9-22-82
Spring
1.5 gpm
8-25-83
2 gpm
10-11-84
4 gpm
8-12-85
2.2 gpm

8-12-85
Small crack appears
enlarged by animals
≈1 foot wide and
20 to 30 feet long

8-25-83
Large sink hole
≲40 foot diameter
⊙20 feet deep

10-11-84
Three small
sink holes

9-22-82
Large crack
parallel with
contour
≲50 feet long
Up to 4 feet wide
4 feet deep

9-22-82
Numerous cracks
parallel with
contours
30 feet long
5 feet apart
≈1 foot wide
≈1 foot deep

8-12-85
Cracks ≈1 foot wide
up to 2 feet deep

8-12-85
long intermittent crack
up to 6 inches wide
and 2 feet deep

10-11-84
Two long cracks
Up to 2 feet wide
≈2 feet deep

10-11-84
Sink holes
30 foot diameter
25 feet deep
10 foot diameter
5 feet deep

10-11-84
Fractures
2" to 3" wide
1 foot deep

8-12-85
No surface
cracking observed

8-12-85
No surface cracking observed

8-25-83
Sink holes
30 foot diameter
15 feet deep
30 foot diameter
25 feet deep

8-25-83
Cracks
2 feet wide
2 feet deep
3 inches wide
1 foot deep

8-12-85
Numerous concentric cracks
around sink holes 6 inches
to 18 inches wide 6 inches
to 3 feet deep

10-11-84
Multiple fractures
parallel to contour
1 foot to 1.5 feet wide
Up to 5 feet deep
Spaced about
6 feet apart

8-12-85
≈200 foot long crack
2 to 3 inches wide
2 inches deep

8-12-85
Possible small crack
may be just animal activity

8-12-85
Long crack up to 2 feet
wide and 3 feet deep a
depressed area is
located just down hill
of crack

8-12-85
two cracks 1 inch to
2 inches wide up to
8 inches deep

SOUTH WHISKY CANYON
WEST MAINS
NORTH MAINS
2ND WEST MAINS
SOUTH MAINS
1ST EAST MAINS
2ND EAST MAINS
3RD EAST MAINS
3RD WEST MAINS
WEST RETURN
SOUTH MAINS
EAST RETURN
CARBON CO
EMERY CO
BOARDINGHOUSE CANYON
FINN CANYON
Proposed Conveyor Route
Waste Water Treatment
Sedimentation Pond
Water Tank
Shop
Bath House
Pump House
Silo
Truck Dump
Fan House
Coal Stack
Sub Station
Top Soil Storage
Black Diamond Mine
O'Connor Mine
Gas Line
Tank
Antenna
"A"
"B"
"C"
VC-1
VC-2
VC-3
BH-5
74-26-1
76-24-1
76-25-2
76-25-1
76-25-3
75-30-3
74-36-2
75-36-2
74-36-1
75-36-1
75-31-1

LEGEND

- Lease boundary
- Gas line
- ▲ BH-5 — Survey Monument
- Mine workings
- Pillard area
- Full seam extraction
- 9-22-82 — Date surface subsidance first identified (mo-day-yr)

SURVEY MONUMENT COORDINATES

SURVEY STATION	VALLEY CAMP LOCAL COORDINATES NORTH	EAST	STATE PLANE COORDINATES NORTH	EAST	ELEVATION
BH-3	4617.75	7,538.16	483,094.07	2,090,182.13	9,633.90
BH-5	8007.62	10,995.79	486,456.40	2,086,701.37	9,477.02
VC-1	6675.64	6,658.70	485,157.19	2,091,045.80	9,645.43
VC-2	7085.35	9,508.81	485,545.56	2,088,194.29	8,973.99
VC-3	8016.68	9,809.89	486,474.13	2,087,886.47	9,211.78
B	1415.58	10,715.16	477,040.93	2,087,051.59	9,897.29
P	3700.00	12,700.00	482,137.84	2,085,025.59	9,942.39
C	454.00	8,973.00			9,735.00
A	2375.32	9,000.59			9,562.00
FAN	7130.101	9,923.041			9,041.30

DATE	BY	DATE	BY
2-82	DRB		
2-83	JVH		
9-83	DRB		
1-85	DRB		
8-85	JVH		

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SEP 18 1985
DIVISION OF OIL
GAS & MINING

SUBSIDANCE BASE MAP FOR THE VALLEY CAMP LEASE AREA

PREPARED BY:
VAUGHN HANSEN ASSOCIATES
INCORPORATED
SALT LAKE CITY, UTAH

December, 1980

PLATE 3

SCALE: 1 inch = 500 feet