STRUCTURAL ANALYSIS

Gilt Edge Project
Lawrence County, SD

1936100 - R8 SEMS

(−) (+)

222 entries

Joint Attitudes from Comco Mine Maps (1961)

GLE-SUN. SURFACE WORKINGS

DAKOTA MAID PIT

N 60 E, 90
N 60 E, 90
N 35 E, 81° W
N 43 E, 90
N 80 E, 90
N 8 W, 70° W
N 48 W, 46 SW
N 60 E, 90°

8

SUNDAY PIT AREA

N 30 E
N 10 W
N 73 E
N 38 E
N 35 W
N 70 E
N 62 E
N 12 W
N 30 E
N 75 W
N 30 E (FAULT)

19

N 60 W N 10 W
N 15 W N 60 E
N 80 W N 10 W
N 76 W N 30 W
N 65 W
N 15 W
N 10 W
N 60 E
N 10 W
N 20 E
N 55 E
N 70 W
N 30 E
N 20 E

37

ASSAY MAP - SUN. PIT AREA

N 80 W
N 35 W
N 72 E
N 12 W
N 35 W
N 73 E
N 70 E
N 30 E
N 65 W

16

NORWICH - CROWN POINT AREA

N 85 W
N 80 W, 30° S
N 80 W, 85 N
N 30 E
N 80 E, 85 N
N 30 E
N 32 W
N 30 E
N 30 E
N 30 E
N 35 W

61

ONE JOHN AREA

95

N 55 E	~~N 40 W~~ ~~NC~~	N 80 W, 78 S	N 60 W
N 40 W N 30 E		N 55 E	N 10 W
N 40 W N 20 E		N 70 E	N 30 E
N 30 E N 30 E		N 60 E, 70 S	N 60 W
N 80 E N 80 W, 45 N		N 30 E	N 30 E
N 10 W N 80 W, 30 S		N 30 E	N 30 E
N 30 E N 80 E, 85 N		N 32 W	N 55 E
N 60 E N 80 E, 78 E		N 58 W	N 30 E
N 60 E N 30 W, 70 N		N 30 E	N 10 W
N 30 E		N 30 E	N 60 W

JOINT ATTITUDES FROM COMCO MINE MAPS (1961)

SURFACE WORKINGS TO SOUTH OF SUNDAY PIT –

N30E

N10W

N60E

N60E

N80W

N80E

N40W

N75E

N30E

N30E

N40E

N63W

N30E

N30E

N60W

N10W

N80W

N30E

N30W

N20W

N70E

N60E

N30E

N20E

N80E, 85N

N46W

N29E

N53E

N15E

N64W

129

FRACTURE & JOINT DATA: DAKOTA MAID PIT

[STATIONS REPRESENT ~20' OF OUTCROP]

STATION #1:

	JOINTS	DENSITY	ALTERATION / MINERALIZATION	COMMENTS
30/FT²	N34E, 87E	5/FT	FeOx STAINED	4-5 FT MAGNITUDE
	N47W, 70E	4	"	"
	N40W, 67W	1	"	"
	N55W, 43W	5/FT	"	1-2 FT MINOR FRACTURES
	N8W, 90	?	"	> 10 FT MAG. PARALLELS PIT EDGE

STATION #2

40/FT²	N15W, 45W	7/FT	FeOx	LARGE SCALE JOINTS >10 FT
	N15E, 73E	5/FT	"	4-5 FT MAGNITUDE
	N85W, 60W	1/FT	"	1-2 FT MAGNITUDE
	N58W, 70E	5/FT	"	3 FT MAG.
	N20W, 65W	5/FT	"	3 FT MAG.
	N75E, 90E	1/FT	"	LARGE SCALE JOINTS: >10 FT

STATION 3

				MAGNITUDE
20-25/FT²	N35E, 85W	1/FT	"	1-2 FT
	N55E, 70E	1/FT	"	2 FT
	N28W, 33E	2/FT	"	3-4 FT
	N15W, 55W	20-30/FT		5-10 FT

MOST ROCK AT STA. 3 STRONGLY SHEARED (UNLOADING?) ALONG N15W, 55W PLANE: CRUMBLY OXIDIZED PORPHYRY W/ STRONG ARGILLIC ALT.

STATION 4

				MAGNITUDE
100+/FT²	N84W, 90	1/FT	FeOx STAINED	> 10 FT
	N4E, 86E	1/FT	"	> 10 FT
	N65W, 65E	1/FT	"	3-4 FT
	FRACTURES	20-30/FT		

TOTAL FRACS.

FRACTURE & JOINT DATA: DAKOTA MAID PIT

20/FT²

STATION 5	DENSITY	MINERALIZATION	MAGNITUDE
N85W, 90	1/FT	FeOx	> 10 FT
N38E, 90	2/FT		2-3 FT
N15W, 74W	1/FT		>10 FT

SMALL AREAS W/ FRACTURES ~15/FT DENSITY

STATION 6

40-50/FT²

N58E, 76E	.5/FT	FeOx	>10FT
N55W, 27W	.5/FT		3-4 FT
N70W, 90	3/FT		2-3 FT

UPPER EDGE (FOR ~10 FT BELOW EDGE OF PIT) STRONGLY FRACTURED, PROB. DUE TO UNLOADING.

SMALL FRACTURED AREAS AT STA. 6 REACH ~30/FT DENSITY.

STATION 7

100+/FT²

N31E, 72W	8/FT	Py - FeOx [CRACKLE BRECCIA]	>10 FT
N10W, 25E	1/FT	FeOx	>10 FT
N3E, 40E	1/FT	FeOx	3-4 FT

PORPHYRY AT STA. 7 STRONGLY FRACTURED AT ABOUT 6/IN ≈ 70/FT

STATION 8

100+/FT²

N15W, 25W	1/FT	FeOx	>10 FT
N45E, 65E	2/FT	"	>10 FT
N72W, 90	2/FT	"	>10 FT
N33E, 82E	1/FT	"	>10FT

MOST JOINTS & FRACTURES ARE 4 LISTED. PORPH. IS CRACKLE BRECCIA - FRACTURES ~ 70/FT

STATION 9

20/FT²

N62W, 28°E	<1/FT	FeOx	>>10 FT
N23W, 90	1/FT	FeOx	>> 10FT
N43E, 49W	<1/FT	"	>> 10FT
N16W, 90	<1/FT	"	> 10FT
N53W, 86E	1/FT	"	>> 10FT

JOINT & FRACTURE DATA - DAK. MAID PIT

	STATION 10	DENSITY	MINERALIZATION	MAGNITUDE
40/FT²	N75W, 90	9/FT	FeOx - Py	2 FT
	N32E, 90	1/FT	FeOx	>> 10 FT
	N3E, 70°E	< 1/FT	"	≥ 10 FT
16"	N78E, 90	< 1/FT	"	> 10 FT

MINOR FRACTURING @ ~ 25-40 / FT².

	STATION 11			
50/FT²	N30E, 90	2/FT	FeOx	>> 10 FT
	N18W, 4 W	< 1/FT	"	> 10 FT
16"	N40W, 80 E	< 1/FT	"	> 10 FT
	N70E, 49 NW	< 1/FT	"	> 10 FT.

	STATION 12			
55/FT²	N30E, 70E	7/FT	"	>> 10 FT.
	N68W, 85W	2/FT	"	>> 10 FT
	N90E, 16W	2/FT	"	>> 10 FT.
	N45E, 15W	1/FT	"	> 10 FT
14"	N15W, 45W	2/FT	"	> 10 FT

MINOR BRECCIA ZONES w/ 100+ / FT²

	STATION 13			
40/FT²	N5W, 90	1/FT	"	>> 10 FT
	N40E, 90	3/FT	"	>> 10 FT
	N71W, 90	4/FT	"	> 10 FT
18"	N50E, 75E	< 1/FT	"	3 FT
	N85E, 68W	5/FT	"	10 FT
	N70E, 22E	2/FT	"	> 10 FT

MINOR CRACKLE BRECCIA ZONES w/ 70-80 / FT²

TOT. FRACS	JOINT & FRAC. DATA - DAKOTA MAID PIT			
20/FT²	STATION 14			
	N30E, 90	5/FT		>>10 FT
	N73W, 30 W	<1/FT		>>10 FT
183	N63W, 90	<1/FT		
	FEW BRECCIATED ZONES - SOLID ROCK THROUGHOUT			
	STATION 15			
60-70/FT²	N25E, 63E	5/FT		>10 FT
	N28E, 90	5/FT		>10 FT
	N75W, 30 W	3/FT		>10 FT
183	N63W, 90	<1/FT		>10 FT
	MINOR BRECCIATED ZONES w/ 80-90/FT²			
	STATION 16			
40/FT²	N32E, 90	7/FT		>10'
	N90E, 90	1/FT		4'
	N20W, 35 E	3/FT		5'
	N40W, 15E	3/FT		
14	N70W, 60E	2/FT		
	N66W, 80E	2/FT		
	STATION 17			
70/FT²	N35E, 90	25/FT	[SHEAR ZONE]	>>10'
	N78E, 83W	4/FT		10'
	N90E, 81 W	1/FT		10'
17	N75W, 58W	3/FT		
	STATION 18			
25/FT²	N38E, 85W	1/FT		<<10'
	N60E, 86 W	2/FT		<10'
	N10E, 22 W	1/FT		10'
20	N28E, 65 E	8/FT		10'
	N31W, 26 W	1/FT		>10'

TOT. FRACS	JOINT & FRACTURE DATA - DAKOTA MAID PIT		
	STATION 19 - IN ADIT - SE END OF PIT		
30/FT²	N14W, 30W	1/FT	>10
	N10W, 90	1/FT	>10
	N35W, 10 E	1/FT	10
	N25E, 90	10/FT	>10
90	N45E, 66E	2/FT	2 FT
	STATION 20		
50/FT²	N90E, 90	2/FT	
	N28E, 90	3/FT	
	N30E, 88W	1/FT	
	N60E, 84 NW	2/FT	
70	N70W, 90	1/FT	
	N40W, 80W	3/FT	

— SUNDAY PIT AREA —

STATION 21

2+3

SUNDAY PIT AREA

	STATION 21	DENSITY	MAG.
30/FT²	N90E, 85W	?	?

100/FT²

STATION 22

N20E, 90

N53W, 43W

100+/FT²

STA 23 "CRACKLE BRECCIA"

N75E, 90

N10W, 90

N52W, 60E

STA. 24

40/FT²

N44W, 90

N50E, 90

N6W, 41E

40/FT²

STA. 25