	NA
RS-D367-99 387-397	16	0.000	NA	0.5	0.015	NA
RS-D367-99 397-407	10	0.000	NA	0.5	0.016	NA
RS-D367-99 407-417	9	0.000	NA	2.4	0.070	NA
RS-D367-99 417-427	24	0.001	NA	1.1	0.033	NA
RS-D367-99 427-437	31	0.001	NA	0.7	0.021	NA
RS-D367-99 437-447	24	0.001	NA	0.5	0.014	NA
RS-D367-99 447-457	11	0.000	NA	0.5	0.015	NA
RS-D367-99 457-467	4	0.000	NA	0.3	0.008	NA
RS-D367-99 467-477	7	0.000	NA	0.2	0.005	NA
RS-D367-99 477-487	13	0.000	NA	0.5	0.016	NA
RS-D367-99 487-497	18	0.001	NA	0.5	0.014	NA
RS-D367-99 497-507	15	0.000	NA	0.7	0.019	NA
RS-D367-99 507-517	400	0.012	NA	1.0	0.028	NA
RS-D367-99 517-524.2	26	0.001	NA	0.9	0.025	NA
RS-D367-99 524.2-528	163	0.005	NA	0.9	0.027	NA
RS-D367-99 528-534	802	0.023	NA	2.5	0.073	NA
RS-D367-99 534-539.7	802	0.023	NA	3.5	0.102	NA
RS-D367-99 539.7-545.1	764	0.022	NA	2.4	0.070	NA
RS-D367-99 545.1-548.5	859	0.025	NA	2.2	0.065	NA

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RS-D367-99 548.5-552	264	0.008	NA	1.8	0.052	NA
RS-D367-99 552-557.6	58	0.002	NA	0.6	0.018	NA
RS-D367-99 557.6-562	22	0.001	NA	0.7	0.019	NA
RS-D367-99 562-572	11	0.000	NA	0.4	0.013	NA
RS-D367-99 572-582	29	0.001	NA	0.3	0.009	NA
RS-D367-99 582-592	17	0.000	NA	0.6	0.017	NA
RS-D367-99 592-602	18	0.001	NA	0.3	0.009	NA
RS-D367-99 602-606	66	0.002	NA	1.0	0.028	NA
RS-D367-99 606-609	861	0.025	NA	1.9	0.056	NA
RS-D367-99 609-612	1130	0.033	NA	2.1	0.060	NA
RS-D367-99 612-615.5	58	0.002	NA	1.5	0.044	NA
RS-D367-99 615.5-620.2	517	0.015	NA	1.2	0.035	NA
RS-D367-99 620.2-624.7	63	0.002	NA	1.0	0.029	NA
RS-D367-99 624.7-626.1	76	0.002	NA	1.1	0.033	NA
RS-D367-99 626.1-629.8	1839	0.054	0.034	4.5	0.132	0.205
RS-D367-99 629.8-632	17	0.000	NA	0.5	0.014	NA
RS-D367-99 632-637	18	0.001	NA	1.0	0.029	NA
RS-D367-99 637-642	11	0.000	NA	0.2	0.007	NA
RS-D367-99 642-652	15	0.000	NA	0.1	0.004	NA
RS-D367-99 652-662	16	0.000	NA	0.2	0.007	NA

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Drill Core

Sample Id	Au FA/AA/AAS ppb	Au FA/AA/AAS oz/ton	Au FA oz/ton	Ag FA/AA/AAS ppm	Ag FA/AA/AAS oz/ton	Ag FA oz/ton
RS-D367-99 662-672	414	0.012	NA	1.4	0.042	NA
RS-D367-99 672-682	22	0.001	NA	0.6	0.018	NA
RS-D367-99 682-692	80	0.002	NA	0.5	0.016	NA
RS-D367-99 692-702	301	0.009	NA	0.8	0.024	NA
RS-D367-99 702-713	26	0.001	NA	0.4	0.013	NA
RS-D367-99 808-812	19	0.001	NA	0.7	0.019	NA
RS-D367-99 812-817	20	0.001	NA	0.4	0.012	NA
RS-D367-99 817-822	24	0.001	NA	0.8	0.024	NA
RS-D367-99 822-827	549	0.016	NA	1.1	0.033	NA
RS-D367-99 827-832	14	0.000	NA	1.0	0.028	NA
RS-D367-99 832-835.1	22	0.001	NA	0.4	0.013	NA
RS-D367-99 835.1-842	210	0.006	NA	0.5	0.014	NA
RS-D367-99 842-847	13	0.000	NA	0.8	0.023	NA
RS-D367-99 847-850	63	0.002	NA	0.6	0.017	NA
RS-D367-99 850-853.7	25	0.001	NA	0.7	0.020	NA
RS-D367-99 853.7-857	59	0.002	NA	0.5	0.016	NA
RS-D367-99 857-862	67	0.002	NA	0.7	0.019	NA
RS-D367-99 862-867	17	0.000	NA	0.6	0.017	NA
RS-D367-99 867-872	16	0.000	NA	0.7	0.020	NA
RS-D367-99 872-877	<2	0.000	NA	0.7	0.021	NA

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Drill Core

Sample Id	Au FA/AA/AAS ppb	Au FA/AA/AAS oz/ton	Au FA oz/ton	Ag FA/AA/AAS ppm	Ag FA/AA/AAS oz/ton	Ag FA oz/ton
RS-D367-99 877-882	26	0.001	NA	0.2	0.007	NA
RS-D367-99 882-886	28	0.001	NA	1.0	0.030	NA
RS-D367-99 886-890	58	0.002	NA	0.5	0.015	NA
RS-D367-99 890-895	28	0.001	NA	1.1	0.032	NA
RS-D367-99 895-897	14	0.000	NA	0.4	0.011	NA
RS-D367-99 897-902	16	0.000	NA	1.0	0.029	NA
RS-D367-99 902-907	13	0.000	NA	0.4	0.013	NA
RS-D367-99 907-912	35	0.001	NA	0.7	0.020	NA
RS-D367-99 912-917	39	0.001	NA	0.7	0.020	NA
RS-D367-99 917-919.5	108	0.003	NA	0.6	0.018	NA
RS-D367-99 919.5-920.9	69	0.002	NA	1.3	0.037	NA
RS-D367-99 920.9-927	28	0.001	NA	0.6	0.017	NA
RS-D367-99 927-930.4	30	0.001	NA	1.1	0.032	NA
RS-D367-99 930.4-933.5	33	0.001	NA	0.7	0.019	NA
RS-D367-99 933.5-937	38	0.001	NA	0.7	0.021	NA
RS-D367-99 937-942	60	0.002	NA	1.0	0.029	NA

Pulp

STD 75205	990	0.029	NA	2.2	0.064	NA

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PO #: Ref. 99-44-21

Job: 993790R

Status: Final

Drill Core

Sample Id	Ag ICP ppm	Al ICP %	As ICP ppm	B ICP ppm	Ba ICP ppm	Bi ICP ppm	Ca ICP %	Cd ICP ppm	Co ICP ppm	Cr ICP ppm	Cu ICP ppm
RS-D367-99 517-552	0.4	0.18	118	23	63	2	0.10	<0.5	<1	28	21
RS-D367-99 602-632	0.2	0.22	95	24	131	3	0.11	0.5	<1	30	23
RS-D367-99 632-850	<0.1	0.36	6	19	133	1	0.60	<0.5	<1	10	3
RS-D367-99 850-897	<0.1	0.32	23	18	210	1	0.62	<0.5	<1	16	3
RS-D367-99 897-942	<0.1	0.31	138	29	119	<1	0.47	0.8	<1	13	5

Sample Id	Fe ICP %	Hg HYG ppb	K ICP %	La ICP ppm	Mg ICP %	Mn ICP ppm	Mo ICP ppm	Na ICP %	Ni ICP ppm	P ICP ppm	Pb ICP ppm
RS-D367-99 517-552	1.29	77	0.23	23	0.01	58	6	0.49	11	38	21
RS-D367-99 602-632	1.65	77	0.23	21	0.02	83	10	0.39	10	29	26
RS-D367-99 632-850	1.37	49	0.34	29	0.04	354	3	0.61	2	32	21
RS-D367-99 850-897	1.24	52	0.45	39	0.03	157	3	0.62	2	54	31
RS-D367-99 897-942	2.09	52	0.41	33	0.05	127	3	0.91	2	26	28

Sample Id	Sb ICP ppm	Se ICP ppm	Sr ICP ppm	Ti ICP %	Tl ICP ppm	V ICP ppm	W ICP ppm	Zn ICP ppm
RS-D367-99 517-552	2	3	64	<0.01	<0.5	<2	<1	59

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Sample Id	Sb ICP ppm	Se ICP ppm	Sr ICP ppm	Ti ICP %	Tl ICP ppm	V ICP ppm	W ICP ppm	Zn ICP ppm
RS-D367-99 602-632	2	1	65	<0.01	<0.5	<2	<1	49
RS-D367-99 632-850	<2	<1	107	<0.01	<0.5	<2	<1	68
RS-D367-99 850-897	<2	<1	85	<0.01	<0.5	<2	<1	67
RS-D367-99 897-942	<2	3	82	<0.01	<0.5	<2	<1	90

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Job: 993790R

Status: Final

Abbreviations:

Parameters:

Au	: Gold
Ag	: Silver
Al	: Aluminum
As	: Arsenic
B	: Boron
Ba	: Barium
Bi	: Bismuth
Ca	: Calcium
Cd	: Cadmium
Co	: Cobalt
Cr	: Chromium
Cu	: Copper
Fe	: Iron
Hg	: Mercury
K	: Potassium
La	: Lanthanum
Mg	: Magnesium
Mn	: Manganese
Mo	: Molybdenum
Na	: Sodium
Ni	: Nickel
P	: Phosporus
Pb	: Lead

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PO #: Ref. 99-44-21

Job: 993790R
Status: Final

Sb	: Antimony
Se	: Selenium
Sr	: Strontium
Ti	: Titanium
Tl	: Thallium
V	: Vanadium
W	: Tungsten
Zn	: Zinc

Methods:

FA/AA/AAS	: Fire Assay/Atomic Absorption Finish
FA	: Fire Assay/Gravimetric Finish
ICP	: Inductively Coupled Plasma
HYG	: Hydride Generation

Units:

ppb	: Parts per billion
oz/ton	: ounces per ton
ppm	: Parts per million
%	: percent

Quality codes:

<	: Less than

INSPECTORATE

INSPECTORATE AMERICA CORPORATION
840 Greg Street
Sparks, Nevada 89431
Tel:775-359-6311
Fax: 775-359-2944

5-Dec-99

ROSEBUD MINING COMPANY
P.O. BOX 2610
58 MILES WEST OF
WINNEMUCCA, NV 89446

Certificate of Analysis

Attn: Kurt Allen
Project: RS-D367-99

Received: 19-Nov-99 07:18
PO #: Ref. 99-44-21

Job: 993790R

Status: Final

NA : Not Analyzed

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5-Dec-99

ROSEBUD MINING COMPANY
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58 MILES WEST OF
WINNEMUCCA, NV 89446

Certificate of Analysis

Attn: Kurt Allen
Received: 19-Nov-99 07:18
Project: RS-D367-99
PO #: Ref. 99-44-21

Job: 993790R
Status: Final

The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim or deposit has been determined based on the results of assays of multiple samples of geologic materials collected by the prospective investor or by a qualified person selected by him and based on an evaluation of all engineering data which is available concerning any proposed project.

Job approved by:

Signed:
.....
Dave Francisco
Laboratory Manager

INSPECTORATE

INSPECTORATE AMERICA CORPORATION
840 Greg Street
Sparks, Nevada 89431
Tel:775-359-6311
Fax: 775-359-2944

22-Nov-99

ROSEBUD MINING COMPANY
P.O. BOX 2610
58 MILES WEST OF
WINNEMUCCA, NV 89446

Certificate of Analysis

Attn: Kurt Allen
Project: RS-D367-99

Received: 16-Nov-99 08:54
PO #: Ref:99-43-25

Job: 993776R

Status: Final

Drill Core

Sample Id	Au FA/AA/AAS oz/ton	Ag AA oz/ton
RS-D367-99 713-717	0.716	0.820
RS-D367-99 717-719.5	0.048	0.083
RS-D367-99 719.5-722	0.027	0.047
RS-D367-99 722-727	0.012	0.025
RS-D367-99 727-730.5	0.032	0.064
RS-D367-99 730.5-732	0.012	0.073
RS-D367-99 732-737	0.004	0.037
RS-D367-99 737-738.8	0.008	0.035
RS-D367-99 738.8-742	0.008	0.038
RS-D367-99 742-746.2	0.009	0.049
RS-D367-99 446.2-747.9	0.001	0.027
RS-D367-99 747.9-753.3	0.001	0.016
RS-D367-99 753.3-757	0.001	0.011
RS-D367-99 757-761.7	0.001	0.006
RS-D367-99 761.7-766.1	0.000	0.006
RS-D367-99 766.1-768.8	0.000	0.006
RS-D367-99 768.8-770.6	0.008	0.028
RS-D367-99 770.6-774	0.007	0.022
RS-D367-99 774-777	0.001	0.012
RS-D367-99 777-782	0.001	0.010

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58 MILES WEST OF
WINNEMUCCA, NV 89446

Certificate of Analysis

Attn: Kurt Allen
Project: RS-D367-99

Received: 16-Nov-99 08:54
PO #: Ref:99-43-25

Job: 993776R

Status: Final

Drill Core

Sample Id	Au FA/AA/AAS oz/ton	Ag AA oz/ton
RS-D367-99 782-787	0.001	0.008
RS-D367-99 787-792	0.004	0.008
RS-D367-99 792-793.4	0.006	0.014
RS-D367-99 793.4-797	0.011	0.019
RS-D367-99 797-801	0.002	0.022
RS-D367-99 801-802	0.007	0.059
RS-D367-99 802-806	0.002	0.014
RS-D367-99 806-808	0.002	0.029

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22-Nov-99

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WINNEMUCCA, NV 89446

Certificate of Analysis

Attn: Kurt Allen
Received: 16-Nov-99 08:54
Project: RS-D367-99
PO #: Ref:99-43-25

Job: 993776R
Status: Final

Drill Core

Sample Id	Ag ICP ppm	Al ICP %	As ICP ppm	B ICP ppm	Ba ICP ppm	Bi ICP ppm	Ca ICP %	Cd ICP ppm	Co ICP ppm	Cr ICP ppm
RS-D367-99 713-719.5	10.5	0.24	20	21	111	<1	0.07	0.6	<1	77
RS-D367-99 719.5-737	1.1	0.26	34	18	83	<1	0.26	<0.5	<1	77
RS-D367-99 737-738.8	1.1	0.23	50	20	130	<1	0.81	0.5	<1	93
RS-D367-99 738.8-746.2	0.9	0.26	84	27	75	<1	0.15	0.8	<1	48
RS-D367-99 746.2-753.3	0.9	0.25	51	26	64	1	1.95	0.8	<1	26
RS-D367-99 753.3-766.1	0.2	0.45	9	21	201	<1	1.21	<0.5	<1	35
RS-D367-99 766.1-768.8	1.7	0.34	21	11	401	<1	6.16	<0.5	<1	27
RS-D367-99 768.8-770.6	1.9	0.31	102	27	69	2	4.61	0.7	<1	41
RS-D367-99 770.6-782	1.3	0.31	93	16	93	<1	4.41	<0.5	<1	43
RS-D367-99 782-792	1.1	0.40	52	14	192	<1	5.66	<0.5	<1	34
RS-D367-99 792-793.4	1.5	0.47	63	17	151	<1	7.24	<0.5	<1	11
RS-D367-99 793.4-801	1.0	0.49	63	17	24	<1	3.23	<0.5	<1	30
RS-D367-99 801-806	2.7	0.35	158	36	27	1	6.62	1.3	<1	21
RS-D367-99 806-808	2.6	0.43	62	27	55	3	8.76	0.6	<1	24

Sample Id	Cu ICP ppm	Fe ICP %	Hg HYG ppb	K ICP %	La ICP ppm	Mg ICP %	Mn ICP ppm	Mo ICP ppm	Na ICP %	Ni ICP ppm
RS-D367-99 713-719.5	77	1.33	173	0.19	11	0.03	18	8	0.91	8

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22-Nov-99

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WINNEMUCCA, NV 89446

Certificate of Analysis

Attn: Kurt Allen
Received: 16-Nov-99 08:54
Project: RS-D367-99
PO #: Ref:99-43-25

Job: 993776R
Status: Final

Drill Core

Sample Id	Cu ICP ppm	Fe ICP %	Hg HYG ppb	K ICP %	La ICP ppm	Mg ICP %	Mn ICP ppm	Mo ICP ppm	Na ICP %	Ni ICP ppm
RS-D367-99 719.5-737	35	1.05	128	0.26	13	0.02	42	5	0.63	5
RS-D367-99 737-738.8	50	1.35	148	0.34	13	0.02	168	15	0.46	13
RS-D367-99 738.8-746.2	86	1.94	35	0.45	26	0.02	14	3	0.19	4
RS-D367-99 746.2-753.3	15	1.91	90	0.38	14	0.03	449	2	1.03	2
RS-D367-99 753.3-766.1	4	1.52	31	0.35	18	0.06	226	5	0.89	2
RS-D367-99 766.1-768.8	15	0.70	48	0.46	13	0.06	1703	<1	0.41	2
RS-D367-99 768.8-770.6	96	2.10	31	0.38	7	0.04	1140	<1	0.70	1
RS-D367-99 770.6-782	76	1.13	73	0.36	11	0.03	866	6	0.77	2
RS-D367-99 782-792	22	0.96	59	0.44	15	0.05	1044	<1	0.90	1
RS-D367-99 792-793.4	63	1.27	52	0.58	12	0.08	1075	<1	0.68	<1
RS-D367-99 793.4-801	55	1.23	38	0.46	24	0.06	649	<1	0.66	1
RS-D367-99 801-806	24	2.99	79	0.41	6	0.08	1984	<1	0.60	1
RS-D367-99 806-808	20	2.21	59	0.38	5	0.07	2350	3	0.80	2

Sample Id	P ICP ppm	Pb ICP ppm	Sb ICP ppm	Se ICP ppm	Sr ICP ppm	Ti ICP %	Tl ICP ppm	V ICP ppm	W ICP ppm	Zn ICP ppm
RS-D367-99 713-719.5	22	37	4	3.1	22	<0.01	<0.5	<2	<1	93
RS-D367-99 719.5-737	22	22	3	4.4	44	<0.01	<0.5	<2	<1	70

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22-Nov-99

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Certificate of Analysis

Attn: Kurt Allen
Received: 16-Nov-99 08:54
Project: RS-D367-99
PO #: Ref:99-43-25

Job: 993776R
Status: Final

Drill Core

Sample Id	P ICP ppm	Pb ICP ppm	Sb ICP ppm	Se ICP ppm	Sr ICP ppm	Ti ICP %	Tl ICP ppm	V ICP ppm	W ICP ppm	Zn ICP ppm
RS-D367-99 737-738.8	25	34	<2	5.1	117	<0.01	<0.5	<2	<1	53
RS-D367-99 738.8-746.2	43	55	3	5.6	44	<0.01	<0.5	<2	<1	32
RS-D367-99 746.2-753.3	56	30	4	1.5	226	<0.01	<0.5	<2	<1	109
RS-D367-99 753.3-766.1	43	32	<2	<0.5	145	<0.01	<0.5	<2	<1	92
RS-D367-99 766.1-768.8	21	21	2	<0.5	717	<0.01	<0.5	<2	<1	48
RS-D367-99 768.8-770.6	27	49	5	4.1	449	<0.01	<0.5	<2	<1	74
RS-D367-99 770.6-782	27	43	3	1.8	383	<0.01	<0.5	<2	<1	79
RS-D367-99 782-792	25	30	<2	<0.5	468	<0.01	<0.5	<2	<1	90
RS-D367-99 792-793.4	42	47	<2	<0.5	784	<0.01	<0.5	<2	<1	74
RS-D367-99 793.4-801	40	39	<2	0.7	310	<0.01	<0.5	<2	<1	71
RS-D367-99 801-806	4	32	5	<0.5	581	<0.01	<0.5	<2	<1	67
RS-D367-99 806-808	14	29	3	<0.5	658	<0.01	<0.5	<2	<1	75

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22-Nov-99

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WINNEMUCCA, NV 89446

Certificate of Analysis

Attn: Kurt Allen
Received: 16-Nov-99 08:54
Project: RS-D367-99
PO #: Ref:99-43-25

Job: 993776R
Status: Final

Abbreviations:

Parameters:

Au	: Gold
Ag	: Silver
Al	: Aluminum
As	: Arsenic
B	: Boron
Ba	: Barium
Bi	: Bismuth
Ca	: Calcium
Cd	: Cadmium
Co	: Cobalt
Cr	: Chromium
Cu	: Copper
Fe	: Iron
Hg	: Mercury
K	: Potassium
La	: Lanthanum
Mg	: Magnesium
Mn	: Manganese
Mo	: Molybdenum
Na	: Sodium
Ni	: Nickel
P	: Phosporus
Pb	: Lead

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22-Nov-99

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P.O. BOX 2610
58 MILES WEST OF
WINNEMUCCA, NV 89446

Certificate of Analysis

Attn: Kurt Allen
Project: RS-D367-99

Received: 16-Nov-99 08:54
PO #: Ref:99-43-25

Job: 993776R

Status: Final

Sb	: Antimony
Se	: Selenium
Sr	: Strontium
Ti	: Titanium
Tl	: Thallium
V	: Vanadium
W	: Tungsten
Zn	: Zinc

Methods:

FA/AA/AAS	: Fire Assay/Atomic Absorption Finish
AA	: Atomic Absorption
ICP	: Inductively Coupled Plasma
HYG	: Hydride Generation

Units:

oz/ton	: ounces per ton
ppm	: Parts per million
%	: percent
ppb	: Parts per billion

Quality codes:

<	: Less than

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Sparks, Nevada 89431
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22-Nov-99

ROSEBUD MINING COMPANY
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58 MILES WEST OF
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Certificate of Analysis

Attn: Kurt Allen
Project: RS-D367-99

Received: 16-Nov-99 08:54
PO #: Ref:99-43-25

Job: 993776R

Status: Final

The results of this assay were based solely upon the content of the sample submitted. Any decision to invest should be made only after the potential investment value of the claim or deposit has been determined based on the results of assays of multiple samples of geologic materials collected by the prospective investor or by a qualified person selected by him and based on an evaluation of all engineering data which is available concerning any proposed project.

Job approved by:

Signed: .....

Dave Francisco
Laboratory Manager

18-Nov-99

ROSEBUD MINING COMPANY
P.O. BOX 2610
58 MILES WEST OF
WINNEMUCCA, NV 89446

Page: 1
Copy: 1 of 1
Set : 1

Attn: Kurt Allen
Project: RS-D367-99

Received: 16-Nov-99 08:54
PO #: Ref:99-43-25

Job: 993776R

Status: Preliminary

Drill Core

Sample Id	Au FA/AA/AAS oz/ton	Ag AA oz/ton	
RS-D367-99 713-717	0.716	0.820	
RS-D367-99 717-719.5 2.5	0.048	0.083	
RS-D367-99 719.5-722 2.5	0.027	0.047	0.025 Au
RS-D367-99 722-727 5	0.012	0.025	
RS-D367-99 727-730.5 3.5	0.032	0.064	0.05 Ag
RS-D367-99 730.5-732 1.5	0.012	0.073	
RS-D367-99 732-737	0.004	0.037	
RS-D367-99 737-738.8	0.008	0.035	
RS-D367-99 738.8-742	0.008	0.038	
RS-D367-99 742-746.2	0.009	0.049	
RS-D367-99 446.2-747.9	0.001	0.027	
RS-D367-99 747.9-753.3	0.001	0.016	
RS-D367-99 753.3-757	0.001	0.011	
RS-D367-99 757-761.7	0.001	0.006	
RS-D367-99 761.7-766.1	0.000	0.006	
RS-D367-99 766.1-768.8	0.000	0.006	
RS-D367-99 768.8-770.6	0.008	0.028	
RS-D367-99 770.6-774	0.007	0.022	
RS-D367-99 774-777	0.001	0.012	
RS-D367-99 777-782	0.001	0.010	
RS-D367-99 782-787	0.001	0.008	
RS-D367-99 787-792	0.004	0.008	
RS-D367-99 792-793.4	0.006	0.014	
RS-D367-99 793.4-797	0.011	0.019	
RS-D367-99 797-801	0.002	0.022	
RS-D367-99 801-802	0.007	0.059	
RS-D367-99 802-806	0.002	0.014	
RS-D367-99 806-808	0.002	0.029	

INSPECTORATE

ROCKY MOUNTAIN GEOCHEMICAL

A MEMBER OF THE INSPECTORATE GROUP OF COMPANIES
840 GREG STREET • SPARKS, NEVADA 89431 • PHONE (775) 359-6311 • FAX (775) 359-2944

Kurt Allen
Hecla (Rosebud Mine)
P.O. Box 2610
Winnecmucca, NV 89446 US

Invoice No: 33100200
Invoice Date: 12/10/99
JobNo: 99-44-21
Account No: 00007292

Client PO: Ref:993790

INVOICE

Terms: Net 30 days

Item Description	Qty	Unit Price	Amount
Sample Preparation Core 11-15 Lbs	116	$2.98	$345.68
Gold FA/AA/AAS and Silver AA	117	$6.50	$760.50
Gold and Silver Fire Assay	1	$7.00	$7.00
30 Element ICP	5	$7.65	$38.25

PLEASE REMIT TO:

Inspectorate America Corp.
P.O. Box 201901
Houston, TX 77216-1901

Sub Total:	**$1,151.43**
Discount:	**$0.00**
Discounted Total:	**$1,151.43**
Add'l Discount:	**$0.00**
Final Total:	**$1,151.43**

PAID
D-367-99

BARRINGER LABS 8281263 12/07 '99 14:23 NO.251 02/09

INSPECTORATE

INSPECTORATE AMERICA CORPORATION
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Fax: 775-359-2944

ROSEBUD MINING COMPANY
P.O. BOX 2610
58 MILES WEST OF
WINNEMUCCA, NV 89446

5-Dec-99

Certificate of Analysis

Attn: Kurt Allen
Project: RS-D367-99

Received: 19-Nov-99 07:18
PO #: Ref. 99-44-21

Job: 993790R

Status: Final

Drill Core

Sample Id	Au FA/AA/AAS ppb	Au FA/AA/AAS oz/ton	Au FA oz/ton	Ag FA/AA/AAS ppm	Ag FA/AA/AAS oz/ton	Ag FA oz/ton
RS-D367-99 0-10.5	12	0.000	NA	1.0	0.028	NA
RS-D367-99 10.5-13.1	283	0.008	NA	1.6	0.048	NA
RS-D367-99 13.1-20	143	0.004	NA	1.3	0.037	NA
RS-D367-99 20-40	112	0.003	NA	0.7	0.021	NA
RS-D367-99 40-52	36	0.001	NA	1.4	0.040	NA
RS-D367-99 52-63	113	0.003	NA	1.3	0.039	NA
RS-D367-99 63-69	143	0.004	NA	1.8	0.054	NA
RS-D367-99 69-79.6	36	0.001	NA	0.9	0.026	NA
RS-D367-99 79.6-85	2	0.000	NA	0.5	0.016	NA
RS-D367-99 85-97	11	0.000	NA	0.4	0.012	NA
RS-D367-99 97-111	2	0.000	NA	0.2	0.006	NA
RS-D367-99 111-120	4	0.000	NA	0.4	0.013	NA
RS-D367-99 120-130	4	0.000	NA	0.3	0.010	NA
RS-D367-99 130-134.6	9	0.000	NA	0.7	0.021	NA
RS-D367-99 134.6-139.7	5	0.000	NA	0.7	0.019	NA
RS-D367-99 139.7-147	48	0.001	NA	0.9	0.027	NA
RS-D367-99 147-156.7	22	0.001	NA	0.5	0.015	NA
RS-D367-99 156.7-163.5	32	0.001	NA	0.9	0.026	NA
RS-D367-99 163.5-171.5	27	0.001	NA	0.7	0.019	NA
RS-D367-99 171.5-180	14	0.000	NA	0.6	0.018	NA

12/07 '99 14:23 NO.251 03/09
8281263
BARRINGER LABS

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Tel:775-359-6311
Fax: 775-359-2944

5-Dec-99

ROSEBUD MINING COMPANY
P.O. BOX 2610
58 MILES WEST OF
WINNEMUCCA, NV 89446

Certificate of Analysis

Attn: Kurt Allen
Received: 19-Nov-99 07:18
Project: RS-D367-99
PO #: Ref. 99-44-21

Job: 993790R
Status: Final

Drill Core

Sample Id	Au FA/AA/AAS ppb	Au FA/AA/AAS oz/ton	Au FA oz/ton	Ag FA/AA/AAS ppm	Ag FA/AA/AAS oz/ton	Ag FA oz/ton
RS-D367-99 180-187	32	0.001	NA	0.2	0.007	NA
RS-D367-99 187-197	20	0.001	NA	0.4	0.013	NA
RS-D367-99 197-207	52	0.002	NA	0.9	0.025	NA
RS-D367-99 207-215	23	0.001	NA	0.6	0.018	NA
RS-D367-99 215-225	27	0.001	NA	1.0	0.028	NA
RS-D367-99 225-230.8	57	0.002	NA	0.7	0.020	NA
RS-D367-99 230.8-234	64	0.002	NA	0.8	0.023	NA
RS-D367-99 234-247	21	0.001	NA	0.5	0.014	NA
RS-D367-99 247-267	23	0.001	NA	0.6	0.017	NA
RS-D367-99 267-277	19	0.001	NA	0.5	0.014	NA
RS-D367-99 277-287	25	0.001	NA	0.7	0.020	NA
RS-D367-99 287-297	20	0.001	NA	1.2	0.035	NA
RS-D367-99 297-312	32	0.001	NA	0.4	0.012	NA
RS-D367-99 312-322	24	0.001	NA	0.6	0.017	NA
RS-D367-99 322-332	20	0.001	NA	0.7	0.021	NA
RS-D367-99 332-342	4	0.000	NA	0.5	0.015	NA
RS-D367-99 342-352	13	0.000	NA	0.5	0.016	NA
RS-D367-99 352-362	24	0.001	NA	0.3	0.010	NA
RS-D367-99 362-372	12	0.000	NA	0.3	0.010	NA
RS-D367-99 372-382	35	0.001	NA	0.4	0.011	NA

BARRINGER LABS 8281263 12/07 '99 14:23 NO.251 04/09

ROSEBUD MINING COMPANY
P.O. BOX 2610
58 MILES WEST OF
WINNEMUCCA, NV 89446

INSPECTORATE
INSPECTORATE AMERICA CORPORATION
840 Greg Street
Sparks, Nevada 89431
Tel:775-359-6311
Fax: 775-359-2944

5-Dec-99

Certificate of Analysis

Attn: Kurt Allen
Project: RS-D367-99

Received: 19-Nov-99 07:18
PO #: Ref. 99-44-21

Job: 993790R

Status: Final

Drill Core

Sample Id	Au FA/AA/AAS ppb	Au FA/AA/AAS oz/ton	Au FA oz/ton	Ag FA/AA/AAS ppm	Ag FA/AA/AAS oz/ton	Ag FA oz/ton
RS-D367-99 382-387	24	0.001	NA	0.5	0.016	NA
RS-D367-99 387-397	16	0.000	NA	0.5	0.015	NA
RS-D367-99 397-407	10	0.000	NA	0.5	0.016	NA
RS-D367-99 407-417	9	0.000	NA	2.4	0.070	NA
RS-D367-99 417-427	24	0.001	NA	1.1	0.033	NA
RS-D367-99 427-437	31	0.001	NA	0.7	0.021	NA
RS-D367-99 437-447	24	0.001	NA	0.5	0.014	NA
RS-D367-99 447-457	11	0.000	NA	0.5	0.015	NA
RS-D367-99 457-467	4	0.000	NA	0.3	0.008	NA
RS-D367-99 467-477	7	0.000	NA	0.2	0.005	NA
RS-D367-99 477-487	13	0.000	NA	0.5	0.016	NA
RS-D367-99 487-497	18	0.001	NA	0.5	0.014	NA
RS-D367-99 497-507	15	0.000	NA	0.7	0.019	NA
RS-D367-99 507-517	400	0.012	NA	1.0	0.028	NA
RS-D367-99 517-524.2	26	0.001	NA	0.9	0.025	NA
RS-D367-99 524.2-528	163	0.005	NA	0.9	0.027	NA
RS-D367-99 528-534	802	0.023	NA	2.5	0.073	NA
RS-D367-99 534-539.7	802	0.023	NA	3.5	0.102	NA
RS-D367-99 539.7-545.1	764	0.022	NA	2.4	0.070	NA
RS-D367-99 545.1-548.5	859	0.025	NA	2.2	0.065	NA

BARRINGER LABS 8281263 12/07 '99 14:24 NO.251 05/09

INSPECTORATE

INSPECTORATE AMERICA CORPORATION
840 Greg Street
Sparks, Nevada 89431
Tel:775-359-6311
Fax: 775-359-2944

ROSEBUD MINING COMPANY
P.O. BOX 2610
58 MILES WEST OF
WINNEMUCCA, NV 89446

5-Dec-99

Page: 4
Copy: 1 of 2
Set : 1

Certificate of Analysis

Attn: Kurt Allen
Project: RS-D367-99

Received: 19-Nov-99 07:18
PO #: Ref. 99-44-21

Job: 993790R

Status: Final

Drill Core

Sample Id	Au FA/AA/AAS ppb	Au FA/AA/AAS oz/ton	Au FA oz/ton	Ag FA/AA/AAS ppm	Ag FA/AA/AAS oz/ton	Ag FA oz/ton
RS-D367-99 548.5-552	264	0.008	NA	1.8	0.052	NA
RS-D367-99 552-557.6	58	0.002	NA	0.6	0.018	NA
RS-D367-99 557.6-562	22	0.001	NA	0.7	0.019	NA
RS-D367-99 562-572	11	0.000	NA	0.4	0.013	NA
RS-D367-99 572-582	29	0.001	NA	0.3	0.009	NA
RS-D367-99 582-592	17	0.000	NA	0.6	0.017	NA
RS-D367-99 592-602	18	0.001	NA	0.3	0.009	NA
RS-D367-99 602-606	66	0.002	NA	1.0	0.028	NA
RS-D367-99 606-609	861	0.025	NA	1.9	0.056	NA
RS-D367-99 609-612	1130	0.033	NA	2.1	0.060	NA
RS-D367-99 612-615.5	58	0.002	NA	1.5	0.044	NA
RS-D367-99 615.5-620.2	517	0.015	NA	1.2	0.035	NA
RS-D367-99 620.2-624.7	63	0.002	NA	1.0	0.029	NA
RS-D367-99 624.7-626.1	76	0.002	NA	1.1	0.033	NA
RS-D367-99 626.1-629.8	1839	0.054	0.034	4.5	0.132	0.205
RS-D367-99 629.8-632	17	0.000	NA	0.5	0.014	NA
RS-D367-99 632-637	18	0.001	NA	1.0	0.029	NA
RS-D367-99 637-642	11	0.000	NA	0.2	0.007	NA
RS-D367-99 642-652	15	0.000	NA	0.1	0.004	NA
RS-D367-99 652-662	16	0.000	NA	0.2	0.007	NA

12/07 '99 14:24 NO.251 06/09
8281263
BARRINGER LABS

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ROSEBUD MINING COMPANY
P.O. BOX 2610
58 MILES WEST OF
WINNEMUCCA, NV 89446

Certificate of Analysis

Attn: Kurt Allen
Project: RS-D367-99

Received: 19-Nov-99 07:18
PO #: Ref. 99-44-21

Job: 993790R

Status: Final

Drill Core

Sample Id	Au FA/AA/AAS ppb	Au FA/AA/AAS oz/ton	Au FA oz/ton	Ag FA/AA/AAS ppm	Ag FA/AA/AAS oz/ton	Ag FA oz/ton
RS-D367-99 662-672	414	0.012	NA	1.4	0.042	NA
RS-D367-99 672-682	22	0.001	NA	0.6	0.018	NA
RS-D367-99 682-692	80	0.002	NA	0.5	0.016	NA
RS-D367-99 692-702	301	0.009	NA	0.8	0.024	NA
RS-D367-99 702-713	26	0.001	NA	0.4	0.013	NA
RS-D367-99 808-812	19	0.001	NA	0.7	0.019	NA
RS-D367-99 812-817	20	0.001	NA	0.4	0.012	NA
RS-D367-99 817-822	24	0.001	NA	0.8	0.024	NA
RS-D367-99 822-827	549	0.016	NA	1.1	0.033	NA
RS-D367-99 827-832	14	0.000	NA	1.0	0.028	NA
RS-D367-99 832-835.1	22	0.001	NA	0.4	0.013	NA
RS-D367-99 835.1-842	210	0.006	NA	0.5	0.014	NA
RS-D367-99 842-847	13	0.000	NA	0.8	0.023	NA
RS-D367-99 847-850	63	0.002	NA	0.6	0.017	NA
RS-D367-99 850-853.7	25	0.001	NA	0.7	0.020	NA
RS-D367-99 853.7-857	59	0.002	NA	0.5	0.016	NA
RS-D367-99 857-862	67	0.002	NA	0.7	0.019	NA
RS-D367-99 862-867	17	0.000	NA	0.6	0.017	NA
RS-D367-99 867-872	16	0.000	NA	0.7	0.020	NA
RS-D367-99 872-877	<2	0.000	NA	0.7	0.021	NA

BARRINGER LABS 8281263 12/07 '99 14:25 NO.251 07/09

INSPECTORATE

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ROSEBUD MINING COMPANY
P.O. BOX 2610
58 MILES WEST OF
WINNEMUCCA, NV 89446

5-Dec-99

Page: 6
Copy: 1 of 2
Set : 1

Certificate of Analysis

Attn: Kurt Allen
Project: RS-D367-99

Received: 19-Nov-99 07:18
PO #: Ref. 99-44-21

Job: 993790R

Status: Final

Drill Core

Sample Id	Au FA/AA/AAS ppb	Au FA/AA/AAS oz/ton	Au FA oz/ton	Ag FA/AA/AAS ppm	Ag FA/AA/AAS oz/ton	Ag FA oz/ton
RS-D367-99 877-882	26	0.001	NA	0.2	0.007	NA
RS-D367-99 882-886	28	0.001	NA	1.0	0.030	NA
RS-D367-99 886-890	58	0.002	NA	0.5	0.015	NA
RS-D367-99 890-895	28	0.001	NA	1.1	0.032	NA
RS-D367-99 895-897	14	0.000	NA	0.4	0.011	NA
RS-D367-99 897-902	16	0.000	NA	1.0	0.029	NA
RS-D367-99 902-907	13	0.000	NA	0.4	0.013	NA
RS-D367-99 907-912	35	0.001	NA	0.7	0.020	NA
RS-D367-99 912-917	39	0.001	NA	0.7	0.020	NA
RS-D367-99 917-919.5	108	0.003	NA	0.6	0.018	NA
RS-D367-99 919.5-920.9	69	0.002	NA	1.3	0.037	NA
RS-D367-99 920.9-927	28	0.001	NA	0.6	0.017	NA
RS-D367-99 927-930.4	30	0.001	NA	1.1	0.032	NA
RS-D367-99 930.4-933.5	33	0.001	NA	0.7	0.019	NA
RS-D367-99 933.5-937	38	0.001	NA	0.7	0.021	NA
RS-D367-99 937-942	60	0.002	NA	1.0	0.029	NA

Pulp

STD 75205	990	0.029	NA	2.2	0.064	NA

BARRINGER LABS 8281263 12/07 '99 14:25 NO.251 08/09

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ROSEBUD MINING COMPANY
P.O. BOX 2610
58 MILES WEST OF
WINNEMUCCA, NV 89446

5-Dec-99

Certificate of Analysis

Attn: Kurt Allen
Project: RS-D367-99

Received: 19-Nov-99 07:18
PO #: Ref. 99-44-21

Job: 993790R

Status: Final

Drill Core

Sample Id	Ag ICP ppm	Al ICP %	As ICP ppm	B ICP ppm	Ba ICP ppm	Bi ICP ppm	Ca ICP %	Cd ICP ppm	Co ICP ppm	Cr ICP ppm	Cu ICP ppm
RS-D367-99 517-552	0.4	0.18	118	23	63	2	0.10	<0.5	<1	28	21
RS-D367-99 602-632	0.2	0.22	95	24	131	3	0.11	0.5	<1	30	23
RS-D367-99 632-850	<0.1	0.36	6	19	133	1	0.60	<0.5	<1	10	3
RS-D367-99 850-897	<0.1	0.32	23	18	210	1	0.62	<0.5	<1	16	3
RS-D367-99 897-942	<0.1	0.31	138	29	119	<1	0.47	0.8	<1	13	5

Sample Id	Fe ICP %	Hg HYG ppb	K ICP %	La ICP ppm	Mg ICP %	Mn ICP ppm	Mo ICP ppm	Na ICP %	Ni ICP ppm	P ICP ppm	Pb ICP ppm
RS-D367-99 517-552	1.29	77	0.23	23	0.01	58	6	0.49	11	38	21
RS-D367-99 602-632	1.65	77	0.23	21	0.02	83	10	0.39	10	29	26
RS-D367-99 632-850	1.37	49	0.34	29	0.04	354	3	0.61	2	32	21
RS-D367-99 850-897	1.24	52	0.45	39	0.03	157	3	0.62	2	54	31
RS-D367-99 897-942	2.09	52	0.41	33	0.05	127	3	0.91	2	26	28

Sample Id	Sb ICP ppm	Se ICP ppm	Sr ICP ppm	Ti ICP %	Tl ICP ppm	V ICP ppm	W ICP ppm	Zn ICP ppm
RS-D367-99 517-552	2	3	64	<0.01	<0.5	<2	<1	59

12/07 '99 14:25 NO.251 09/09
8281263
BARRINGER LABS

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ROSEBUD MINING COMPANY
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Certificate of Analysis

Attn: Kurt Allen
Project: RS-D367-99

Received: 19-Nov-99 07:18
PO #: Ref. 99-44-21

Job: 993790R

Status: Final

Drill Core

Sample Id	Sb ICP ppm	Se ICP ppm	Sr ICP ppm	Ti ICP %	Tl ICP ppm	V ICP ppm	W ICP ppm	Zn ICP ppm
RS-D367-99 602-632	2	1	65	<0.01	<0.5	<2	<1	49
RS-D367-99 632-850	<2	<1	107	<0.01	<0.5	<2	<1	68
RS-D367-99 850-897	<2	<1	85	<0.01	<0.5	<2	<1	67
RS-D367-99 897-942	<2	3	82	<0.01	<0.5	<2	<1	90

STLDHS.CR5 11/16/99 13:15:50

Point	Northing	Easting	Elevation	Description
1	2,204,077.9767	481,650.8979	4,474.33	T25-1BS
100	2,204,083.1875	481,613.3999	4,455.90	367
101	2,204,084.1813	481,611.0849	4,455.86	365
102	2,204,083.9791	481,608.9906	4,457.39	355
103	2,204,083.0992	481,612.2299	4,454.96	366
104	2,204,081.9211	481,612.1134	4,455.57	364

RS-D367-99

Depth From	To	Interval	Au	Ag	ICP	Composite Interval	Sample Number
0	10.5	10.5	x	x			1
10.5	13.1	2.6	x	x			2
13.1	20	6.9	x	x			3
20	40	20	x	x			4
40	52	12	x	x			5
52	63	11	x	x			6
63	69	6	x	x			7
69	79.6	10.6	x	x			8
79.6	85	5.4	x	x			9
85	97	12	x	x			10
97	111	14	x	x			11
111	120	9	x	x			12
120	130	10	x	x			13
130	134.6	4.6	x	x			14
134.6	139.7	5.1	x	x			15
139.7	147	7.3	x	x			16
147	156.7	9.7	x	x			17
156.7	163.5	6.8	x	x			18
163.5	171.5	8	x	x			19
171.5	180	8.5	x	x			20
180	187	7	x	x			21
187	197	10	x	x			22
197	207	10	x	x			23
207	215	8	x	x			24
215	225	10	x	x			25
225	230.8	5.8	x	x			26
230.8	234	3.2	x	x			27
234	247	13	x	x			28
247	267	20	x	x			29
267	277	10	x	x			30
277	287	10	x	x			31
287	297	10	x	x			32
297	312	15	x	x			33
312	322	10	x	x			34
322	332	10	x	x			35
332	342	10	x	x			36
342	352	10	x	x			37
352	362	10	x	x			38
362	372	10	x	x			39
372	382	10	x	x			40
382	387	5	x	x			41

387	397	10	x	x			42
397	407	10	x	x			43
407	417	10	x	x			44
417	427	10	x	x			45
427	437	10	x	x			46
437	447	10	x	x			47
447	457	10	x	x			48
457	467	10	x	x			49
467	477	10	x	x			50
477	487	10	x	x			51
487	497	10	x	x			52
497	507	10	x	x			53
507	517	10	x	x			54
517	524.2	7.2	x	x			55
524.2	528	3.8	x	x			56
528	534	6	x	x			57
534	539.7	5.7	x	x			58
539.7	545.1	5.4	x	x			59
545.1	548.5	3.4	x	x			60
548.5	552	3.5	x	x	x	35	61
552	557.6	5.6	x	x			62
557.6	562	4.4	x	x			63
562	572	10	x	x			64
572	582	10	x	x			65
582	592	10	x	x			66
592	602	10	x	x			67
602	606	4	x	x			68
606	609	3	x	x			69
609	612	3	x	x			70
612	615.5	3.5	x	x			71
615.5	620.2	4.7	x	x			72
620.2	624.7	4.5	x	x			73
624.7	626.1	1.4	x	x			74
626.1	629.8	3.7	x	x			75
629.8	632	2.2	x	x	x	30	76
632	637	5	x	x			77
637	642	5	x	x			78
642	652	10	x	x			79
652	662	10	x	x			80
662	672	10	x	x			81
672	682	10	x	x			82
682	692	10	x	x			83
692	702	10	x	x			84
702	713	11	x	x			85

713	717	4	x	x			86
717	719.5	2.5	x	x	x	6.5	87
719.5	722	2.5	x	x			88
722	727	5	x	x			89
727	730.5	3.5	x	x			90
730.5	732	1.5	x	x			91
732	737	5	x	x	x	17.5	92
737	738.8	1.8	x	x	x	1.8	93
738.8	742	3.2	x	x			94
742	746.2	4.2	x	x	x	7.4	95
746.2	747.9	1.7	x	x			96
747.9	753.3	5.4	x	x	x	7.1	97
753.3	757	3.7	x	x			98
757	761.7	4.7	x	x			99
761.7	766.1	4.4	x	x	x	12.8	100
766.1	768.8	2.7	x	x	x	2.7	101
768.8	770.6	1.8	x	x	x	1.8	102
770.6	774	3.4	x	x			103
774	777	3	x	x			104
777	782	5	x	x	x	11.4	105
782	787	5	x	x			106
787	792	5	x	x	x	10	107
792	793.4	1.4	x	x	x		108
793.4	797	3.6	x	x			109
797	801	4	x	x	x	7.6	110
801	802	1	x	x	x		111
802	806	4	x	x	x	5	112
806	808	2	x	x		2	113
808	812	4	x	x			114
808	812	4	x	x			115
812	817	5	x	x			116
817	822	5	x	x			117
822	827	5	x	x			118
827	832	5	x	x			119
832	835.1	3.1	x	x			120
835.1	842	6.9	x	x			121
842	847	5	x	x			122
847	850	3	x	x	x	42	123
850	853.7	3.7	x	x			124
853.7	857	3.3	x	x			125
857	862	5	x	x			126
862	867	5	x	x			127
867	872	5	x	x			128
872	877	5	x	x			129

877	882	5	x	x			130
882	886	4	x	x			131
886	890	4	x	x			132
890	895	5	x	x			133
895	897	2	x	x	x	47	134
897	902	5	x	x			135
902	907	5	x	x			136
907	912	5	x	x			137
912	917	5	x	x			138
917	919.5	2.5	x	x			139
919.5	920.9	1.4	x	x			140
920.9	927	6.1	x	x			141
927	930.4	3.4	x	x			142
930.4	933.5	3.1	x	x			143
933.5	937	3.5	x	x			144
937	942	5	x	x	x	45	145

DRILL HOLE FILE COMPLETION CHECK LIST

DRILL HOLE 367

	COPIES ROSEBUD	COPIES NEWMONT
LOG	✓	
ALT. CODE LOG	✓	
RQD	✓	
DRILL HOLE SUMMARY		
DOWN HOLE SURVEY SHEET		
ASSAY SUBMITTALS	✓	
ASSAY ICP COMPOSITE SHEET	✓	
COLLAR LOCATION	✓	
PLOTTED		

WELL RS-A-367'

DEPTH 932'

PICTURE NO.

INCLINATION -38.5

OBS. DIR.

COR. DIR. N20.3

TOOL FACE

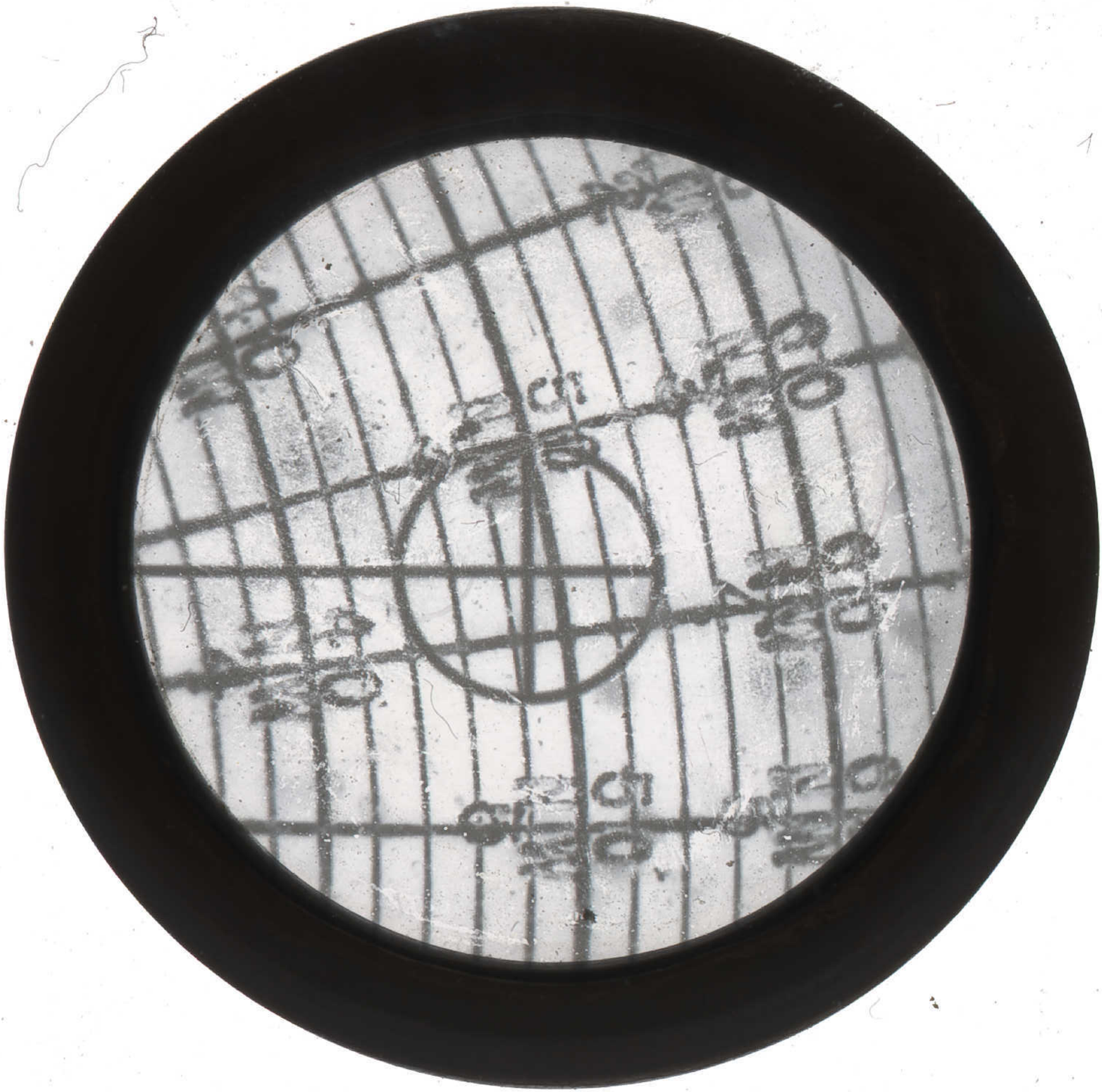
RUN BY G. GADDIE

DATE 11-12-99

CHECKED BY

sperry-sun

DRILLING SERVICES



WELL RS-D367-99

DEPTH 50

PICTURE NO. 01 TD

INCLINATION -38.5 39.5

OBS. DIR. N35W

COR. DIR. N19.3

TOOL FACE

RUN BY JH

DATE 11-5-99

CHECKED BY

sperry-sun

DRILLING SERVICES

60
60
70
70
50
50
40
40

WELL RS-A367

DEPTH 102'

PICTURE NO. T5

INCLINATION -38.5 39.5

OBS. DIR. N34.5W

COR. DIR. N18.8W

TOOL FACE

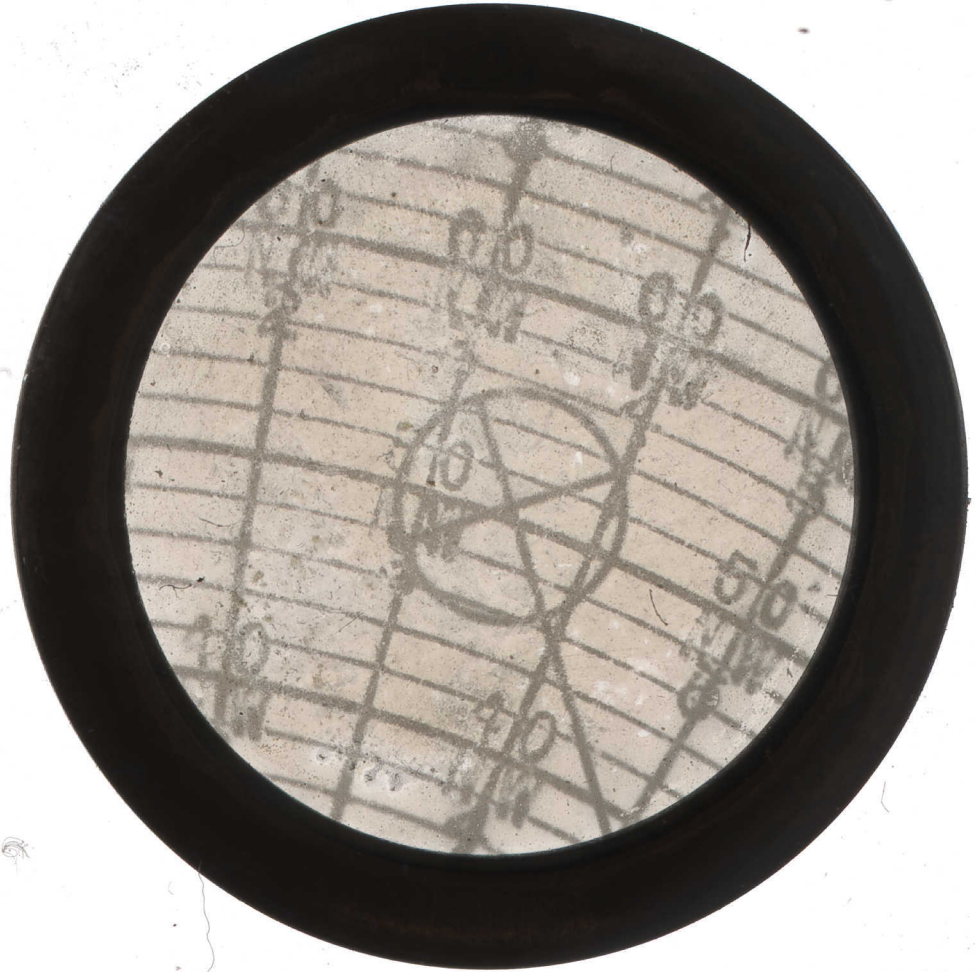
RUN BY G. GADDIE

DATE 11-7-99

CHECKED BY

sperry-sun

DRILLING SERVICES



WELL RS-D307

DEPTH 302'

PICTURE NO.

INCLINATION (40)

OBS. DIR. N35W

COR. DIR. 21.34

TOOL FACE

RUN BY G. GADDIE

DATE 11-7-99

CHECKED BY

sperry-sun

DRILLING SERVICES

WELL RS-D367-99

DEPTH 507

PICTURE NO.

INCLINATION 38.5 (40)

OBS. DIR. N36W

COR. DIR. N 20.3 W

TOOL FACE

RUN BY

DATE

CHECKED BY

sperry-sun

DRILLING SERVICES

60
NM
60
NM
60
NM
50
NM
50
NM
40
NM

WELL RS-D367-99

DEPTH 702

PICTURE NO.

INCLINATION -38.5 (40.1)

OBS. DIR. N37.5

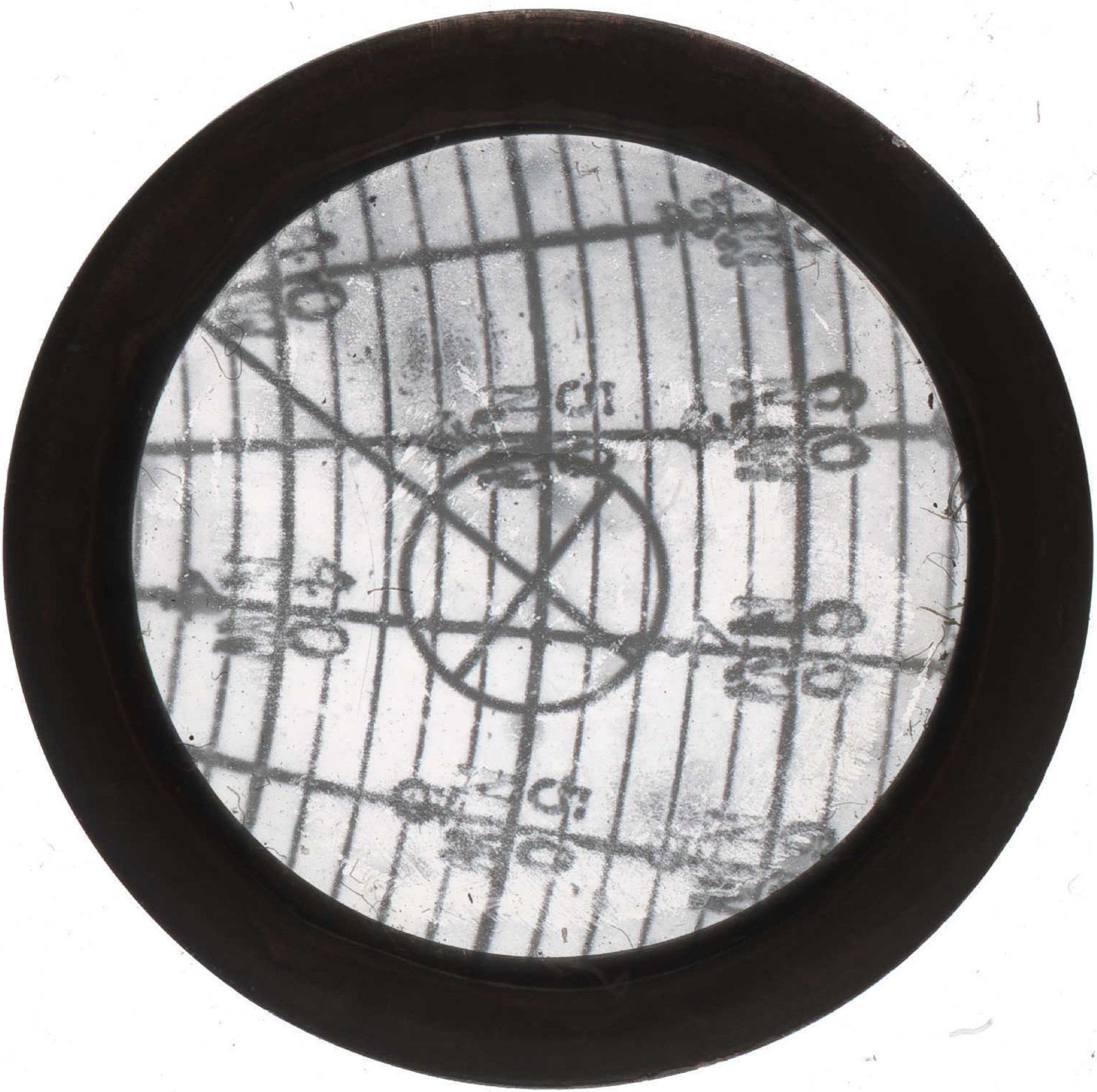
COR. DIR. N21.8

TOOL FACE

RUN BY

DATE

CHECKED BY

sperry-sun

DRILLING SERVICES