

Approx.

## DRILL HOLE LOG - FERROUS

DATE	DRILLED			CORE		MATERIAL	REMARKS
	FROM	TO	FEET	FT.	10ths		
						0-286 Hartville formation:	Banding to axis of core. Set 15 ft NX casing.
3-15	0	11	11	0	0	0-83 Limestone, light gray.	
	11	15	4	3	0		
	15	23	8	8	0		
	23	33	10	10	0		
	33	43	10	10	0		
	43	53	10	9	0		
	53	63	10	10	0		
	63	73	10	10	0		
3-16	73	83	10	10	0	82-118 Red sandstone, medium grained, Fe <sub>2</sub> O <sub>3</sub> stained.	1" green shaly sandstone at 82.
	83	93	10	10	0		
	93	103	10	10	0		
	103	113	10	10	0		
	113	123	10	10	0	113-133 Sandstone, medium grained, white.	
	123	133	10	10	0		
	133	143	10	10	0	133-193 Sandstone, quartzitic, white, faint purple mottling. Purple spots 143 to 263.	
	143	153	10	10	0		
	153	163	10	10	0		
	163	173	10	10	0		
	173	183	10	10	0		
3-19	183	193	10	10	0	193-286 Quartzite, light gray, purple spots to 263.	Purple spots continue to 263. Occasional banding at large angle to core.
	193	203	10	10	0		
	203	213	10	10	0		
	213	223	10	10	0		
	223	233	10	10	0		
3-22	233	243	10	10	0		
	243	253	10	10	0		
	253	263	10	10	0		Banding 75° to core.
	263	273	10	10	0		
	273	283	10	10	0	286-323 Guernsey formation:	
3-23	283	293	10	10	0	286-321 Limestone, hard siliceous, silty, light gray mottled streaked and occasionally banded with purple.	
	293	303	10	10	0		
	303	313	10	10	0		
	313	323	10	10	0	321-323 Sandstone, coarse grained, contains reworked schist fragments.	
3-25	323	333	10	10	0	323-500 Precambrian schist, quartzitic sericitic, chloritic, limonitic, badly distorted to crenulated greenish gray to orange gray color.	Precambrian at 323 ft. 60° at 331; 80° at 337. 70° at 344; 55° at 352.
	333	343	10	10	0		
	343	353	10	10	0		

Driller Logyear (Rusk) / Logyear 38

97.4% core recovery

Core ID JW Englund

no analyzer

Approx.

## DRILL HOLE LOG - FERROUS

LAT.	+12,665.5N	ANGLE	-75°	MINE	Sunrise, Platte County, Wyoming
DEP.	+3,072.0E	BEARING	North	LOCATION	Emanuel No. 3 W $\frac{1}{2}$ SW $\frac{1}{4}$ SW $\frac{1}{4}$ Sec. 29, T28N, R65W
ELEV.	5,208.5	LEVEL	Surface	HOLE NO.	DDH No. 438

DATE	DRILLED			CORE		MATERIAL	REMARKS
	FROM	TO	FEET	FT.	10ths		
1974							
3-25	353	363	10	10	0	Wide bands of quartz, at 326 to 336; 392 to 440; 467 to 475.	Banding to axis of core. 70° at 359.
	363	373	10	10	0		Core orientation 401-403;
3-26	373	383	10	10	0		413-415; 453-455; 495-498;
	383	393	10	10	0		498-500.
	393	401	8	8	0		70° at 366.
	401	403	2	2	0		80° at 381.
	403	413	10	10	0		65° at 387.
	413	415	2	2	0		60° at 395.
3-27	415	425	10	10	0		75° at 410.
	425	435	10	10	0		80° at 421.
	435	445	10	10	0		60° at 430.
	445	453	8	8	0		70° at 441.
	453	455	2	2	0		
3-28	455	465	10	10	0	Very little oxidation below 460.	70° at 463.
	465	475	10	10	0		80° at 471.
	475	485	10	10	0		80° at 484.
	485	495	10	10	0		
	495	498	3	3	0		
	498	500	2	2	0		
	Bottom of hole.					No noticeable radiation, and very slightly magnetic.	Cap set.
3-29	15 ft NX casing standpipe left in hole.						
1977						Re-Enter	
10-21	500	510	10	10		Graphite sericite chlorite schist with occasional quartz lenses up to 2 inches. Highly contorted. Oxidized pyrite at 527'.	NQ casing.
	510	518	8	8			
	518	528	10	10			
10-24	528	533	5	5	4		
	533	542	9	9			
	542	552	10	10			
	552	562	10	10			
	562	572	10	10			
	572	582	10	10			
	582	592	10	10			
10-25	592	602	10	10			
	602	612	10	10			
	612	622	10	10			
						622' END OF HOLE.	

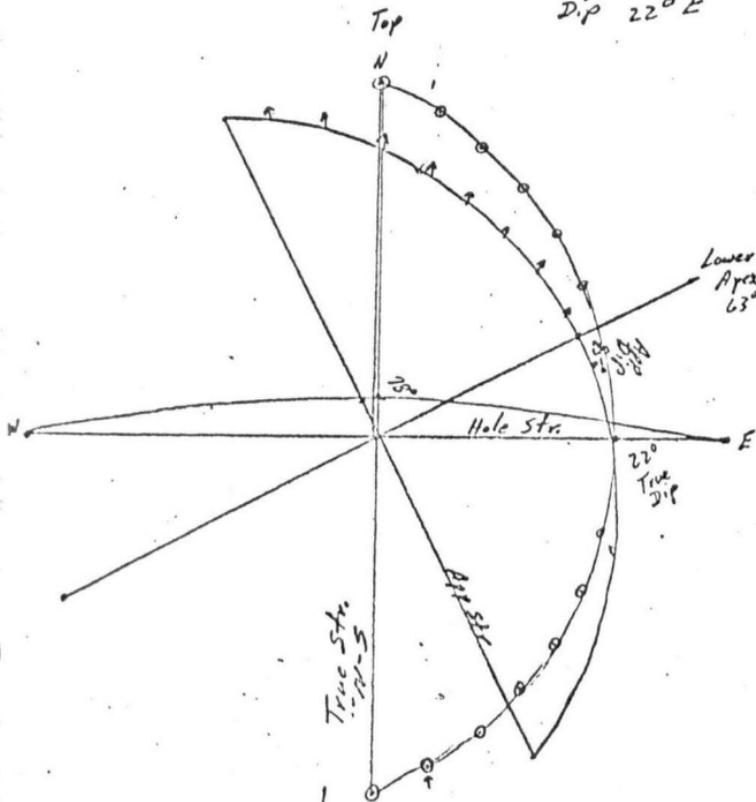


## DRILL HOLE LOG - FERROUS

LAT. +12,665.5N ANGLE -75° MINE Sunrise, Platte County, Wyoming  
 DEP. +3,072.0E BEARING North LOCATION Emanuel No. 3 W $\frac{1}{2}$  SW $\frac{1}{4}$  Sec. 29, T28N, R65W  
 ELEV. 5,208.5 LEVEL Surface HOLE NO. DDH No. 438

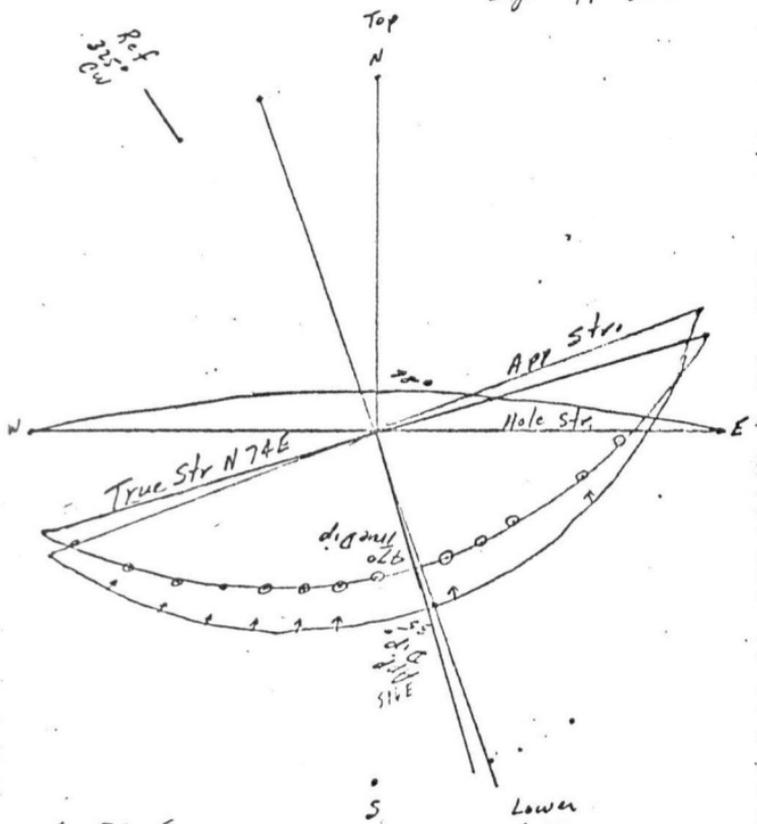
DATE	DRILLED			CORE		MATERIAL	REMARKS
	FROM	TO	FEET	FT			
1974							
						Core Orientation Survey 401-403	
						Schistosity 65° to core (secondary) Upper apex of bedding 55° clockwise from reference line on core. Top of acid tube is 172° clockwise or 188° counterclockwise from reference mark on tube. Inclination angle 81° uncorrected; 78° corrected. Strike N30°E, Dip 25°S60°E.	
						Core Orientation Survey 413-415	
						Good schistosity and banding 55° to core. Upper apex of bedding 15° clockwise from reference line on core. Top of acid tube is 35° clockwise from reference mark. Inclination angle is 81°, corrected angle 78°. Strike N40°E, Dip 35°S50°E.	
						Core Orientation Survey 453-455	
						Schistosity 70° to core (secondary). Upper apex of bedding is 83° clockwise from mark on core. Top of acid tube is 178° clockwise from reference mark on tube. Inclination angle 80° uncorrected; corrected angle 77°. Strike N20°E, Dip 20°S70°E.	
						Core Orientation Survey 498-500	
						Schistosity 75° to core (secondary). Upper apex of bedding 180° clockwise from reference line on core. Top of acid tube is 50° counterclockwise or 310° clockwise from reference mark on tube. Inclination angle 81° uncorrected, 78° corrected. Strike N30°E, Dip 15°S60°E.	

Hole 438  
 403 ft  
 Incl.  $78^{\circ}$  N  
 True Str. N-S  
 Dip  $22^{\circ}$  E



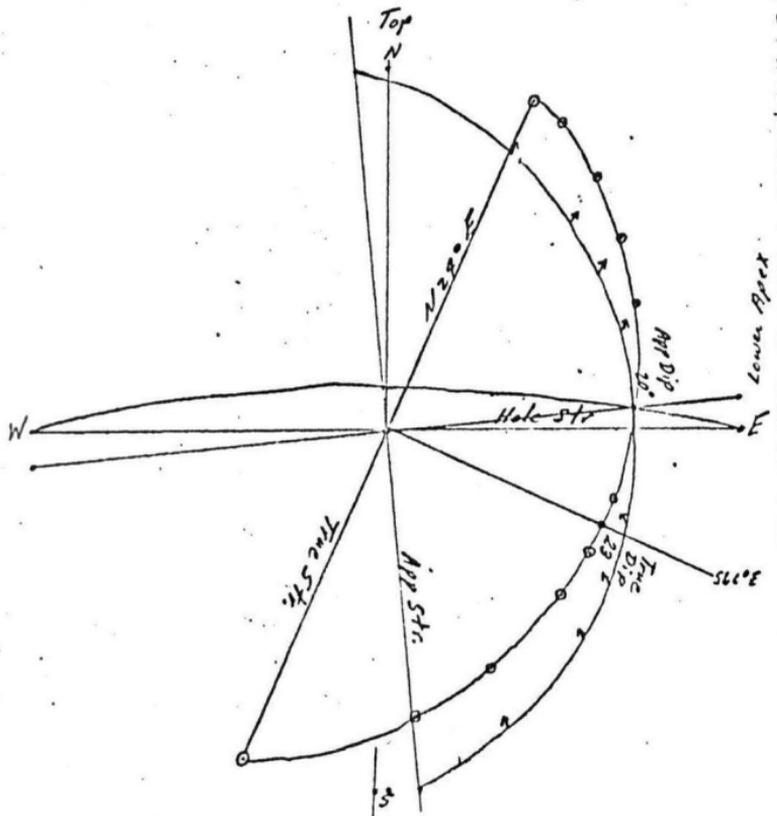
App Dip  $(90-65) = 25^{\circ}$   
 Rotate  $(90-78) = 12^{\circ}$

Hole 438  
 415 ft  
 Incl. 78° N  
 True Str. N 74 E  
 Dip 47° S 16 E



App Dip.  $(90 - 55) = 35^\circ$   
 Rotat.  $(90 - 78) = 12^\circ$

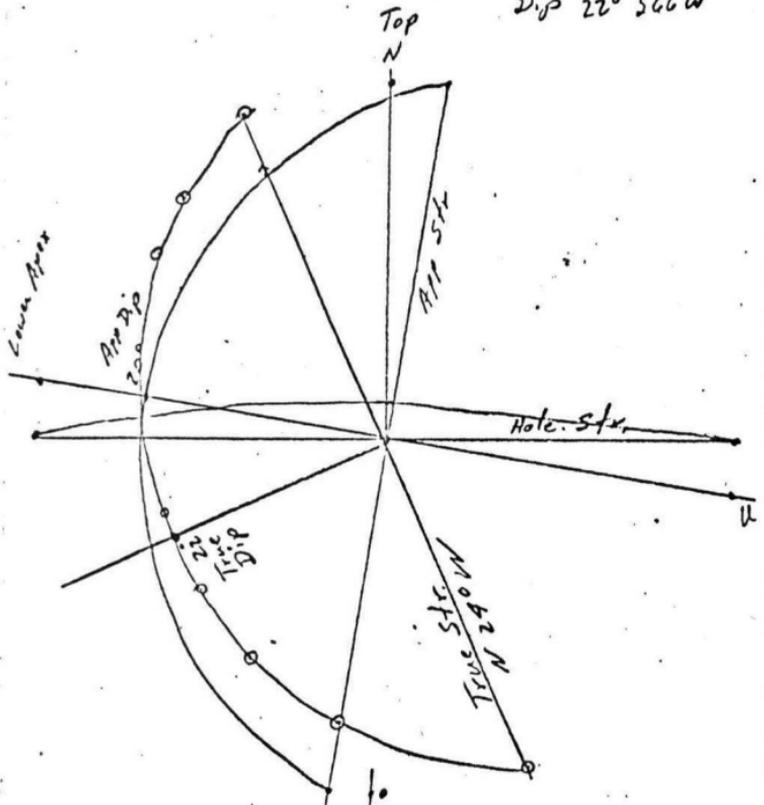
Hole 938  
 455 ft  
 Incl. 77°N  
 True Str. N29°E  
 Dip 23° 56' E



App Dip  $(90 - 70) = 20^\circ$   
 Pch. to  $(90 - 77) = 13^\circ$

Ref  
 182° 26' W

Hole 438  
 455 ft  
 Incl. 77° N.  
 True Str N 24° W  
 Dip 22° S 66° W

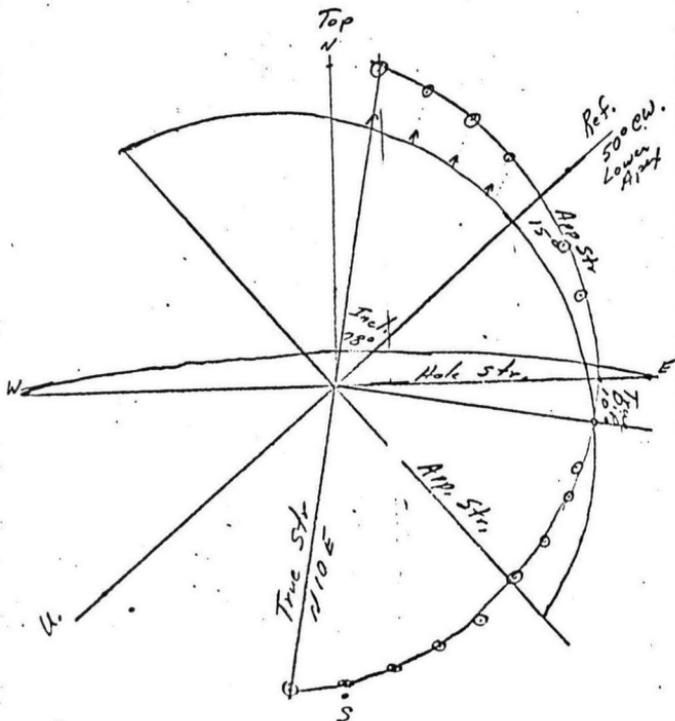


App Dip  $(90 - 70) = 20^\circ$   
 Rotate  $(90 - 77) = 13^\circ$

Ref.  
 182° CW

Wrong  
 Angle on  
 Lower Apex  
 from Ref.  
 should be 263° CW

Hole 438  
 500 ft.  
 Incl. 78°  
 True Str N10°E  
 Dip 10° 58' 0" E



App. Dip.  $(90 - 75) = 15^\circ$

Relate  $(90 - 78) = 12^\circ$

