

SURVEY NOTES-HIGH RESOLUTION DATA

GEQ-445

Geosource Inc.

PAGE 1 OF 60

DATE 10-19-82	INSTRUMENT MAN B. Cottramp	ROD MAN D. Hamilton	PARTY NUMBER 6834	NOTES CHECKED BY D.H.	LINE NO. 4	PAGE 1
AREA UTAH	TOPO MAP Red Point- 7 1/2'	STATE UTAH	COUNTY Emery	TWP	RANGE	PPM
				PARTY MANAGER E.O. Davis		

STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS
												LAT.	DEP.	Y	X	
										5997.0	T4					SCALED Y-337,245 X-2,111,790 T-RO SOUTH EL.5997.0
		SOUTH	ELEVATION +		+4.5	-	+4.5		6001.5		BS	-366	+917			
			277° 21' 11" -180	+14.4	4.4	270° -	+4.4				BS	-1	-2			
1	1654		276° 45'	" "	9.7	TH	+8.3	-1.4		6000.1		+597	-1543	337,475	2,111,162	B.O.L. LINE-4
2	1324		276° 42'	" "	9.6	TH	+6.6	-3.0		5998.5		+477	-1235	337,355	2,111,470	
3	994		276° 34'	" "	9.7	TH	+5.0	-4.7		5996.8		+356	-928	337,234	2,111,777	
4	664		276° 25'	" "	8.7	TH	+3.3	-5.4		5996.1		+236	-621	337,114	2,112,084	
5	333		275° 35'	" "	7.0	TH	+1.7	-5.3		5996.2		+114	-313	336,992	2,112,392	
6	0				5.2	-	-5.2			5996.3	T	0	0	336,878	2,112,705	ACROSS STA.
7	331		111° 18'	+14.4	5.9	TH	+1.7	-4.2		5997.3		-193	+269	336,685	2,112,974	
8	660		112° 15'	" "	9.0	89° 20'	+7.7	-1.3		6000.2		-394	+529	336,484	2,113,234	
9	990		112° 36'	" "	9.8	89° 20'	+11.5	+1.7		6003.2		-596	+791	336,282	2,113,495	
10	1320		112° 58'	" "	9.3	89° 30'	+11.5	+2.2		6003.7		-801	+1049	336,077	2,113,754	
11	1650		113° 18' 23"	" "	12.4	89° 40'	+9.6	-2.8			TP	-1009	+1305	335,868	2,114,008	
11	1650				12.3	270° 20'	+9.6	-2.7		5998.8	TP	-1	-2			
	1978		293° 15' 47" -180	+14.4	4.6	88° 30'	-51.8	-47.2	5951.5		BS	-1208	+1565			
	1978				+4.4	271° 30'	-51.8	-47.4	47.3		BS	-1	-2			
12	1650		293° 05'	+14.4	4.1	88° 30'	+43.2	+39.1		5990.6		+1004	-1309	335,663	2,114,263	
13	1320		293° 01'	" "	8.7	88° 30'	+34.5	+25.8		5977.3		+802	-1048	335,461	2,114,523	
14	990		292° 40'	" "	4.9	89° -	+17.3	+12.4		5963.9		+597	-790	335,256	2,114,782	

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DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10-19-82		B. Colcamp		D. Hamilton		6834		D.H.		4		2			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		Red Point-7 1/2'		UTAH		Emery								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									5951.5						
15	660		292° 07'	+14.4	5.8	89° -	+11.5	+5.7		5957.2		+393	-530	335,652	2,115,041
16	330		290° 06'	" "	4.9	89° -	+5.8	+0.9		5952.4		+187	-272	334,846	2,115,299
17	0				5.2	-		-5.2		5946.3	X	0	0	334,659	2,115,571
18	330		101° 58'	+14.4	7.0	91° -	5.8	12.8		5938.7		-147	+296	334,512	2,115,867
19	657		97° 24'	" "	7.5	91° -	11.5	19.0		5932.5		-244	+610	334,415	2,116,181
20	981		93° 24'	" "	6.2	91° -	17.1	23.3		5928.2		-300	+934	334,359	2,116,505
21	1308		90° 40'	" "	4.7	91° -	22.8	27.5		5924.0		-340	+1263	334,319	2,116,834
22	1636		89° 02' 28"	" "	5.6	91° -	-28.6	-34.2		5917.5	TP	-380	+1591	334,278	2,117,160
22	1636				5.3	269° -	-28.6	-33.9	-340.3		TP	-	-		
	2316		262° 09' 18" -180	+14.4+	10.1	89° -	-40.4	-30.3	5887.0		BS	-264	+2301		
	2316			+	9.7	271° -	-40.4	-30.7	30.5		BS	-	-		
23	1986		262° 05'	+14.4	11.9	89° -	+34.7	+22.8		5909.8		+224	-1973	334,237	2,117,486
24	1656		262° 01'	" "	8.6	89° 10'	+24.1	+15.5		5902.5		+185	-1645	334,197	2,117,813
25	1328		262° 00'	" "	9.9	89° 10'	+19.3	+9.4		5896.4		+148	-1320	334,160	2,118,139
26	998		261° 59'	" "	5.9	89° 10'	+14.5	+8.6		5895.6		+111	-992	334,123	2,118,467
27	668		261° 58'	" "	6.0	89° -	+11.7	+5.7		5892.7		+74	-664	334,086	2,118,795
28	336		260° 19'	" "	6.2	89° -	+5.9	0.3		5886.7		+28	-335	334,040	2,119,124
29	0				5.2	-		-5.2		5881.8	X	0	0	334,012	2,119,459
30	332		100° 55'	+14.4	6.9	-		-6.9		5880.1	1	-142	+300	333,870	2,119,759
31	662		101° 15'	" "	10.0	84	-3.3	13.3		5873.7		-287	+597	333,726	2,120,056

Red Point - 7 1/2'
Castle Dale - 15'
↓

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DATE 10-19-82	INSTRUMENT MAN B. Cotcamp	ROD MAN D. Hamilton	PARTY NUMBER 6834	NOTES CHECKED BY D.H.	LINE NO. 4	PAGE 3
AREA UTAH	TOPO MAP Castle Dale-15	STATE UTAH	COUNTY Emery	TWP	RANGE	PPM
				PARTY MANAGER L.O. Davis		

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
									5887.0					
32	992		102° 36'	+14.4°	11.0	04	-5.0	-16.0		5871.0		-450	+884	333,562 2,120,343
33	1322		103° 41'	" "	9.6	04	-6.6	-16.2		5870.8		-622	+1166	333,390 2,120,625
34	1651		104° 19' 53"	" "	5.7	90° 30'	-14.4	-20.1		5867.1	TP	-794	+1448	333,218 2,120,905
34	1651				5.4	269° 30'	-14.4	-19.8	-19.9		TP	-1	-2	
	2969		286° 55' 34" -180°	+14.4°	8.6	89° 10'	-43.2	-34.6	5832.3		BS	-1543	+2536	
	2969				8.1	270° 50'	-43.2	-35.1	-34.8		BS	-1	-2	
35	2640		286° 46'	+14.4°	10.8	89° 10'	+38.4	+27.6		5859.9		+1366	-2259	333,039 2,121,180
36	2310		286° 43'	" "	6.6	89° 20'	+26.9	+20.3		5852.6		+1194	-1978	332,867 2,121,461
37	1980		286° 37'	" "	9.3	89° 20'	+23.0	+13.7		5846.0		+1020	-1697	332,693 2,121,742
38	1650		286° 26'	" "	8.8	89° 20'	+19.2	+10.4		5842.7		+846	-1417	332,519 2,122,022
39	1320		286° 12'	" "	8.8	89° 20'	+15.4	+6.6		5838.9		+672	-1136	332,345 2,122,302
40	990		285° 50'	" "	9.1	89° 20'	+11.5	+2.4		5834.7		+498	-855	332,172 2,122,583
41	660		285° 06'	" "	10.3	89° 20'	+7.7	-2.6		5829.7		+325	-574	331,998 2,122,864
42	330		282° 40'	" "	8.0	89° 20'	+3.8	-4.2		5828.1		+150	-294	331,823 2,123,145
43	0				5.2	-		-5.2		5827.1	TP	0	0	331,673 2,123,438 ACROSS STA.
44	330		112° 25'	+14.4°	4.1	-		-4.1		5828.2		-198	+264	331,478 2,123,703
45	660		109° 49'	" "	5.6	-		-5.6		5826.7		-371	+546	331,302 2,123,984
46	989		109° 23'	" "	8.5	-		-8.5		5823.8		-550	+822	331,123 2,124,260
47	1319		109° 17'	" "	11.6	-		-11.6		5820.7		-732	+1098	330,942 2,124,536
48	1648		109° 14'	" "	6.4	04	-8.2	-14.6		5817.7		-913	+1372	330,760 2,124,811

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10-19-82		B. Cotcamp		D. Hamilton		6834		D.H.		4	4						
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
UTAH		Castle Dale-15		UTAH		Emery					L.O. Davis						
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
									5832.3								
49	1978		109° 13'	+14.4°	8.0	84	-9.9	-77.9		5814.4		-1095	+1647	330,578	2,125,086		
50	2309		" "	" "	10.7	84	-11.5	-22.2		5810.1		-1278	+1923	330,395	2,125,361		
51	2639		109° 11' 25"	" "	13.1	84	-13.2	-26.3		5806.3	TP	-1460	+2198	330,212	2,125,635		
51	2639				12.6	84 270°	-13.2	-25.8	-26.3		TP						
	1315		291° 29' 22" -180	+14.4°	8.1	89° 20'	-75.3	-7.2	5799.1		BS	-771	+1065				
	1315				8.0	270 40'	-75.3	-7.3			BS						
52	985		292° 05'	+14.4°	8.1	89° 20'	+11.5	+3.4		5802.5		+586	-792	330,026	2,125,906		
53	656		292° 53'	" "	6.0	89°	+11.4	+5.4		5804.5		+397	-522	329,838	2,126,176		
54	325		292° 14'	" "	4.2	89°	+5.7	+1.5		5800.6		+194	-261	329,634	2,126,437		
55	0				5.2	-		-5.2		5793.9	A	0	0	329,440	2,126,698	ACROSS ROAD UNDER POWERLINE	
55	38		201° 20'	+14.4°	6.3	-		-6.3		5792.8		-31	-22	329,410	2,126,676		
56	358		161° 50'	" "	6.9	91°	-6.2	-13.1		5786.0		-357	+24	329,083	2,126,722		
57	686		163° 09'	" "	6.3	91°	-12.0	-18.3		5780.8		-685	+29	328,755	2,126,727		
58	1016		163° 24'	" "	4.8	91°	-17.7	-22.5		5776.6		-1015	+39	328,425	2,126,737		
59	1345		163° 32'	" "	5.0	91° 06'	-25.8	-30.8		5768.3		-1344	+48	328,097	2,126,747		
60	1669		162° 50' 41"	" "	5.5	91° 10'	-34.0	-39.5		5759.7	TP	-1667	+80	327,773	2,126,776		
60	1669				5.3	268 50'	-34.0	-39.3	-39.5		TP						
	844		263° 36' 48" -180	+14.4°	11.9	-		+11.9	5771.6		BS	-118	+836				
	844				11.8	270°		+11.8			BS						
61	540		260° 24'	+14.4°	5.4	84	-2.7	-8.1		5763.5		+45	-538	327,699	2,127,072		

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DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10-19-82		B. Cottramp		D. Hamilton		6834		D.N.		4		5			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		Castle Dale-15		UTAH		Emery								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									5771.6						
62	205		266° 35'	+14.4	7.3	-	-7.3		5764.3			+39	-201	327,693	2,127,409
π	0				5.2	-	-5.2		5766.4	π		0	0	327,654	2,127,610 near corner.
63	124		99° 37'	+14.4	3.8	-	-3.8		5767.8			-50	+113	327,604	2,127,723
64	453		101° 52'	"	4.0	TM	+2.3	1.7	5769.9			-200	+406	327,454	2,128,016
65	786		101° 18' 36"	"	4.1	-	-4.1			TP		-341	+708	327,312	2,128,316 Access station.
65	786				4.0	270°	-4.0		5767.6	TP					
	2086		284° 50' 54" -180	+14.4	3.8	-	+3.8	5771.3		BS		-1019	+1820		
	2086				3.5	270°	+3.5	+3.7		BS					
66	1759		284° 06'	+14.4	7.0	-	-7.0		5764.3			+839	-1546	327,131	2,128,588
67	1430		283° 49'	"	8.3	-	-8.3		5763.0			+676	-1260	326,968	2,128,874
68	1099		283° 15'	"	9.2	-	-9.2		5762.1			+510	-973	326,802	2,129,161
69	769		282° 53'	"	9.2	-	-9.2		5762.1			+353	-683	326,644	2,129,451
70	440		283° 12'	"	9.3	-	-9.3		5762.0			+204	-390	326,496	2,129,744
71	119		302° 27'	"	5.3	-	-5.3		5766.0			+87	-81	326,379	2,130,053
π	0				5.2	-	-5.2		5766.1	π		0	0	326,292	2,130,134
72	236		77° 49'	+14.4	7.1	87°	+12.3	+5.2	5776.5			-9	+236	326,283	2,130,370
73	563		83° 00'	"	7.3	87°	+29.4	+22.1	5793.4			-72	+558	326,219	2,130,692
74	893	891.8	82° 49'	"	8.2	87°	+46.7	+38.5	5809.8			-112	+885	326,180	2,131,019
75	1221	1219.3	81° 23'	"	11.0	87°	+63.8	+52.8	5824.1			-123	+1213	326,169	2,131,347

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10-19-82		B. Cotcamp		O. Hamilton		6834		D.H.		4	6					
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER					
UTAH		CASTLE DALE-15		UTAH		EMERY					L. O. Davis					
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS
												LAT.	DEP.	Y	X	
									5771.3							
76	1550	1548.3	79° 54' 02"	+14.4°	8.7	87° 20'	+72.1	+63.4			TP	-116	+1544	326,175	2,131,676	
76	1550				8.6	272° 40'	+72.1	+63.5		5834.8	TP	-1	-2			
	1650		254° 58' 58" -180	+14.4°	12.6	BH -	+8.3	+20.9	5855.7		BS	+18	+1650			
	1650				12.3	BH 270°	+8.3	+20.6	20.9		BS					
77	1320		255° 09'	+14.4°	7.0	BH	-6.6	-3.6		5842.1		-10	-1320	326,181	2,132,004	
78	990		" "	" "	9.8	-		-9.8		5845.9		-8	-990	326,184	2,132,334	
79	660		" "	" "	8.1	-		-8.1		5847.6		-5	-660	326,186	2,132,664	
80	330		" "	" "	6.6	-		-6.6		5849.1		-3	-330	326,189	2,132,994	
81	0				5.2	-		-5.2		5850.5	X	0	0	326,192	2,133,324	
82	330		74° 36'	+14.4°	5.0	TH	+1.7	-3.3		5852.4		+6	+330	326,197	2,133,654	
83	660		" "	" "	5.0	TH	+3.3	-1.7		5854.0		+12	+660	326,203	2,133,984	
84	990		" "	" "	6.7	TH	+5.0	-1.7		5854.0		+17	+990	326,209	2,134,314	
85	1320		" "	" "	10.2	TH	+6.6	-3.6		5852.1		+23	+1320	326,215	2,134,644	AROUND
86	1650		73° 58'	" "	7.7	-		-7.7		5848.0		+47	+1649	326,239	2,134,973	CORNER
87	1976		72° 40' 22"	" "	11.0	-		-11.0		5844.7	TP	+101	+1973	326,291	2,135,296	" "
87	1976				10.9	270°		-10.9			TP	-1	-2			" "
	1702		230° 58' 53" -180	+14.4°	4.1	90°		+4.1	5848.7		BS	+709	+1547			
	1702				3.9	270°		+3.9	4.0		BS	-1	-2			
88	1379		228° 25'	" "	5.0	90° 05'	-2.0	-7.0		5841.7		-630	-1227	326,369	2,135,614	

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10-19-82		B. Cotcamp		D. Hamilton		6834		D.H.		4	7						
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
UTAH		Castle Dale-15'		UTAH		Emery					L.O. Davis						
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
									5848.7								
89	1052		226° 00'	+14.4	10.1	TH	+5.3	-4.8		5843.9		-520	-915	326,480	2,135,926		
90	722		223° 21'	" "	7.1	TH	+3.6	-3.5		5845.2		-385	-611	326,614	2,136,230		
91	394		221° 21'	" "	6.8	89° 30'	+3.4	-3.4		5845.3		-221	-326	326,778	2,136,515		
92	65		220° 38'	" "	5.0	90° 05'	-0.1	-5.1		5843.6		-37	-53	326,962	2,136,788		
\bar{x}	0		"		5.2	-		-5.2		5843.5	\bar{x}	0	0	326,999	2,136,841		
93	266		37° 02'	+14.4	12.1	-		-12.1		5836.6		+166	+208	327,165	2,137,049		
94	596		37° 14'	" "	5.6	92° -	-20.8	-26.4		5822.3		+370	+467	327,369	2,137,308		
95	926		37° 23'	" "	12.7	92° -	-32.3	-45.0		5803.7		+573	+727	327,572	2,137,568		
96	1255		" "	" "	12.6	92° -	-43.8	-56.4		5792.3		+776	+985	327,775	2,137,826		
97	1585	1584.0	37° 31'	" "	5.0	92° -	-35.3	-60.3		5788.4		+977	+1247	327,976	2,138,088		
98	1915	1914.3	" "	+14.4	6.7	91° 30'	-50.1	-56.8		5791.9		+1181	+1507	328,180	2,138,348		
99	2241		38° 11' 41"	" "	8.5	91° 10'	-45.6	-54.1		5794.6	TP	+1361	+1780	328,360	2,138,619		
99	2241			" "	8.4	268° 50'	-45.6	-54.0			TP						
	598		263° 05' 36" -180	+14.4	10.4	89° 30'	-5.2	+5.2	5799.8		BS	-78	+593				
	598			+	10.3	270° 30'	-5.2	+5.1			BS						
100	302		259° 20'	+14.4	6.0	89° -	+5.3	0.7		5799.1		+20	-301	328,302	2,138,908	Through corners	
101	0		" "	" "	5.2	-		-5.2		5794.6	\bar{x}	0	0	328,282	2,139,209	" "	
102	330		118° 49'	" "	5.6	93° 30'	-20.1	-25.7		5774.1		+226	+240	328,056	2,139,450		
103	659		116° 57'	" "	5.8	92° 10'	-24.9	-30.7		5769.1		-435	+494	327,847	2,139,704		

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
10-20-82		B. Cotcamp		D. Hamilton		6834		A.H.		4	8				
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER				
UTAH		CASTLE DALE-15'		UTAH		Emery					L.O. Davis				
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									5799.8						
104	987		114° 41' 48"	+14.4	9.3	92° 16'	-37.3	-46.6	5746.5	5753.3	TP	-622	+765	327,660	2,139,973
104	987				9.1	267° 50'	-37.3	-46.4		TP					
	971		260° 51' 00" -180	+14.4	7.1	-		+7.1	5760.2		BS	-89	+967		
	971				6.8	270°		+6.8		BS					
105	660		255° 11'	+14.4	12.0	-		-12.0		5748.2		-5	-660	327,567	2,140,280
106	330		" "	" "	8.9	-		-8.9		5751.3		-2	-330	327,570	2,140,610
107	0				5.2	-		-5.2		5755.0	π	0	0	327,572	2,140,940
108	330		75° 23'	+14.4	7.3	92°	-11.5	-78.8		5741.4		+1	+330	327,573	2,141,270
109	576		94° 42'	" "	9.7	92°	-20.1	-29.8		5730.4		-188	+544	327,383	2,141,484
110	758		118° 38' 08"	" "	7.7	92°	-26.5	-34.2	-34.1	5726.1	TP	-517	+554	327,055	2,141,492
110	758				7.5	268°	-26.5	-34.0		TP					
	1896		344° 24' 43" -180	+14.4	11.9	89°	-33.1	-21.2	5704.7		BS	-1895	+39		
	1896				11.5	271°	-33.1	-21.6		BS					
111	1566		344° 22'	+14.4	7.7	89° 10'	+22.8	+75.1		5719.8		+1565	-34	326,725	2,141,497
112	1236		344° 15'	" "	8.6	89° 10'	+18.0	+9.4		5714.1		+1236	-29	326,395	2,141,502
113	906		" "	" "	7.8	89° 10'	+13.2	+5.4		5710.1		+906	-21	326,065	2,141,510
114	576		343° 49'	" "	6.7	89°	+10.1	+4.4		5709.1		+576	-18	325,735	2,141,513
115	246		342° 44'	" "	6.5	88° 20'	+7.2	+0.7		5705.4		+246	-12	325,405	2,141,519
π	0				5.2	-		-5.2		5699.5	π	0	0	325,159	2,141,531

SURVEY NOTES-HIGH RESOLUTION DATA
GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
10-20-82		B. Cotcamp		D. Hamilton		6834		D.H.		4	9					
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER					
UTAH		HAODEN Holes-7 1/2		UTAH		Emery					L.O. Davis					
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS		
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y	X
									5704.7							
116	82		130 25	+14.4	5.4	91 40'	-2.4	-7.8		5696.9		-67	+47	325,092	2,141,578	Through corner ↑
117	398		114 32'	"	5.8	90 30'	-3.5	-9.3		5695.4		-250	+310	324,909	2,141,840	" " CASTLE DAVIS
118	689		97 36'	"	6.2	90 30'	-6.0	-12.2		5692.5		-258	+639	324,901	2,142,170	" " HAODEN
119	1005		90 50'	"	8.3	90 30'	-8.8	-17.1		5687.6		-264	+970	324,895	2,142,501	" " Holes-7 1/2 ↓
120	1327		87 31 02"	"	9.1	90 30'	-11.6	-20.7		5684.1	TP	-274	+1298	324,885	2,142,829	1300' OFFSET SOUTH (scaled)
120	1327				8.8	249 30'	-11.6	-20.4	-20.6		TP					120 40' FROM MIDDLE
	1270		357 16 59 -180	+14.4	8.6	89 30'	-11.1	-2.5	5681.5		BS	-1244	-257			OF INTERSECT.
	1270				8.3	270 30'	-11.1	-2.8	26.5		BS					
≠	1298		359 00 14"	+14.4	7.1	89 30'	+11.3	+4.2		5685.7	≠	+1263	+301	324,904	2,142,873	y-324,895 x-2,142,890 T-ROAD WEST. Highway 10
T	49		260 34 37"	"	2.6	-	-	-2.6		5678.9	T	+4	-49	323,646	2,142,523	y-323,635 x-2,142,515 T-T-ENT.
X	0				5.2	-	-	-5.2		5676.3	X	0	0	323,642	2,142,572	
121	240		77 17'	+14.4	4.3	-	-	-4.3		5677.2		-7	+240	323,635	2,142,812	STA. 121 280 FROM MIDDLE OF ENT.
122	570		76 11'	"	10.2	88 40'	+13.3	+3.1		5684.6		-6	+570	323,636	2,143,142	
123	900		75 44'	"	6.0	88 30'	+23.6	+17.6		5699.1		-2	+900	323,640	2,143,472	
124	1229		75 28 08"	"	9.7	88 40'	+25.0	+15.3		5676.8	TP	+3	+1229	323,645	2,143,801	
124	1229				9.6	271 10'	+25.0	+15.4			TP					
	1649		254 56 36 -180	+14.4	10.9	88 50'	-33.6	-22.7	5674.0		BS	+19	+1649			
	1649				10.6	271 10'	-33.6	-23.0	22.8		BS					
125	1320		254 44'	+14.4	10.3	88 50'	+26.9	+16.6		5690.6		-20	-1320	323,643	2,144,130	
126	990		"		7.5	88 40'	+23.0	+15.5		5689.5		-15	-990	323,648	2,144,460	

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10-20-82		B. Cotcamp		D. Hamilton		6834		b.H.		4		10			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		HADDEN HOLES-7 1/2'		UTAH		Emery								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									5674.0						
127	660		254° 44'	+14.4°	6.0	88° 40'	+15.4	+9.4		5683.4		-10	-660	323,653	2,144,790
128	330		" "	" "	5.4	88° 40'	+7.7	+2.3		5676.3		-5	-330	323,658	2,145,119
129	0				5.2	-		-5.2		5668.8	TP	0	0	323,663	2,145,449
130	330		75° 15'	+14.4°	6.0	91° -	-5.8	-11.8		5662.2		+2	+330	323,665	2,145,779
131	660		" "	" "	6.5	91° -	-11.5	-18.0		5656.0		+4	+660	323,667	2,146,109
132	990		" "	" "	8.2	91° -	-17.3	-25.5		5648.5		+6	+990	323,669	2,146,439
133	1320		" "	" "	8.8	91° -	-23.0	-31.8		5642.2		+8	+1320	323,671	2,146,769
+	1458		75° 05' 29"	" "	9.2	91° -	-25.4	-34.6		5639.4	Sec. Line.	+13	+1458	323,676	2,146,907
134	1649		75° 15' 29"	" "	8.6	91° -	-28.8	-37.4		5636.8	TP	+10	+1649	323,673	2,147,098
134	1649				8.2	289° -	-28.8	-37.0			TP				
	3299		254° 51' 11" -180	+14.4°	12.9	89° 10'	-48.0	-35.1	5662.4		BS	+43	+3298		
	3299				12.2	270° 50'	-48.0	-35.8	5654.4		BS				
135	2970		254° 51'	+14.4°	5.2	89° 20'	+34.5	+29.3		5630.7		-39	-2970	323,677	2,147,427
136	2640		" "	" "	6.0	89° 20'	+30.7	+24.7		5626.1		-35	-2640	323,682	2,147,757
137	2310		" "	" "	6.6	89° 20'	+26.9	+20.3		5621.7		-30	-2310	323,686	2,148,087
138	1980		" "	" "	7.8	89° 20'	+23.0	+15.2		5616.6		-26	-1980	323,690	2,148,417
139	1650		254° 51'	+14.4°	9.1	89° 20'	+19.2	+10.1		5611.5		-22	-1650	323,694	2,148,747
140	1320		" "	" "	9.1	89° 20'	+15.4	+6.3		5607.7		-17	-1320	323,699	2,149,077
141	990		" "	" "	9.1	89° 20'	+11.5	+2.4		5603.8		-13	-990	323,703	2,149,407
142	660		" "	" "	8.1	89° 20'	+7.7	0.4		5601.0		-9	-660	323,708	2,149,737

y-323,695 x-2,146,900
SEC. CORNER ON ROAD

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
10-20-82		B. Cotcamp		B.D. Hamilton		6834		D.H.		4		11				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
UTAH		HIDDEN HOLES-7 1/2		UTAH		Emery								L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS		
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y	X
									5601.4							
143	330		254° 51'	+14.4	6.3	89° 20'	+3.8	-2.5		5598.9		-4	-330	323,712	2,150,667	
144	0				5.2	-		-5.2		5596.2	TP	0	0	323,716	2,150,396	
145	330		74° 52'	+14.4	10.3	89° 30'	+2.9	+7.4		5608.8		+4	+330	323,720	2,150,726	
146	660		" "	" "	9.4	-		-9.4		5592.0		+8	+660	323,724	2,151,056	
147	990		" "	" "	10.5	-		-10.5		5590.9		+13	+990	323,729	2,151,386	
247	1085		74° 37' 07"	" "	9.7	-		-9.7		5591.7	4.7					
148	1320		74° 52'	+14.4	7.7	TH	+6.6	-1.1		5600.3		+17	+1320	323,733	2,151,716	
149	1650		" "	" "	8.2	TH	+8.3	+0.1		5601.5		+21	+1650	323,737	2,152,046	
150	1980		" "	" "	11.0	TH	+9.9	-1.1		5600.3		+25	+1980	323,742	2,152,376	
151	2310		" "	" "	7.1	TH	+11.6	+4.5		5605.9		+30	+2310	323,746	2,152,706	
152	2640		" "	" "	7.7	TH	+13.2	+5.5		5606.9		+34	+2640	323,750	2,153,036	
153	2968		74° 52'	+14.4	19.9	TH	+14.8	-5.1		5596.3		+38	+2968	323,754	2,153,364	
154	3278		76° 32' 24"	" "	8.5	89° 40'	+19.1	+10.6		5612.3	TP	-54	+3278	323,662	2,153,674	AROUND CORNER
154	3278				8.0	270° 20'	+19.1	+11.1	+10.9		TP					
	652		268° 15' 28" -180	+14.4	13.7	92° -	+22.8	+36.5	5648.8		BS	-143	+636			
	652				+13.6	268° -	+22.8	+36.4			BS					
155	330		263° 18'	+14.4	5.9	92° -	-11.5	-17.4		5631.4		+44	-327	323,564	2,153,983	
156	0				5.2	-		-5.2		5643.6	TP	0	0	323,520	2,154,310	
157	330		74° 55'	+14.4	7.2	88° 30'	+8.6	+1.4		5650.2		+4	+330	323,524	2,154,640	

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
10-21-82		B. Cotcamp		D. Hamilton		6834		DH		4	12				
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER				
UTAH		HADREN HOLES-7 1/2		UTAH		EMERY					L.O. Davis				
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									5648.8						
TP	621		71° 48' 36"	+14.4	7.5	89°	+10.8	+3.3		5652.1	TP	+41	+620	323,561	2,154,929
TP	621				7.4	271°	+10.8	+3.4			TP				
	686		237° 52' 49" -180°	+14.4	7.5	91°	+12.0	+19.5		5671.6	BS	+209	+653		
	686				7.4	269°	+12.0	+19.4			BS				
158	653		238° 29'	+14.4	8.8	91°	-11.4	-20.2		5651.4		-192	-624	323,577	2,154,959
159	329		244° 55'	" "	10.9	91°	-5.7	-16.6		5655.0		-61	-323	323,708	2,155,259
Bm	215		255° 28' 37"	" "	6.7	91°	-3.8	-10.5		5661.1	Bm	±0	-215	323,769	2,155,368
160	0				5.2	-		-5.2		5666.4	X	0	0	323,769	2,155,583
161	330		49° 33'	+14.4	11.4	88°	+11.5	+0.1		5671.7		+145	+296	323,914	2,155,879
162	660		" "	" "	7.7	88°	+23.0	+15.3		5686.9		+290	+593	324,059	2,156,175
163	989		49° 51' 18"	" "	3.6	88°	+34.5	+30.9		5702.5	TP	+429	+890	324,199	2,156,473
163	989				3.5	272°	+34.5	+31.0			TP				
	946		249° 57' 12" -180°	+14.4	11.2	92°	+33.0	+44.2			BS	+93	+941		
	946				11.1	268°	+33.0	+44.1		5746.6	BS				ABOUND
164	632		257° 19'	+14.4	9.0	92°	-22.0	-31.0		5715.6		+19	-631	324,311	2,156,782
165	322		271° 27'	" "	6.1	92°	-11.2	-17.3		5729.3		+88	-310	324,380	2,157,104
166	0				5.2	-		-5.2		5741.4	X	0	0	324,292	2,157,414
167	329	328.0	120° 35'	+14.4	9.3	85° 30'	+25.7	+16.4		5763.0		-232	+232	324,060	2,157,646
168	658		123° 33'	" "	8.4	86°	+45.8	+37.4		5784.0		-487	+440	323,804	2,157,853

5-323,795 x=2,155,400
 USC.G.S. B.M. EL. 5661.0
 D-40 1974

CORNER

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
10-22-82		B. Cotcamp		D. Hamilton		6834		D.H.		4	13				
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER				
UTAH		HIDDEN HOLES- 7 1/2'		UTAH		Emery					L.O. Davis				
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									5746.6						
169	987	984.6	124° 18'	+14.4°	12.3	86°	+68.7	+56.4		5803.0		-740	+650	323,552	2,158,064
170	1318	1315.3	124° 26' 18"	" "	11.9	86° 20'	+84.3	+72.4		5819.0	TP	-990	+866	323,302	2,158,279
170	1318				11.8	273° 40'	+84.3	+72.5			TP				
	650		284° 27' 35" - 180	+14.4°	15.0	-		+15.0	5834.0		BS	-314	+569		Around corner
	650				11.8	84	+3.3	+15.1			BS				" "
71	329		276° 47' 29"	+14.4°	3.6	-		-3.6		5830.4					" "
171	329		276° 05'	" "	3.6	-		-3.6		5830.4		+115	-308	323,103	2,158,541
172	0				5.2	-		-5.2		5828.8	X	0	0	322,988	2,158,849
173	330		73° 48'	+14.4°	6.0	92° 30'	-14.4	-20.4		5813.6		+10	+330	322,998	2,159,178
174	612		53° 59'	" "	11.2	92° 30'	-26.7	-37.9		5796.1		+225	+568	323,213	2,159,417
TP	676		47° 42' 47"	" "	14.1	92° 30'	-29.5	-43.6		5790.4	TP	+316	+597	323,304	2,159,446
TP	676				14.0	267° 30'	-29.5	-43.5			TP				" "
	706		208° 54' 14" - 180	+14.4°	12.1	86°	-49.2	-37.1			BS	+513	+483		
	706				12.0	274°	-49.2	-37.2	5753.2		BS				
175	467		211° 15'	+14.4°	7.7	86°	+32.5	+24.8		5778.0		-326	-333	323,491	2,159,596
176	140		201° 22'	" "	7.7	86°	+9.7	+2.0		5755.2		-113	-82	323,703	2,159,847
X	0				5.2	-		-5.2		5748.0	X	0	0	323,816	2,159,929
177	198		57° 22'	+14.4°	9.1	92°	-6.9	-16.0		5737.2		+62	+188	323,878	2,160,117
178	525		56° 35'	" "	5.5	93°	-27.4	-32.9		5720.3		+222	+475	324,038	2,160,404

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
10-22-82		B. Cotcamp		D. Hamilton		6834		AHT		4	14						
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
UTAH		HADDEN HOLES-1/2		UTAH		Emery					L.O. Davis						
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
									5753.2								
179	838		40° 30' 23"	+14.4°	5.4	92° 30'	-36.6	-42.0		5711.2	TP	+481	+685	324,298	2,160,614	ACROSS	
179	838				5.3	267° 30'	-36.6	-41.9			TP					STA.	
	2037	2035.8	258° 58' 13" -180	+14.4°	14.2	88° -	-71.1	-56.9	5654.2		BS	-120	+2032				
	2037				14.0	272° -	-71.1	-57.1	57.0		BS						
180	1707		268° 47'	+14.4°	12.5	88° 16'	+51.6	+39.1		5693.3		+154	-1699	324,332	2,160,947		
181	1382		263° 58'	" "	14.5	88° 06'	+45.8	+25.3		5679.5		+201	-1367	324,379	2,161,279		
182	1064		267° 08'	" "	14.7	88° 18'	+31.5	+10.8		5665.0		+213	-1042	324,391	2,161,604		
183	747		272° 45'	" "	9.1	88° 40'	+17.4	+8.3		5662.5		+220	-714	324,398	2,161,732	LAST STA. ON ROAD	
184	421		271° 53'	" "	6.7	88° 40'	+9.8	+3.1		5657.3		+118	-404	324,296	2,162,242	CROSS COUNTRY	
185	95		258° 26'	+14.4°	6.3	86° 40'	+5.5	0.8		5653.4		+5	-95	324,183	2,162,551	" "	
X	0				5.2	-		-5.2		5649.0	X	0	0	324,178	2,162,646	" "	
186	245	223.5	120° 31'	+14.4°	13.0	114° 10'	-100.3	-113.3		5540.9		-158	+158	324,020	2,162,804	OVER CLIFF	
187	567	547.7	116° 32'	" "	6.9	105° -	-146.8	-153.7		5500.5		-359	+414	323,819	2,163,060	CROSS COUNTRY	
188	896	876.5	115° 33'	" "	7.3	100° -	-154.5	-161.8		5492.4		-563	+672	323,615	2,163,318	" "	
189	1217	1206.6	115° 01'	" "	9.1	97° 30'	-158.9	-168.0		5486.2		-766	+932	323,412	2,163,578	" "	
190	1544	1535.1	114° 39'	" "	9.0	96° 10'	-165.9	-174.9		5479.3		-967	+1192	323,211	2,163,838	" "	
191	1872	1863.9	114° 37' 02"	" "	8.3	95° 20'	-174.0	-182.3			TP	-1173	+1448	323,604	2,164,094	" "	
191	1872				8.4	264° 40'	-174.0	-182.4		5471.8	TP						
	1295		287° 50' 54" -180	+14.4°	8.7	89° -	-22.6	-13.9	5457.8		BS	-691	+1095				
	1295				8.5	271° -	-22.6	-14.1	14.0		BS						

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
10-22-82		B. Cotcamp		D. Hamilton		6834		D.H.		4	15				
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER				
UTAH		HADDEN HOLES-7 1/2'		UTAH		EMERY					L.O. Davis				
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									5457.8						
192	968		285° 51'	+14.4°	9.0	89° -	+16.9	+7.9		5465.7		+488	-836	322,801 2,164,353	CROSS COUNTRY
193	643		281° 53'	" "	8.5	89° -	+11.2	+2.7		5460.5		+285	-576	322,598 2,164,613	" "
194	1048		271° 05' 41"	" "	5.5	89° -	+18.3	+12.8		5470.6	4H	+280	-1010	322,594 2,164,179	y=322,608 x=2,164,185 Creek crossing ROAD
194	330		270° 23'	" "	6.6	89° -	+5.8	-0.8		5457.0		+84	-319	322,398 2,164,870	FIRST STA. BACK ON ROAD
195	0				5.2	-		-5.2		5452.6	X	0	0	322,314 2,165,189	
196	330		91° 36'	+14.4°	8.0	-		-8.0		5449.8		-91	+317	322,223 2,165,506	
197	660		92° 45'	" "	7.0	-		-7.0		5450.8		-195	+631	322,119 2,165,820	
198	720		92° 31' 33"	" "	5.8	-		-5.8		5452.0	4E	-210	+689	322,104 2,165,878	y=322,110 x=2,165,845 BRIDGE
198	943		84° 59'	" "	10.1	89° -	+16.5	+6.4		5464.2		-154	+930	322,160 2,166,119	AROUND 90 CORNER
199	1199		74° 01'	" "	11.3	88° 10'	+38.3	+27.0		5484.8		+33	+1198	322,347 2,166,387	" "
200	1523		72° 29' 12"	" "	0.9	88° -	+53.2	+52.3		5510.1	TP	+83	+1520	322,396 2,166,709	" "
200	1523				5.3	87° 50'	+57.6	+52.3			TP				
	1312		262° 11' 43" -180	+14.4°	10.9	90° 30'	+11.4	+22.3			BS	-151	+303		
	1312				10.8	269° 30'	+11.4	+22.2	5532.3		BS				
201	982		263° 07'	+14.4°	10.3	90° 30'	-8.6	-78.9		5513.4		+128	-974	322,374 2,167,039	
202	653		264° 57'	" "	7.0	90° 30'	-5.7	-72.7		5519.6		+106	-644	322,352 2,167,368	
203	328		270° 36'	" "	7.3	90° 30'	-2.9	-70.2		5522.1		+85	-317	322,330 2,167,695	
204	0				5.2	-		-5.2		5527.1	X	0	0	322,246 2,168,012	
205	330		95° 51'	+14.4°	7.4	-		-7.4		5524.9		-114	+310	322,131 2,168,322	
206	660		" "	" "	10.0	BH	-3.3	-73.3		5519.0		-228	+619	322,017 2,168,631	

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE	10-22-82	INSTRUMENT MAN	B. Catcamp	ROD MAN	D. Hamilton	PARTY NUMBER	6834	NOTES CHECKED BY	DLH	LINE NO.	4	PAGE	16	
AREA	UTAH	TOPO MAP	HADEN HOLES - 7 1/2	STATE	UTAH	COUNTY	EMERY	TWP		RANGE		PPM	PARTY MANAGER	L.O. Davis

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
									5532.3					
207	990		95° 51'	+14.4°	8.3	BH	-5.0	-13.3		5519.0		-343	+929	321,903 2,168,941
208	1320		" "	" "	12.6	-		-12.6		5519.7		-457	+1238	321,789 2,169,251
209	1650		95° 44' 37"	" "	8.9	-		-8.9		5523.4	TP	-568	+1549	321,677 2,169,561
209	1650				0.6	BH	-8.3	-8.9			TP			
	989		273° 50' 28" -180	+14.4°	14.0	87° 10'	-48.9	-34.9			BS	-309	+938	
	989				13.9	272° 50'	-48.9	35.0	5488.4		BS			
210	660	659.0	273° 51'	+14.4°	7.0	86° 50'	+36.4	+29.4		5517.8		+206	-626	321,575 2,169,874
211	330		274° 54'	" "	8.9	86° 50'	+18.2	+9.3		5497.7		+109	-311	321,477 2,170,189
212	0				5.2	-		-5.2		5483.2	X	0	0	321,368 2,170,500
213	330		96° 32'	+14.4°	6.2	TH	+1.7	-4.5		5483.9		-118	+308	321,250 2,170,808
Bm	441		99° 34' 37"	" "	3.3	-		-3.3		5485.1	Bm	-179	+403	321,189 2,170,902
Bm	441				5.8	89° 40'	+2.6	-3.2			Bm			
	1147		291° 15' 48" -180	+14.4°	9.7	BH	+5.7	+15.4	5500.5		BS	-669	+932	
	1147				9.7	BH 270°	+5.7	+15.4			BS	-3	+2	
214	941		294° 46'	+14.4°	10.8	90° 40'	-10.9	-21.7		5478.8		+594	-730	321,113 2,171,100
215	612		296° 01'	" "	6.9	90° 40'	-7.1	-14.0		5486.5		+389	-73	320,907 2,171,357
216	283		299° 19'	" "	10.2	90° 40'	-3.3	-13.5		5487.0		+196	-205	320,714 2,171,625
aff.	253		293° 27' 06"	" "	10.4	90° 40'	-2.9	-13.3		5487.2	aff.	+155	-200	320,673 2,171,630
̄	0				5.2	-		-5.2		5495.3	̄	0	0	320,518 2,171,830

5-321,190 X-2170,906
 U.S.C.G.S. B.M. EL. 5485.0
 8-40 1984
 Bm HAS BEEN DISTURBED
 Horiz. CORR. y -17'
 X -44'

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
10-22-82		B. Cotcamp		D. Hamilton		6834		BC		4	17						
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER								
UTAH		HADDEN Holes-7 1/2	UTAH	EMERY					L.O. Davis								
STATION NO.	SLOPE DISTANCE	PLOTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
									5500.5								
217	41		94° 05'	+14.4	5.4	89° 10'	+0.6	-4.8		5495.7		-13	+39	320,505	2171,869		
218	368		73° 31'	"	10.1	89° 10'	+5.4	-4.7		5495.8		+13	+368	320,532	2172,198		
219	405		71° 42' 06"	"	11.5	89° 10'	+5.9	-5.6		5494.9	4h.	+28	+404	320,546	2172,234	g-320,546 x 2,172,205 th creek crossing ROAD.	
219	696		75° 51'	"	10.1	89° 10'	+10.1	0.0		5500.5		-3	+696	320,515	2172,526		
220	1024		78° 01'	"	12.1	89° 10'	+14.9	+2.8		5503.3		-43	+1023	320,475	2172,853		
221	1342		81° 54' 06"	+14.4	12.1	89° 10'	+19.5	+7.4		5507.8	TP	-147	+1334	320,368	2173,163		
221	1342				12.3	270° 50'	+19.5	+7.2	7.3		TP	-3	-1				
	656		288° 35' 18" - 180	+14.4	14.1	-	-	+14.1			BS	-357	+550				
	656			+	14.0	270°	-	+14.0	5521.8		BS	-3	-1				
222	327		289° 02'	+14.4	11.0	-	-	-11.0		5510.8		+180	-273	320,188	2173,439		
223	0				5.2	-	-	-5.2		5516.6	X	0	0	320,008	2173,712		
224	330		92° 12'	+14.4	5.5	TH	+1.7	-3.8		5518.0		-94	+316	319,915	2174,028		
225	657		94° 53' 01"	"	3.2	TH	+3.3	+0.1		5521.9	TP	-217	+620	319,788	2174,331		
225	657				11.4	89°	+11.5	+0.1			TP	-3	-1				
	792		286° 48' 52" - 180	+14.4	5.1	91° 01' 43"	+14.2	+19.3	5541.2		BS	-410	+677				
	792			+	5.1	268° 58' 25"	+14.2	+19.3			BS	-3	-1				
226	469		281° 01'	+14.4	6.3	91°	-8.2	-7.5		5526.7		+201	-424	319,576	2174,584	Around slow	
227	151		262° 09'	"	7.0	90° 10'	0.4	-7.4		5533.8		+17	-150	319,392	2174,857	CORNER	
X	0				5.2	-	-	-5.2		5536.0	X	0	0	319,374	2175,007	" "	
228	178		58° 49'	+14.4	4.0	-	-	-4.0		5537.2		+51	+170	319,426	2175,178	" "	

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
10-22-82		B. Cotcamp		D. Hamilton		6834		B.C.		4	18						
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
UTAM		Hadden Holes - 7 1/2		UTAM		Emery					L.O. Davis						
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
									5541.2								
229	501		45° 37'	+14.4	9.1	89°	+8.7	-0.4		5540.8		+250	+434	319,625	2175,441	Around	
230	826		47° 04' 29"	"	9.5	89°	+14.4	+4.9		5546.1	TP	+394	+726	319,767	2175,732	CORNER	
230	826				9.5	271°	+14.4	+4.9			TP	-2	-1				
	680		237° 09' 01" -180°	+14.4	+13.7	-		+13.7	5559.8		BS	+215	+645				
	680				+13.6	270°		+13.6			BS	-2	-1				
231	351		238° 52'	+14.4	11.0	-		-11.0		5548.8		-101	-336	319,879	2176,040		
231	329		241° 28' 46"	"	11.8	-		-11.8		5548.0	TP	-80	-319	319,900	2176,057	Around 945 454-319,626 TP CORNER X-2177,700 CREEK CROSSING 2,176,110	
232	51		197° 30'	"	4.5	-		-4.5		5555.3		-43	-27	319,937	2176,349		
X	0				5.2	-		-5.2		5554.6	X	0	0	319,980	2176,376	OFF ROAD IN CREEK BEO ACROSS FROM 232	
233	342		125° 44'	+14.4	7.0	-		-7.0		5552.8		-263	+219	319,718	2176,595		
234	670		120° 57'	"	8.8	89°	+11.7	+2.9		5562.7		-477	+471	319,503	2176,847	HADDEN HOLES - 7 1/2	
235	996		118° 00'	"	8.1	88° 50'	+20.3	+12.2		5572.0		-671	+735	319,309	2177,111	Buckhorn Reserve - 7 1/2	
TP	1103		115° 45' 54"	"	6.1	88° 50'	+22.5	+16.4		5576.2	TP	-711	+843	319,267	2177,218	↓	
TP	1103				6.1	271° 10'	+22.5	+16.4			TP	-2	-1				
	965		255° 45' 17" -180°	+14.4	+12.3	BH	+4.8	+17.1	5593.3		BS	-3	+965				
	965				+12.3	BH 270°	+4.8	+17.1			BS	-2	-1				
236	752		255° 01'	+14.4	11.6	BH	3.8	-15.4		5577.9		-8	-752	319,255	2177,430		
237	422		255° 41'	"	11.4	-		-11.4		5581.9		+1	-422	319,263	2177,760		
238	92		" "	"	6.4	-		-6.4		5586.9		0	-92	319,262	2178,090		
X	0				5.2	-		-5.2		5588.1	X	0	0	319,262	2178,182		

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
10-22-83		B. Cotcamp		D. Hamilton		6834		B.C.		4	19						
AREA		TOPO MAP		STATE		COUNTY		TWP		PARTY MANAGER							
UTAH		Berkham Reservoir-1/2		UTAH		Emery				L.O. DAVIS							
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
									5593.3								
239	237		49° 40'	+14.4	6.0	88° 30'	+6.2	+0.2		5593.5		+104	+213	319,366	2178,395	AROUND 90°	
240	548		45° 38'	"	9.0	88° 30'	+14.3	+5.3		5598.6		+274	+475	319,536	2178,656	THROUGH CORNERS	
241	858		52° 14'	"	9.3	88° 30'	+22.5	+13.2		5606.5		+340	+787	319,602	2178,969	" "	
TP	917		53° 50' 47"	"	9.1	88° 30'	+24.0	+14.9		5608.2	TP	+340	+851	319,600	2179,032	" "	
TP	917				9.0	271° 30'	+24.0	+15.0			TP	-2	-1				
	344		259° 34' 16" -180	+14.4	11.7	-		+11.7	5619.9		BS	-24	+343				
	344			+16.7	90° 10'	+1.0		+11.7			BS	-2	-1				
242	83		246° 37'	+14.4	5.0	89° 30'	+0.7	-4.3		5615.6		-13	-82	319,561	2179,292		
X	0				5.2	-		-5.2		5614.7	X	0	0	319,574	2179,374		
242	101		43° 03' 06"	+14.4	7.5	-		-7.5		5612.4	242	+54	+85	319,628	2179,459	319,625 X=2179,495 Creek crossing	
243	244		43° 28'	"	6.3	89°	+4.3	-2.0		5617.9		+130	+207	319,704	2179,581		
TP	418		47° 22' 54"	"	5.8	89°	+7.3	+1.5		5621.4	TP	+198	+368	319,720	2179,741	AROUND 90° CORNER	
TP	418				5.9	271°	+7.3	+1.4			TP	-2	-1				
	1516	1512.3	308° 29' 49" -180	+14.4	1.5	94°	+105.8	+107.3	5728.7		BS	-1206	+912				
	1516			+1.4	266°	+105.8	+107.2				BS	-2	-1				
244	1347		309° 33'	+14.4	9.1	94° 10'	-97.6	-106.7		5622.0		+1086	-791	319,648	2179,862		
245	1035		314° 37'	"	9.2	95°	-89.9	-99.1		5629.6		+884	-531	319,446	2180,122		
246	731		322° 58'	"	9.4	96° 30'	-82.2	-91.6		5637.1		+670	-280	319,232	2180,373		
247	408		329° 27'	"	8.1	98° 10'	-57.4	-65.5		5663.2		+388	-112	318,949	2180,540		
248	101		03° 36'	"	7.7	101°	-18.9	-26.6		5702.1		+94	+31	318,656	2180,683		

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
10-22-82		B. Cotcamp		D. Hamilton		6834		BC		4		20				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
UTAH		Buckhorn Reservoir-7 1/2'		UTAH		Emery								L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS		
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y	X
									5728.7							
TP	0				5.2	-		-5.2		5723.5	TP	0	0	318,562	2180,653	ON TOP OF Hill
249	252		138° 19'	+14.4	6.9	91° 30'	-6.6	13.5		5715.2		-224	+115	318,338	2180,768	NEXT TO Lone High WIRE Pole.
Bm	311		198° 09' 18"	"	2.6	91° 30'	-8.1	10.7		5718.0	Bm	-262	-167	318,300	2180,495	Bm. U.S.G.G.S EL. 5718.0
250	580		144° 48'	"	5.6	91° 30'	15.2	20.8		5707.9		-542	+206	318,020	2180,859	A-40 1934 Horiz 9'-31' CORR. 8-14
251	910		145° 42'	"	10.2	91° 30'	23.8	34.0		5694.7		-855	+310	317,706	2180,962	
252	1228		142° 20'	"	11.9	91° 20'	28.6	40.5		5688.2		-1128	+485	317,434	2181,138	
TP	1405		138° 57' 43"	"	10.3	91° 10'	28.6	38.9			TP	-1256	+630	317,309	2181,277	
TP	1405				10.2	268° 50'	28.6	38.8		5689.9	TP	+3	-6			
	1544		298° 45' 45" -180	+14.4	+0.4	89° -	-26.9	-26.5	5663.4		BS	-1056	+1126			
	1544			+0.3	271° -	-26.9	-26.6				BS	+3	-6			THROUGH a CORNER
253	1407		298° 31'	+14.4	8.7	88° 50'	+28.6	+19.9		5683.3		+958	-7030	317,214	2181,366	" "
254	1084		296° 14'	"	9.4	88° 50'	+22.1	+12.7		5676.1		+706	-822	316,962	2181,574	" "
255	763		291° 07'	"	9.3	88° 50'	+15.5	+6.2		5669.6		+443	-621	316,699	2181,776	" "
256	438		285° 57'	"	8.9	88° 50'	+8.9	0.0		5663.4		+221	-378	316,477	2182,019	" "
257	114		" "	"	6.2	87° 50'	+4.3	1.9		5661.5		+58	-98	316,313	2182,298	
TP	0				5.2	-		-5.2		5658.2	TP	0	0	316,256	2182,377	
258	214		108° 07'	+14.4	7.7	-		-7.7		5655.7		-115	+120	316,141	2182,577	AROUND CORNER
259	537		118° 55'	"	10.2	84	2.7	12.9		5650.5		-368	+391	315,888	2182,787	" "
260	679		120° 06' 59"	"	14.5	-		-14.5		5648.9	TP	-476	+484	315,786	2182,881	u-creek crossing

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10-22-82		B. Cotcamp		D. Hamilton		6834		B.C.		4		21			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		Buckhorn Reservoir-T ¹ / ₂		UTAH		Emery								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									5663.4						
260	863		122° 26'	+4.4	8.0	84	-4.3	-12.3		5651.1		-629	+590	315,626	2182,987
261	1194		122° 17'	" "	3.9	TH	+6.0	+2.1		5665.5		-269	+819	315,387	2183,216
TP	1286		120° 59' 18"	" "	4.5	TH	+6.4	+1.9			TP	-915	+903	315,343	2183,294
TP	1286				4.4	TH	+6.4	+2.0		5665.4	TP	+3	-6		
	3189		262° 08' 28" -180	+4.4	+9.3	90° 40'	+37.1	+46.4	5711.7		BS	-362	+3168		
	3189				+9.0	269° 20'	+37.1	+46.1	+46.3		BS	+3	-5		
262	2958		261° 31'	+4.4	4.8	90° 50'	-43.0	-47.8		5663.9		+305	-2942	315,288	2183,515 THROUGH a
263	2628		261° 42'	" "	5.8	91° -	-45.9	-51.7		5660.0		+279	-2613	315,262	2183,844 CORNER
264	2298		" "	" "	7.3	91° 16'	-46.8	-54.1		5657.6		+244	-2285	315,227	2184,172 " "
265	1970		" "	" "	10.0	91° 20'	-45.8	-55.8		5655.9		+209	-1958	315,192	2184,499 " "
266	1640		261° 16'	" "	9.2	91° 20'	-38.1	-47.3		5664.4		+162	-1632	315,145	2184,825 " "
267	1311		262° 04'	" "	10.0	91° 20'	-30.5	-40.5		5671.2		+148	-1302	315,131	2185,155 " "
268	987		265° 02'	" "	6.9	91° 20'	-23.0	-29.9		5681.8		+162	-973	315,145	2185,483
269	658		266° 33'	" "	9.3	91° 20'	-15.3	-24.6		5687.1		+125	-646	315,108	2185,811
270	330		268° 57'	+4.4	10.2	92° -	-11.5	-21.7		5690.0		+76	-321	315,059	2186,136
271	0				5.2	-		-5.2		5706.5	T	0	0	314,983	2186,457
272	327		113° 07'	+4.4	8.9	-		-8.9		5702.8		-799	+259	314,789	2186,716 AROUND CORNER
273	655		117° 29'	" "	11.0	-		-11.0		5700.7		-437	+488	314,546	2186,944 " "
274	984		118° 53'	" "	7.8	84	-4.9	-12.7		5699.0		-675	+716	314,309	2187,173 " "
275	1314		119° 41'	" "	6.2	84	-6.6	-12.8		5698.9		-914	+944	314,069	2187,401 " "

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE	10-25-82	INSTRUMENT MAN	B. Cotcamp	ROD MAN	B.D. Hamilton	PARTY NUMBER	6834	NOTES CHECKED BY	20. B.C.	LINE NO.	4	PAGE	22
AREA	UTAH	TOPO MAP	Buckhoen Reservoir	STATE	UTAH	COUNTY	Emery	TWP		PARTY MANAGER	L.O. Davis		

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS
												LAT.	DEP.	Y	X	
									5711.7							
276	1642		119° 56'	74.4	7.6	84	-8.2	75.8		5695.9		-1147	+1175	313,836	2,187,631	Through
277	1972		120° 11'	" "	7.3	84	-9.9	77.2		5694.5		-1384	+1405	313,599	2,187,861	Corner
278	2302		120° 24'	" "	12.5	-		-12.5		5699.2		-1622	+1633	313,361	2,188,090	" "
1P	2541		120° 17' 29"	" "	14.7	-		-14.7		5697.0	1P	-1787	+1806	313,196	2,188,263	
279	2632		120° 32'	" "	9.0	90° 10'	-7.7	76.7		5695.0		-1859	+1863	313,124	2,188,320	
280	2962		120° 31'	" "	10.0	90° 14'	72.1	22.1		5689.6		-2095	+2094	2,188,888	2,188,551	
Bm	3185		125° 42' 43"	" "	5.9	84	-15.9	-21.8			TP	-2444	+2043	312,539	2,188,499	4-312,540 x-2,188,500 Bm. U.S.C.G.S EL. 5690.0 2-39 1934
Bm	3185				12.4	269° 50'	-9.3	-21.7		5690.0	TP					
	2787		286° 27' 23" -180°	+14.2	8.4	89° 20'	-32.4	-24.0	5666.1		BS	-1421	+2397			
	2787			+	8.6	270° 40'	-32.4	-23.8	-23.9		BS					
281	2614		291° 42'	+14.2	11.9	89° 20'	+30.4	+18.5		5684.6		+1533	-2117	312,652	2,188,780	AROUND CORNER
282	2290		290° 20'	" "	11.0	89° 20'	+26.6	+15.6		5681.7		+1298	-7886	312,417	2,189,011	" "
283	1970		288° 18'	" "	7.0	89° 20'	+22.9	+15.9		5682.0		+1058	-7661	312,177	2,189,236	" "
284	1649		285° 32'	" "	9.0	89° 20'	+19.2	+10.2		5676.3		+818	-7432	311,937	2,189,466	
285	1320		" "	" "	8.2	89° 30'	+11.5	+3.3		5669.4		+655	-7146	311,774	2,189,751	
286	990		" "	+14.2	7.9	89° 30'	+8.6	+0.7		5666.8		+491	-860	311,610	2,190,038	
287	660		" "	" "	7.5	89° 30'	+5.8	-1.7		5664.4		+327	-573	311,446	2,190,324	
288	330		" "	" "	6.4	89° 30'	+2.9	-3.5		5662.6		+164	-287	311,283	2,190,611	
289	0				5.2	-		-5.2		5660.9	X	0	0	311,119	2,190,897	

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
10-25-82		B. Cotcamp		D. Hamilton		6834		B.C.		4		23				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
UTAH		Buckhorn Reservoir-7 1/2		UTAH		Emery								L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS		
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y	X
									5666.1							
290	330		105° 45'	+14.2	6.3	-		-6.3		5659.8		+165	+286	319,954	219,183	
291	660		" "	" "	7.2	-		-7.2		5658.9		-330	+572	310,790	219,469	
292	990		" "	" "	8.7	-		-8.7		5657.4		-494	+858	310,625	219,755	
293	1320		" "	" "	9.3	-		-9.3		5656.8		-659	+1144	310,460	219,204	
294	1649		104° 58'	" "	10.5	-		-10.5		5655.6		-804	+1440	310,315	219,337	AROUND CORNER
295	1977		103° 54'	+14.2	11.0	-		-11.0		5655.1		-931	+1744	310,188	219,641	" "
296	2306		103° 12'	" "	12.7	-		-12.7		5653.4		-706	+2047	310,058	219,294	" "
297	2636		102° 42'	" "	6.4	90 10'	-77	-14.1		5652.0		-1193	+2351	309,926	219,248	" "
298	2963		101° 49' 53"	" "	1.0	BH	-14.8	-15.8		5650.4	TP	-1300	+2662	309,819	219,560	
298	2963			" "	0.8	BH 270	-14.8	-15.6	-15.1		TP					
	3300		269° 27' 48" -180	+14.2	9.7	TH	-16.5	-6.8	5643.5		BS	-780	+3207			
	3300				9.4	TH 270	-16.5	-7.1	-6.9		BS					
299	2970		269° 33'	+14.2	9.0	TH	+14.9	+5.9		5649.4		+706	-2885	309,745	219,381	
300	2640		" "	" "	8.6	TH	+13.2	+4.6		5648.1		+627	-2564	309,667	219,420	
301	2310		" "	" "	9.3	TH	+11.6	+2.3		5645.8		+549	-2244	309,588	219,423	
302	1980		269° 33'	" "	9.1	TH	+9.9	+0.8		5644.3		+471	-7923	309,510	219,484	
303	1650		" "	+14.2	8.0	TH	+8.3	+0.3		5643.8		+392	-7603	309,431	219,516	
304	1320		" "	" "	7.8	TH	+6.6	7.2		5642.3		+314	-7282	309,353	219,548	
305	990		" "	" "	7.1	TH	+5.0	-2.1		5641.4		+235	-962	309,274	219,580	
306	660		" "	" "	6.8	TH	+3.3	-3.5		5640.0		+157	-641	309,196	219,612	

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
10-25-82		B. Cotcamp		D. Hamilton		6834		BC		4		24				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
UTAM		Buckhorn Reservoir-7's		UTAH		Emery								L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS
												LAT.	DEP.	Y	X	
									5643.5							
307	330		269° 33'	+14.2	5.5	TH	+1.7	3.8		5639.7		+78	-321	309,118	2196,446	
308	0				5.2	-		-5.2		5638.3	TP	0	0	309,039	2196,766	
309	330		90° 02'	" "	6.2	-		-6.2		5637.3		-81	+320	308,958	2197,086	
310	660		" "		7.7	-		-7.7		5635.8		-162	+640	308,877	2197,406	
311	743		89° 29' 18"	+14.2	6.9	-		-6.9		5636.6	TP	-176	+722	308,863	2197,488	y=308,835 x 2,197,495 FENCELINE + ROAD EL. 5635.0
311	990		90° 02'	" "	8.8	-		-8.8		5634.7		-243	+960	308,796	2197,726	
312	1320		" "	" "	9.9	-		-9.9		5633.6		-325	+1279	308,715	2198,046	
313	1650		" "	" "	11.4	-		-11.4		5632.1		-406	+1599	308,633	2198,366	
314	1980		" "	" "	12.1	-		-12.1		5631.4		-487	+1919	308,552	2198,686	
315	2310		90° 02'	" "	11.0	-		-11.0		5632.5		-568	+2239	308,471	2199,005	
316	2640		" "	" "	11.0	-		-11.0		5632.5		-649	+2559	308,390	2199,325	
317	2970		" "	+14.2	10.2	-		-10.2		5633.3		-730	+2879	308,309	2199,645	
318	3295		91° 04' 24"	" "	11.2	-		-11.2		5632.5	TP	-868	+3179	308,171	2199,945	
318	3295				10.8	-		-10.8	-11.0		TP					
	4288		282° 20' 41" -180	+14.2	3.9	89° 40'	-24.9	-21.0	5611.5		BS	-1916	+3836			
	4288			+	3.8	270° 20'	-24.9	-21.1			BS					
Sec. CORNER	4130		281° 54' 42"	" "	11.0	89° 30'	+36.0	+23.0		5634.5	Sec. CORNER	+1818	-3708	308,073	2200,073	y=308,070 x 2,200,070 Sec. CORNER EL. 5635.0
319	3960		282° 21'	" "	10.2	89° 34'	+29.9	+19.7		5631.2		+1770	-3542	308,025	2200,239	
320	3630		" "	" "	10.0	89° 34'	+27.5	+17.5		5629.0		+1622	-3247	307,877	2200,534	
321	3300		" "	" "	7.3	89° 40'	+19.2	+11.9		5623.4		+1475	-2952	307,730	2200,829	

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
10-25-82		B. Cotcamp		D. Hamilton		6834		D.H.		4	25						
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
UTAH		Buckhorn Reservoir		UTAH		Emery					L.O. Davis						
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
									5611.5								
322	2970		282° 21'	+14.2	10.2	89° 40'	+17.3	+7.1		5618.6		+1328	-2657	307,582	2201,124		
#	2941		282° 29' 59"	" "	10.5	89° 40'	+17.1	+6.6		5618.1	#	+1321	-2627	307,576	2201,154	# 5-307,590 X-2201,155 # 4 WAY INT.	
Well	2449		272° 45' 06"	" "	10.2	89° 40'	+14.3	+4.1		5615.6	Well	+714	-2343	306,969	2204,58		
323	2640		282° 21'	" "	10.0	89° 40'	+15.4	+5.4		5616.9		+1180	-2362	307,435	2201,419		
324	2310		" "	+14.2	9.0	89° 40'	+13.4	+4.4		5615.9		+1033	-2066	307,287	2201,715		
325	1980		" "	" "	8.5	89° 40'	+11.5	+3.0		5614.5		+885	-1771	307,140	2202,010		
326	1650		" "	" "	7.9	89° 40'	+9.6	+1.7		5613.2		+738	-1476	306,992	2202,305		
327	1320		282° 21'	+14.2	7.1	89° 40'	+7.7	+0.6		5612.1		+590	-7191	306,845	2202,600		
328	990		" "	" "	6.7	89° 40'	+5.8	-0.9		5610.6		+443	-886	306,697	2202,895		
329	660		" "	" "	6.0	89° 40'	+3.8	-2.2		5609.3		+295	-590	306,550	2203,191		
330	330		" "	" "	5.3	89° 40'	+1.9	-3.4		5608.1		+148	-295	306,403	2203,486		
331	0				5.2	-		-5.2		5606.3	X	0	0	306,255	2203,781		
332	330		102° 34'	+14.2	6.1	-		-6.1		5605.4		-149	+295	306,106	2204,076		
333	660		" "	" "	7.3	-		-7.3		5604.2		-297	+589	305,958	2204,370		
334	990		" "	" "	7.8	-		-7.8		5603.7		-446	+884	305,809	2204,665		
335	1311		99° 13'	" "	8.3	-		-8.3		5603.2		-521	+1203	305,734	2204,984		
336	1630		95° 45'	+14.2	9.0	-		-9.0		5602.5		-556	+7532	305,699	2205,313	Through corner	
337	1952		93° 40'	" "	10.1	-		-10.1		5601.4		-599	+7858	305,656	2205,639	" "	
338	2277		92° 01'	" "	11.4	-		-11.4		5600.1		-636	+2186	305,619	2205,967	" "	

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
10-25-82		B. Cotcamp		D. Hamilton		6834		D.H.		4		26				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
UTAH		Buckhoen Reservoir-7 1/2		Utah		Emery								L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS		
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y	X
									5611.5							
339	2604		90° 49'	+14.2	5.6	90° 10'	-7.6	-13.2		5598.3		-675	+2515	305,580	2206,296	Through corner
340	2931		89° 59'	" "	6.4	90° 10'	-8.5	-14.9		5596.6		-718	+2842	305,537	2206,623	" "
341	3258		89° 21'	" "	5.6	90° 10'	-9.5	-15.1		5596.4		-763	+3167	305,492	2206,948	" "
342	3587		88° 35'	" "	5.1	90° 10'	-10.4	-15.5		5596.0		-794	+3498	305,461	2207,279	" "
343	3905		87° 19'	" "	5.6	90° 10'	-11.4	-17.0		5594.5		-780	+3826	305,475	2207,607	" "
344	4074		86° 09' 19"	+14.2	4.2	90° 10'	-11.9	-16.1		5595.4	4th	-732	+4008	305,523	2207,789	U-305,530 x-2207,810 CREEK CROSSING ROAD
344	4209		85° 30' 37"	" "	9.7	90° 06'	-7.3	-17.0		5594.6	TP	-710	+4149	305,577	2207,928	
344	4209				9.5	269° 54'	-7.3	-16.8	16th		TP	+2	-2			
	1318		241° 50' 18" - 180	+14.2	5.0	TH	-6.6	-1.6		5593.0	BS	+318	+1279			
	1318			+	5.0	TH 270	-6.6	-1.6			BS	+2	-2			
345	989		241° 01'	+14.2	6.0	89° 40'	+5.8	0.2		5592.8		-252	+956	305,615	2208,248	
346	660		240° 06'	" "	7.8	89° 40'	+3.8	4.0		5589.0		-179	+635	305,688	2208,569	
347	330		238° 01'	" "	6.6	89° 40'	+1.9	4.7		5588.3		-101	+319	305,766	2208,890	
348	0				5.2	-	-	-5.2		5587.8	TP	0	0	305,867	2209,205	ACROSS STA.
349	330		65° 22'	+14.2	6.7	-	-	-6.7		5586.3		+60	+325	305,927	2209,529	
350	660		64° 03'	" "	7.9	90° -	-	-7.9		5585.1		+134	+646	306,001	2209,851	
TP	851		65° 47' 25"	" "	8.3	-	-	-8.3		5584.7	TP	+148	+838	306,017	2210,042	AROUND CORNER
TP	851				8.3	270° -	-	-8.3			TP	+2	-1			
	1583		297° 56' 42" - 180	+14.2	4.3	-	-	+4.3		5589.0	BS	-7062	+1174			
	1583			+	4.2	-	-	+4.2			BS	+2	-1			

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
10-26-82		B. Cotcamp		D. Hamilton		6834		D.H. [Signature]		4	27						
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
UTAH		Buckhorn Reservoir - 7 1/2		UTAH		Emery					L.O. Davis						
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
									5589.0								
351	1438		299° 01'	+14.2	6.1	-		-6.1		5582.9		+985	-1048	305,941	2210,666	AROUND 9ND	
352	1112		300° 01'	"	6.6	-		-6.6		5582.4		+775	-797	305,732	2210,417	THROUGH CORNERS	
353	784		298° 13'	"	5.0	-		-5.0		5584.0		+529	-579	305,486	2210,636	" "	
354	457		293° 35'	"	7.1	TH	+2.3	-4.8		5584.2		+280	-361	305,237	2210,853	" "	
355	136		277° 48'	+14.2	6.7	88° 40'	+3.2	-3.5		5585.5		+51	-126	305,008	2211,088	" "	
T	0				5.2	-		-5.2		5583.8	T	0	0	304,957	2211,214		
356	194		70° 36'	+14.2	5.4	-		-5.4		5583.6		+18	+193	304,974	2211,408	AROUND CORNER	
357	509		53° 27'	"	7.2	TH	+2.5	-4.7		5584.3		+194	+471	305,150	2211,685	" "	
IF	670		48° 13' 47"	"	4.4	-		-4.4		5584.6	IF	+310	+594	305,267	2211,808	Y-305,260 X-2211,820 K-T-ROAD EAST	
358	827		45° 39'	"	5.7	-		-5.7		5583.3		+45	+715	305,372	2211,930		
359	1150		40° 38'	+14.2	18.6	BH	-5.8	-24.4		5564.6		+662	-940	305,619	2212,155	DOWN IN WASHOUT	
360	1465		37° 20'	"	7.9	-		-7.9		5581.1		+911	+1147	305,968	2212,361		
IF	1629		35° 40' 59"	"	4.9	-		-4.9		5584.1	IF	+1050	+1246	306,006	2212,460	Y-306,010 X-2212,500 K-T-ROAD EAST	
361	1783		34° 19' 42"	"	2.7	-		-2.7		5586.3	TP	+1181	+1336	306,140	2212,549	Buckhorn Reservoir - 7 1/2	
361	1783				2.8	-270°		-2.8			TP	+2	+1				
	1636		206° 10' 25" - 180°	+14.2	15.1	90° 36'	+17.1	+32.2	5618.6		BS	+1246	+1060				
	1636				15.3	269° 24'	+17.1	+32.4	5618.6		BS	+2	+1				
362	1309		207° 47'	+14.2	8.5	90° 50'	-19.0	-27.5		5591.1		-973	-876	306,415	2212,733	BOB Hill Knoll - 7 1/2	
363	984		210° 33'	"	6.6	90° 50'	-14.3	-20.9		5597.7		-699	-693	306,689	2212,915	↓	
364	660		214° 14'	"	6.8	90° 50'	-9.6	-16.4		5602.2		-438	-494	306,950	2213,114		

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
10-26-82		B. Cotcamp		D. Hamilton		6834		D.H.		4		28				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
UTAM		Bob Mill Knoll - 7 1/2		UTAM		Emery								L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS
												LAT.	DEP.	Y	X	
									5618.6							
365	330		214° 14'	+14.2	6.3	90° 50'	-4.8	-11.1		5607.5		-219	-247	307,169	2213,361	
366	0				5.2	-		-5.2		5613.4	X	0	0	307,388	2213,608	
367	330		58° 08'	+14.2	12.1	89° 0'	+5.8	-6.3		5612.3		+100	+314	307,488	2213,922	
368	660		" "	" "	5.7	89° -	+11.5	+5.8		5624.4		+200	+629	307,588	2214,237	
369	990		" "	" "	9.3	89° 0'	+17.3	+8.0		5626.6		+300	+943	307,688	2214,551	
370	1320		58° 31'	" "	4.7	89° 0'	+23.0	+18.3		5636.9		+392	+1260	307,780	2214,868	
371	1649		57° 37' 53"	+14.2	3.0	89° -	+28.8	+25.8		5644.3	TP	+514	+1567	307,904	2215,174	
371	1649				3.2	271° -	+28.8	+25.6	+25.1		TP	+2	-1			
	910		231° 48' 35" - 180°	+14.2	14.7	BH	+4.6	+19.3		5663.6	BS	+370	+831			
	910				+14.7	BH 270°	+4.6	+19.3			BS	+2	-1			
372	580		231° 49'	+14.2	9.7	BH	-2.9	-12.6		5651.0		-236	-530	308,040	2215,474	
373	250		" "	" "	7.9	-		-7.9		5655.7		-102	-228	308,174	2215,776	
SEC. CORNER	135		216° 27' 52"	" "	1.1	-		-1.1		5662.5	SEC. CORN.	-86	-104	308,190	2215,900	SEC. CORNER REL. 56640
	0				5.2	-		-5.2		5658.4	X	0	0	308,276	2216,004	
374	80		69° 15'	+14.2	6.5	91° 30'	-2.1	-8.6		5655.0		+9	+79	308,285	2216,083	
375	410		" "	" "	7.7	92° 30'	-17.9	-25.6		5638.0		+47	+407	308,323	2216,411	
376	740		" "	" "	8.0	91° 0'	-12.9	-20.9		5642.7		+84	+735	308,360	2216,739	
377	1068		69° 39' 36"	" "	4.9	-		-4.9			TP	+114	+1062	308,390	2217,066	
377	1068				5.0	270° -		-5.0		5658.6	TP					

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
10-28-82		B. Cotcamp		D. Hamilton		6834		D.H.		4		29				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
UTAH		BOBNILL KNOLL-7 1/2		UTAH		EMERY								i.o. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS		
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y	X
										5658.6				308,390	2,217,066	
BS	660		249° 23' 32" - 180°	+14.0	3.9	91° 30'	+17.3	+21.2	5679.8		BS	+76	+655			
BS	660				3.9	268° 30'	+17.3	+21.2		BS	+1	+1				
378	330		249° 24'	+14.0	6.7	91° 30'	-8.6	-75.3		5664.5		-38	-328	308,429	2,217,394	
379	0				5.2	-		-5.2		5674.6	X	0	0	308,467	2,217,722	
380	330		72° 08'	+14.0	5.9	86° 30'	+20.1	+14.2		5694.0		+22	+329	308,489	2,218,051	
381	657		67° 50'	" "	18.3	86° 10'	+43.9	+25.6		5705.4		+93	+650	308,560	2,218,372	
TP	826		68° 17' 36"	" "	8.2	86° 30'	+50.4	+42.2	5721.9		TP	+111	+817	308,579	2,218,540	
TP	826				8.3	273° 30'	+50.4	+42.1		TP	+1	+1				
	1960		268° 08' 22" - 180°	+14.0	4.8	91° 30'	+51.3	+56.1	5778.1		BS	-412	+1916			
	1960				5.0	268° 30'	+51.3	+56.3		BS	+1	+1				
382	1810		269° 06'	+14.0	10.0	91° 20'	-42.1	-52.1		5726.0		+410	-1763	308,578	2,218,694	Through corner
383	1522		263° 35'	" "	8.9	91° 20'	-35.4	-44.3		5733.8		+201	-1509	308,369	2,218,948	" "
384	1195		261° 46'	" "	9.0	91° 10'	-24.3	-33.3		5744.8		+120	-1189	308,288	2,219,268	" "
385	866		262° 40'	" "	8.4	91° 10'	-17.6	-26.0		5752.1		+101	-860	308,269	2,219,597	
386	537		265° 05'	" "	10.0	91° 10'	-10.9	-20.9		5757.2		+85	-530	308,253	2,219,927	LAST STA. ON ROAD
387	209		267° 18'	" "	11.0	91° 10'	-4.3	-15.3		5762.8		+41	-205	308,209	2,220,252	CROSS COUNTRY
X	0				5.2	-		-5.2		5772.9	X	0	0	308,168	2,220,457	" "
388	121		85° 53'	+14.0	6.6	100° 20'	-21.7	-28.3		5749.8		-21	+119	308,147	2,220,576	" "
389	447		87° 27'	" "	5.9	92° -	-15.6	-21.5		5756.6		-89	+438	308,079	2,220,895	" "

SURVEY NOTES-HIGH RESOLUTION DATA

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Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
10-28-82		B. Cotcamp		B.D. Hamilton		6834		D.H.		4		30				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
UTAH		BOB Hill Knoll-7 1/2		UTAH		Emery								L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS		
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y	X
									5778.1							
390	774		86° 42'	+14.0	18.6	91° 40'	-22.5	-41.1		5737.0		-144	+761	308,024	2,221,218	CROSS COUNTRY
391	1102		87° 11'	" "	7.0	91° 10'	-22.4	-29.4		5748.7		-214	+1081	307,954	2,221,538	" "
392	1430		86° 14' 23"	" "	5.8	90° 40'	-16.6	-22.4			TP	-254	+1407	307,915	2,221,865	" "
392	1430				5.9	269° 20'	-16.6	-22.5		5755.6	TP					
	1211		262° 34' 49" -186	+14.0	7.4	90° 40'	+14.1	+21.5	5777.1		BS	-139	+1203			CROSS COUNTRY
	1211				7.5	269° 20'	+14.1	+21.6			BS					" "
393	905		266° 51'	+14.0	8.0	95° 20'	-84.8	-92.7		5685.0		+170	-889	307,947	2,222,180	" "
394	593		275° 18'	" "	9.2	93° 20'	-34.4	-43.6		5733.5		+196	-560	307,973	2,222,509	BACK ON ROAD
395	284		289° 19'	" "	7.4	93° 20'	-16.5	-23.9		5753.2		+156	-237	307,933	2,222,832	AROUND & THROUGH
X	0				5.2	-		-5.2		5771.9	X	0	0	307,777	2,223,069	CORNER
396	37		142° 43'	+14.0	5.5	86° 20'	+2.4	3.1		5774.0		-34	+15	307,743	2,223,084	" "
397	366		135° 20'	" "	5.4	86° 30'	+22.3	+16.9		5794.0		-315	+187	307,462	2,223,256	" "
398	654		152° 15'	" "	11.0	86° 30'	+39.8	+28.8		5805.9		-635	+155	307,142	2,223,224	" "
399	982		152° 34' 49"	" "	10.7	87° 10'	+48.5	+37.8		5814.9	TP	-954	+228	306,824	2,223,297	
399	982				10.6	272° 50'	+48.5	+37.9			TP					
	424		320° 30' 21" -186	+14.0	13.9	-		+13.9	5828.8		BS	-383	+183			AROUND
	424				13.9	270°		+13.9			BS					CORNER
400	101		303° 48'	+14.0	6.8	-		-6.8		5822.0		+75	-68	306,517	2,223,412	
401 X	0				5.2	-		-5.2		5823.6	X	0	0	306,442	2,223,480	
X	71		98° 45' 06"	+14.0	4.4	-		-4.4		5824.4	X	-27	+65	306,415	2,223,545	306,400 x 2,223,576 1/2 T-ROD SOUTH

SURVEY NOTES-HIGH RESOLUTION DATA

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Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10-28-82		B. Cotcamp		D. Hamilton		6834		D.H.		20		31			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		Bob Mill Kroll - 7 1/2'		UTAH		Emery								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTting DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									5828.8						
401	230		101° 17'	+14.0	6.9	88° 40'	+5.3	-1.6		5827.2		-98	+208	306,344	2223,688
402	560		99° 28' 24"	" "	5.0	88° 40'	+13.0	+8.0		5836.8	TP	-223	+514	306,219	2223,994
402	560				5.0	271° 20'	+13.0	+8.0			TP				
	3621		272° 22' 29" - 180	+14.0	11.0	91° 20'	+84.3	+95.3	5932.2		BS	-1021	+3473		Through a corner
	3621			+	11.3	268° 40'	+84.3	+95.6	+95.4		BS				" "
403	3295		271° 39'	+14.0	10.9	91° 20'	-76.6	-87.5		5844.7		+889	-3173	306,087	2224,299
404	2967		270° 54'	" "	9.3	91° 20'	-69.0	-78.3		5853.9		+762	-2867	305,960	2224,600
405	2636		270° 59'	" "	9.1	91° 20'	-61.3	-70.4		5861.8		+682	-2546	305,880	2224,921
406	2307		271° 25'	" "	10.9	91° 20'	-53.7	-64.6		5867.6		+613	-2224	305,811	2225,243
407	1978		271° 50'	" "	11.0	91° 20'	-46.0	-57.0		5875.2		+540	-1903	305,738	2225,564
408	1650		272° 11'	" "	10.7	91° 20'	-38.4	-49.1		5883.1		+460	-1585	305,658	2225,882
BM	1678		272° 24' 02"	" "	10.3	91° 20'	-39.0	-49.3		5882.9	BM	+474	-1609	305,622	2225,858
409	1320		272° 11'	+14.0	10.1	91° 30'	-34.5	-44.6		5887.6		+368	-1268	305,566	2226,199
410	990		" "	" "	8.2	91° 30'	-25.9	-34.1		5898.1		+276	-951	305,474	2226,915
411	660		" "	" "	9.3	91° 30'	-17.3	-26.6		5905.6		+184	-634	305,382	2226,830
BM	657		270° 15' 53"	" "	8.8	91° 30'	-17.2	-26.0		5906.2	BM	+162	-637	305,360	2226,830
412	330		272° 11'	" "	6.2	91° 30'	-8.6	-14.8		5917.4		+92	-317	305,290	2227,150
413	0				5.2	-	-	-5.2		5927.0	X	0	0	305,198	2227,467
414	330		92° 40'	+14.0	5.2	88° 30'	+8.6	+3.4		5935.6		-95	+316	305,103	2227,783
415	660		" "	" "	7.1	88° 30'	+17.3	+10.2		5942.4		-189	+632	305,009	2228,099

y-305,665 x-2225,880
 T-RO SOUTH
 y-305,360 x-2226,830
 U.S.C.G.S. BM EL 5906
 V-39 1934 HORIZ y-+7'
 CORE x-25'

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10-28-82		B. Cotcamp		D. Hamilton		6834		D.H.		4		32			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Utah		Bob Hill Knob		Utah		Emery								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									5932.2						
416	990		92° 40'	+14.0	9.3	88° 30'	+25.9	+16.6		5948.8		-284	+948	304,914	2228,415
417	1320		" "	" "	7.1	88° 30'	+34.5	+27.4		5959.6		-379	+1265	304,819	2228,732
418	1649		" "	" "	7.9	88° 30'	+43.2	+35.3		5967.5		-473	+1580	304,725	2229,047
419	1979		92° 28'	" "	8.2	88° 30'	+51.8	+43.6		5975.8		-561	+1898	304,637	2229,365
420	2309		92° 19'	+14.0	11.0	88° 30'	+60.4	+49.4		5981.6		-649	+2216	304,549	2229,683
421	2639		92° 17'	" "	9.5	88° 36'	+64.4	+54.9		5987.1		-740	+2533	304,458	2230,000
422	2968		92° 10'	" "	12.7	88° 36'	+72.5	+59.8		5992.0		-826	+2851	304,372	2230,318
423	3299		92° 02' 18"	+13.8	14.9	88° 36' 17"	+80.3	+65.4			TP	-900	+3173	304,300	2230,639
423	3299				14.9	271 23 32	+80.2	+65.3		5997.5	TP	+2	-1		
	660		270° 43' 42" -180	+13.8	9.5	91° 30'	+17.3	+26.8	6024.3		BS	-166	+639		
	660				9.6	268° 30'	+17.3	+26.9			BS				
424	330		270° 44'	+13.8	6.7	91° -	-5.8	-12.5		6011.8		+83	-319	304,220	2230,958
425	0				5.2	-	-	-5.2		6019.1	TP	0	0	304,137	2231,277
426	330		88° 54'	+13.8	6.5	89° -	+5.8	-0.7		6023.6		-73	+322	304,064	2231,599
427	660		" "	" "	5.3	89° -	+11.5	+6.2		6030.5		-145	+644	303,992	2231,921
428	990		88° 54' 12"	" "	8.7	89° -	+17.3	+8.6			TP	-218	+966	303,922	2232,242
428	990				8.8	271 -	+17.3	+8.5		6032.8	TP	+3	-1		
	2308		266° 39' 28" -180	+13.8	6.8	90° 50'	+33.6	+40.4	6073.1		BS	-419	+2269		
	2308				6.6	269° 10'	+33.6	+40.2	+40.3		BS	+3	-1		

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10-29-82		B. Cotcamp		D. Hamilton		6834		D.H.		4		33			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		Bob Hill Knoll - 1/2		UTAH		Emery								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									6073.1						
429	1978		266° 18'	+13.8°	6.2	90° 50'	-28.8	-35.0		6038.1		+347	-1947	303,853	2,232,563
430	1649		265° 58'	" "	9.2	90° 50'	-24.0	-33.2		6039.9		+280	-1625	303,786	2,232,885
431	1320		265° 43'	" "	6.8	90° 50'	-19.2	-26.0		6047.1		+218	-1302	303,724	2,233,208
432	990		" "	" "	9.1	90° 50'	-14.4	-23.5		6049.6		+164	-976	303,670	2,233,534
433	660		" "	" "	7.5	90° 50'	-9.6	-17.1		6056.0		+109	-651	303,615	2,233,859
434	330		" "	" "	5.4	90° 50'	-4.8	-10.2		6062.9		+55	-325	303,561	2,234,185
435	0				5.2	-	-	-5.2		6067.9	TP	0	0	303,506	2,234,510
436	330		85° 06'	+13.8°	6.2	89° -	+5.8	-0.4		6072.7		-51	+326	303,455	2,234,836
437	659		80° 04'	" "	5.0	89° -	+11.5	+6.5		6079.6		-44	+658	303,462	2,235,168
438	981		74° 45'	" "	7.2	89° -	+17.1	+9.9		6083.0		+25	+981	303,531	2,235,491
439	1307		71° 58'	" "	7.8	89° -	+22.8	+15.0		6088.1		+96	+1303	303,602	2,235,813
440	1634		70° 30'	" "	6.4	89° -	+28.5	+22.1		6095.2		+162	+1626	303,668	2,236,136
441	1963		69° 56'	" "	6.9	89° -	+34.3	+27.4		6100.5		+214	+1951	303,720	2,236,461
442	2291		78° 59' 48"	" "	7.4	89° -	+40.0	+32.6		6105.8	TP	+208	+2281	303,717	2,236,790
442	2291				7.2	276° +	+40.0	+32.8	+32.7		TP	+3			
	1961		242° 20' 36" -180	+13.8°	5.9	91° -	+34.2	+40.1	+40.0	6145.8	BS	-1156	+1583		
	1961				5.6	269° -	+34.2	+39.8			BS	+3	-1		
Bm	1668		294° 11' 29"	+13.8°	6.7	91° -	-29.1	-35.8		6110.0	Bm	+1027	-1314	303,591	2,237,058
443	1644		295° 27'	" "	7.3	91° -	-28.7	-36.0		6109.8		+1040	-1273	303,604	2,237,099

4-303,600 X-2,237,075
 U.S.C.G.S Bm EL. 6110.0
 U. 39 1934

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10-29-82		B. Cotcamp		D. Hamilton		6834		D.H.		4		34			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH				UTAH		Emery								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTting DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									6145.8						
444	1318		297° 04'	+13.8°	7.2	91° -	-23.0	-30.2		6115.6		+862	-997	303,426	2,237,375
445	989		297° 51'	" "	8.0	91° -	-17.3	-25.3		6120.5		+657	-739	303,221	2,237,633
446	659		298° 51'	" "	7.8	91° -	-11.5	-19.3		6126.5		+446	-485	303,010	2,237,887
447	330		300° 43'	" "	5.8	91° -	-5.8	-11.6		6134.2		+231	-235	302,795	2,238,137
448	0				5.2	-		-5.2		6140.6	TP	0	0	302,564	2,238,372
449	330		118° 28'	+13.8°	7.5	88° 30'	+8.6	+1.1		6146.9		-222	+244	302,342	2,238,616
450	655		111° 26'	" "	7.6	89° -	+11.4	+3.8		6149.6		-378	+535	302,168	2,238,907
451	983		109° 01'	" "	10.0	89° -	+17.2	+7.2		6153.0		-533	+826	302,031	2,239,198
452	1309		106° 50'	" "	8.4	89° -	+22.8	+14.4		6160.2		-667	+1126	301,897	2,239,498
453	1629		103° 10'	" "	9.1	89° -	+28.4	+19.3		6165.1		-739	+1452	301,825	2,239,824
454	1948		100° 49' 23"	+13.8°	11.3	89° -	+34.0	+22.7		6168.6	TP	-812	+1771	301,755	2,240,142
454	1948				11.0	271° -	+34.0	+23.0	+22.8		TP	+3	-1		
	2133		260° 27' 00" - 180	+13.8°	10.1	90° 50'	+31.0	+41.1	+22.8	6209.5	BS	-158	+2127		
	2133			+9.8	269° 10'	+31.0	+40.8	+40.8	+40.8		BS	+3	-1		
455	1806		259° 20'	+13.8°	5.2	91° -	-31.5	-36.7		6172.8		+99	-1803	301,699	2,240,465
456	1475		259° 16'	" "	5.9	91° -	-25.7	-31.6		6177.9		+76	-1473	301,676	2,240,795
457	1145		259° 01'	" "	6.7	91° -	-20.0	-26.7		6182.8		+56	-1144	301,656	2,241,124
458	815		" "	" "	7.0	91° -	-14.2	-21.2		6188.3		+40	-814	301,640	2,241,454
459	485		" "	" "	6.8	91° -	-8.5	-15.3		6194.2		+24	-484	301,624	2,241,784
460	155		257° 42'	" "	6.7	91° -	-2.7	-9.4		6200.1		+4	-155	301,604	2,242,113

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10-29-82		B. Cotcamp		D. Hamilton		6834		D.H.		4		35			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH				UTAH		Emery								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									6209.5						
π	0				5.2	-		-5.2		6204.3	π	0	0	301,600	2,242,268
461	174		83° 33'	+13.8°	5.6	89° -	+3.0	-2.6		6206.9		-22	+173	301,578	2,242,441
462	503		85° 41'	" "	10.3	89° -	+8.8	+1.5		6211.0		-83	+496	301,517	2,242,764
463	831		88° 41'	" "	11.2	89° 10'	+12.1	-0.9		6208.6		-180	+811	301,420	2,243,079
464	1156		91° 33'	" "	9.2	89° 10'	+16.8	+7.6		6217.1		-366	+1115	301,294	2,243,383
465	1482		93° 49' 43"	" "	7.9	89° 20'	+17.2	+9.3		6218.8	TP	-449	+1412	301,154	2,243,679
465	1482				7.8	270° 40'	+17.2	+9.4			TP	+3	-1		
	1320		282° 24' 29" -180°	+13.8°	9.1	89° -	-23.0	-73.9	6204.8		BS	-583	+1184		
	1320				8.9	271° -	-23.0	-74.1	-14.0		BS	+3			
465	1515		282° 48' 01"	+13.8°	11.8	89° -	+26.4	+14.6		6219.4	π	+678	-1354	301,252	2,243,509
466	990		281° 40'	" "	5.2	89° 20'	+11.5	+6.3		6211.1		+426	-894	310,000	2,243,969
467	660		" "	" "	7.0	89° 20'	+7.7	+0.7		6205.5		+284	-596	300,858	2,244,267
468	330		" "	" "	7.5	89° 20'	+3.8	-3.7		6201.1		+142	-298	300,716	2,244,365
469	0				5.2	-		-5.2		6199.6	π	0	0	300,574	2,244,863
470	330		101° 27'	+13.8°	9.5	89° 20'	+3.8	-5.7		6199.1		-141	+298	300,433	2,245,161
471	660		" "	" "	11.7	89° 20'	+7.7	-4.0		6200.8		-282	+597	300,292	2,245,460
472	990		" "	" "	13.0	89° 30'	+8.6	-4.4		6200.4		-422	+895	300,152	2,245,758
473	1320		" "	" "	10.5	89° 30'	+11.5	+1.0		6205.8		-563	+1194	300,011	2,246,057
473	1366		101° 16' 17"	" "	8.6	89° 30'	+11.9	+3.3		6208.1	-π	-579	+1237	299,995	2,246,100

4-301,250 X-2,245,505
T-20 SOUTH

4-299,995 X-2,246,100
FENCELINE + ROAD 1
HORIZ CORR. 8-+29
X-9

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE 10-29-82	INSTRUMENT MAN B. Cotcamp	ROD MAN D. Hamilton	PARTY NUMBER 6834	NOTES CHECKED BY pik	LINE NO. 4	PAGE 36
AREA UTAH	TOPO MAP BOB HILL Knoll-7 1/2'	STATE UTAH	COUNTY Emery	TWP	RANGE	PPM
				PARTY MANAGER L.O. Davis		

STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -		EAST + WEST -		COORDINATES		REMARKS
												LAT.	DEP.	Y	X			
									6204.8									
474	1648		102° 49' 58"	+13.6	9.0	89° 30'	+14.4	+5.4	6210.3	6210.3	TP	-734	+1476	299,840	2,246,339			
474	1648				8.7	270° 30'	+14.4	+5.7										+5.5
	1311		310° 33' 14" -180	" "	4.9	TH	-6.6	-1.7	6208.4	6208.4	BS	-1063	+768					
	1311				4.6	TH 270	-6.6	-2.0										-1.9
475	987		312° 45'	+13.6	8.5	TH	+4.9	-3.6		6204.8		+822	-547	299,599	2,246,560			
476	657		312° 28'	" "	8.9	TH	+3.3	-5.6		6202.8		+545	-367	299,322	2,246,740			
477	329		308° 13'	" "	6.6	TH	+1.6	-5.0		6203.4		+259	-203	299,036	2,246,904			
478	0				5.2	-		-5.2		6203.2	X	0	0	298,777	2,247,107			
479	330		119° 09'	+13.6	11.1	-		-11.1		6197.3		-224	+242	298,553	2,247,349			
480	657		114° 01'	" "	5.8	91°	-11.5	-17.3		6191.1		-401	+520	298,376	2,247,627			
481	980		109° 01'	" "	6.9	90° 50'	-14.2	-21.1		6187.3		-528	+825	298,249	2,247,932	Bob Hill Knoll 7 1/2'		
482	1300		103° 05'	" "	6.8	90° 50'	-18.9	-25.7		6182.7		-584	+1162	298,193	2,248,269	Chimney Rock 7 1/2'		
TP	1472		100° 43' 43"	" "	3.8	91°	-25.7	-29.5	6179.0	6179.0	TP	-606	+1341	298,171	2,248,448			
TP	1472				3.6	269°	-25.7	-29.3										-29.4
BS	2057		230° 13' 29" -180	+13.6	11.1	89°	-35.9	-24.8	6154.1	6154.1	BS	+907	+1846					
BS	2057				10.9	211°	-35.9	-25.0										-24.9
483	1934		228° 30'	" "	10.3	89°	+33.7	+23.4		6177.5		-905	-1709	298,173	2,248,585			
484	1808		227° 09' 01"	" "	10.4	89°	+31.5	+21.1		6175.2	48	-883	-1577	298,195	2,248,717	Y-298,190 x-2,248,745 4-ROAD SOUTH EL-61810		
484	1626		224° 34'	" "	14.6	88° 50'	+33.1	+18.5		6172.6		-858	-1381	298,220	2,248,913			

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10-29-82		B. Cotcamp		D. Hamilton		6834		B.C. AD		4		37			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAM		Chimney Rock-7 1/2'		UTAH		Emery								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									6154.1						
485	1312		220° 42'	+13.6°	9.8	89° -	+22.9	+13.1		6167.2		-766	-1065	298,312	2,249,229
486	989		217° 28'	" "	8.9	89° -	+17.3	+8.4		6162.5		-622	-769	298,456	2,249,525
487	660		217° 14'	" "	6.6	89° -	+11.5	+4.9		6159.0		-417	-512	298,661	2,249,782
488	330		" "	" "	8.7	88° -	+11.5	+2.8		6156.9		-208	-256	298,870	2,250,038
489	0				5.2	-	-5.2			6148.9	X	0	0	299,078	2,250,294
490	330		36° 59'	+13.6°	5.4	91° -	-5.8	-11.2		6142.9		+210	+255	299,288	2,250,549
491	660		" "	" "	4.2	91° -	-11.5	-15.7		6138.4		+419	+510	299,497	2,250,804
492	990		" "	" "	3.7	91° -	-17.3	-21.0		6133.1		+629	+765	299,707	2,251,059
493	1320		" "	" "	4.0	91° -	-23.0	-27.0		6127.1		+838	+1020	299,916	2,251,314
494	1650		" "	" "	5.1	91° -	-28.8	-33.9		6120.2		+1048	+1275	300,126	2,251,569
495	1980		" "	" "	8.7	90° 50'	-28.8	-37.5		6116.6		+1257	+1530	300,325	2,251,824
Bm	2100		35° 39' 41"	" "	5.5	90° 50'	-30.5	-36.0		6118.1	TP	+1370	+1591	300,448	2,251,885
Bm	2100			" "	5.4	269° 10'	-30.5	-35.9			TP				
	1214		232° 00' 54" - 180°	+13.6°	12.2	89° -	-21.2	-9.0	6109.1		BS	+501	+1106		
	1214				+12.2	271° -	-21.2	-9.0			BS				
496	990		230° 20'	+13.6°	11.8	89° -	+17.3	+5.5		6114.6		-435	-889	300,514	2,252,102
497	660		" "	" "	10.5	89° -	+11.5	+1.0		6110.1		-290	-593	300,659	2,252,398
498	330		" "	" "	6.8	89° -	+5.8	-1.0		6108.1		-145	-296	300,804	2,252,695
499	0				5.2	-	-5.2			6103.9	X	0	0	300,949	2,252,991

U.S. DEPT. OF INTERIOR EL. 61170
U.S.G.S. Bm 22-FM 1969

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
10-29-82		B. Cotcamp		D. Hamilton		6834		B.C.		4		38			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		Chimney Rock-7 1/2		UTAH		Emery								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									6109.1						
500	329		55° 40'	+13.6	8.4	91° -	-5.7	-14.1		6095.0		+116	+308	301,065	2,253,299
501	645		64° 41'	" "	5.3	91° -	-11.3	-16.6		6092.5		+131	+632	301,080	2,253,623
502	966		69° 18'	" "	5.2	91° -	-16.9	-22.1		6087.0		+119	+959	301,068	2,253,950
TP	1114		69° 23' 17"	" "	4.3	90° 50'	-16.2	-20.5		6088.6	TP	+136	+1106	301,085	2,254,091
TP	1114				4.2	269° 10'	-16.2	-20.4			TP				
	2158		209° 08' 37"	+13.6	11.6	88° 40'	-50.2	-38.6	6050.0		BS	+1584	+1464		
	2158				11.7	271° 20'	-50.2	-38.5			BS				
503	1978		207° 37'	+13.6	9.1	88° 50'	+40.3	+31.2		6081.2		-1488	-1303	301,081	2,254,258
504	1650		206° 17'	" "	9.8	88° 50'	+33.6	+23.8		6073.8		-1266	-1058	301,403	2,254,503
505	1320		" "	" "	9.9	88° 50'	+26.9	+17.0		6067.0		-1013	-846	301,656	2,254,715
506	990		" "	" "	8.3	88° 50'	+20.2	+11.9		6061.9		-760	-635	301,909	2,254,926
507	660		" "	" "	6.2	88° 50'	+13.4	+7.2		6057.2		-506	-423	302,163	2,255,138
508	330		" "	" "	4.7	88° 50'	+6.7	+2.0		6052.0		-253	-212	302,416	2,255,349
509	0				5.2	-	-	-5.2		6044.8	T	0	0	302,669	2,255,561
510	330		26° 28'	+13.6	5.7	91° -	-5.8	-11.5		6038.5		+253	+212	302,922	2,255,773
511	660		" "	" "	7.3	91° -	-11.5	-18.8		6031.2		+505	+425	303,174	2,255,986
512	990		" "	" "	10.2	91° -	-17.3	-27.5		6022.5		+758	+637	303,427	2,255,198
Bm	1230		31° 47' 31"	" "	9.4	91° -	-21.5	-30.9		6019.1	TP	+864	+876	303,533	2,256,437
Bm	1230				9.3	269° -	-21.5	-30.8			TP				

4-303,510 x-2254720
 U.S.G.S. Bm EL. 6091.0
 23-Emk 1969

FIELD NOTES-HIGH RESOLUTION DATA

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE			
11-2-82		B. Cotcamp		D. Hamilton		6834		D.H.		4	39			
STATE		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER			
UTAH		Chimney Rock-7 1/2		UTAH		Emery					L.O. Davis			
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
									6019.1				303,533	
	1373		231° 41' 12" -180	+13.4°	12.4	88° 40'	-31.9	-19.5			BS	+578	+1245	
	1373			+	12.3	271° 20'	-31.9	-19.6	5999.5		BS			
513	1317		235° 07'	+13.4°	9.0 ^{high}	88° 24'	+36.8	+17.8		6017.3		-482	-1226	303,628 2,256,456
514	989		234° 29'	" "	9.4 ^{high}	88° 20'	+28.8	+15.4		6014.9		-372	-916	303,738 2,256,766 AROUND SLOW
515	660		231° 54'	" "	7.1	88° 40'	+15.4	+8.3		6007.8		-276	-600	303,834 2,257,082 CORNER
516	330		229° 48'	" "	5.9	88° 40'	+7.7	+1.8		6001.3		-149	-295	303,961 2,257,387 " "
517	0				5.2	-		-5.2		5994.3	T	0	0	304,110 2,257,682 " "
518	329		44° 12'	+13.4°	6.7	91° -	-5.7	-12.4		5987.1		+176	+278	304,286 2,257,960 " "
519	657		39° 45'	" "	6.1	91° -	-11.5	-17.6		5981.9		+394	+526	304,507 2,258,208 " "
520	984		36° 03'	" "	5.8	91° -	-17.2	-23.0		5976.5		+640	+748	304,750 2,258,430 " "
521	1309		33° 27' 29"	" "	7.9	91° -	-22.8	-30.7		5968.8	TP	+895	+955	305,004 2,258,637
521	1309				7.8	269° -	-22.8	-30.6			TP			
	998		203° 10' 24" -180	+13.4°	1.9	89° -	-17.4	-15.5			BS	+801	+595	
	998			+	1.8	274° -	-17.4	-15.6	5953.2		BS			
522	669		202° 14'	+13.4°	7.0	88° 40'	+15.6	+8.6		5961.8		-544	-390	305,260 2,258,842
523	340		198° 35'	" "	9.7	88° 40'	+7.9	-1.8		5951.4		-288	-180	305,516 2,259,052
524	59		124° 23'	" "	4.7	88° 40'	+1.4	-3.3		5949.9		-44	+40	305,760 2,259,272
T	0				5.2	-		-5.2		5948.0	T	0	0	305,804 2,259,232 OFF ROAD ACROSS FROM 524
525	338		47° 46'	+13.4°	5.2	88° 40'	+7.9	+2.7		5955.9		+163	+296	305,967 2,259,528

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
11-2-82		B. Cotcamp		D. Hamilton		6834		A.H.		4	40						
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
UTAM		Chimney Rock- 7 1/2'		UTAM		Emery					L.O. Davis						
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH +	EAST +	COORDINATES		REMARKS	
												SOUTH -	WEST -	Y	X		
									5953.2								
526	667		46° 41' 11"	+13.4°	8.7	89° -	+11.6	+2.9		5956.1	TP	+333	+578	306,136	2,259,810	ACROSS STATION	
526	667				8.7	271° -	+11.6	+2.9			TP						
	1980		236° 45' 12" -180	+13.4°	8.8	89° -	-34.6	-25.8	5930.2		BS	+672	+1862				
	1980				8.6	271° -	-34.6	-26.0	5930.2		BS						
527	1650		236° 29'	+13.4°	6.8	89° -	+28.8	+23.0		5953.2		-567	-1549	306,240	2,260,123		
528	1320		" "	" "	6.3	89° -	+23.0	+16.7		5946.9		-454	-1239	306,353	2,260,433		
529	990		" "	" "	8.3	89° -	+17.3	+9.0		5939.2		-340	-930	306,467	2,260,742		
530	660		" "	" "	6.2	89° -	+11.5	+5.3		5935.5		-227	-620	306,580	2,261,052		
531	330		" "	" "	6.4	89° -	+5.8	0.6		5929.6		-114	-310	306,693	2,261,362		
532	0				5.2	-		-5.2		5925.0	X	0	0	306,807	2,261,672		
533	330		56° 25'	+13.4°	7.0	91° -	5.8	22.8		5917.4		+114	+310	306,921	2,261,982		
534	660		" "	" "	9.8	91° -	11.5	21.3		5908.9		+228	+619	307,035	2,262,291		
535	987		58° 12'	" "	8.5	91° -	17.2	25.7		5904.5		+312	+937	307,119	2,262,609	AROUND + THROUGH	
536	1303		62° 50'	" "	11.8	90° 30'	11.4	23.2		5907.0		+310	+1266	307,117	2,262,938	CORNER	
537	1632		63° 01' 06"	" "	3.5	90° 30'	-14.2	-17.7		5912.5	TP	+383	+1586	307,189	2,263,258	" " " "	
537	1632				3.4	269° 30'	-14.2	-17.6			TP						
	1319		240° 22' 23" -180	+13.4°	5.5	88° 50'	-26.9	-21.4			BS	+369	+1266				
	1319				5.4	271° 10'	-26.9	-21.5	5891.0		BS						
538	990		240° 22'	+13.4°	7.3	89° -	+17.3	+10.0		5901.0		-277	-951	307,280	2,263,573		
IF	886		240° 42' 23"	" "	5.2	89° -	+15.5	+10.3		5901.3	IF	-243	-852	307,314	2,263,672		

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
11-2-82		B. Cotcamp		D. Hamilton		6834		D.H.		4	41				
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER				
UTAH		Chimney Rock-7 1/2		UTAH		Emery					L.O. Davis				
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									5891.0						
539	660		240° 22'	+13.4°	9.9	88° 30'	+17.3	+7.4		5898.4		-185	-634	307,372	2,263,890
540	330		" "	" "	9.3	88° 30'	+8.6	0.7		5890.3		-92	-317	307,465	2,264,207
541	0				5.2	-		-5.2		5885.8	TP	0	0	307,557	2,264,524
542	330		60° 06'	+13.4°	5.4	89° 30'	+2.9	-2.5		5888.5		+94	+316	307,651	2,264,840
543	660		" "	" "	8.0	-		-8.0		5883.0		+187	+633	307,744	2,265,157
TP	749		57° 28' 12"	" "	12.1	-		-12.1		5878.9	TP	+245	+708	307,801	2,265,232
TP	749				12.0	270°		-12.0			TP				
	893		257° 27' 56" -180°	+13.4°	6.9	86° 40'	-51.9	-45.0	5833.9		BS	-13	+891		
	893				+6.9	273° 20'	-51.9	-45.0			BS	-1			
544	651		260° 15'	+13.4°	11.4	87°	+34.0	+22.6		5856.5		+41	-650	307,828	2,265,473
545	330		254° 42'	" "	9.1	87°	+17.2	+8.1		5842.0		-11	-330	307,776	2,265,793
546	0				5.2	-		-5.2		5828.7	TP	0	0	307,787	2,266,123
547	329		60° 54'	+13.4°	7.2	93° 30'	20.0	27.2		5806.7		+89	+317	307,876	2,266,440
Bm	844 574		66° 02' 37"	" "	8.7	92°	-20.0	-28.7		5805.2	Bm	+105	+564	307,892	2,266,687
548	619		79° 16'	" "	10.2	92° 10'	23.4	33.6		5800.3		-29	+618	307,758	2,266,741
TP	656		82° 52' 35"	" "	10.8	92°	-22.9	-33.7		5800.2	TP	-72	+652	307,714	2,266,776
TP	656				10.8	268°	-22.9	-33.7			TP	-1	"		
	238		293° 22' 01" -180°	+13.4°	5.2	89°	-4.2	+1.0	5801.2		BS	-142	+191		
	238				+4.6	89° 10'	-3.5	+1.1			BS	-1			
549	0				5.2	-		-5.2		5796.0	TP	0	0	307,571	2,266,968

y=307,895 x=2,266,665
 Bm. 4. S.G.S. EL. 5805.0
 Arrow 90 corner 25 PMK 1969

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
11-2-82		B. Cotcamp		D. Hamilton		6834		D.H.		4	42				
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER				
UTAH		Chimney Rock-7 1/2		UTAH		EMERY					L.O. Davis				
STATION NO.	SLOPE DISTANCE	PLOTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									5801.2						
549	39		63° 37'	+13.4	4.7	89°	+0.7	-4.0		5797.2		+9	+38	307,580	2,267,006
550	369		69° 45'	" "	6.5	-		-6.5		5794.7		+44	+366	307,615	2,267,334
TP	606		67° 35' 54"	" "	5.9	-		-5.9		5795.3	TP	+95	+599	307,665	2,267,568
TP	606				8.9	TH	+3.0	-5.9			TP				
	1076		219° 31' 56" -180	+13.4	5.0	89°	-18.8	-13.8			BS	+648	+858		
	1076				+4.9	271°	-18.8	-13.9	5781.4		BS				
551	989		218° 55'	+13.4	5.5	89°	+17.3	+11.8		5793.2		-605	-783	307,707	2,267,644
552	660		219° 36'	" "	6.3	89°	+11.5	+5.2		5786.6		-397	-527	307,915	2,267,900
X	551		221° 51' 26"	" "	8.7	89°	+9.6	+0.9		5782.3	X	-314	-453	307,998	2,267,974
553	332		219° 52'	" "	6.3	89°	+5.8	-0.5		5780.9		-199	-266	308,113	2,268,161
554	0				5.2	-		-5.2		5776.2	T	0	0	308,312	2,268,427
555	331		50° 09'	+13.4	11.3	-		-11.3		5770.1		+147	+296	308,459	2,268,723
556	661		47° 40'	" "	10.8	84	-3.3	-14.1		5767.3		+320	+579	308,632	2,269,006
X	949		47° 04' 56"	" "	4.0	91°	-16.6	-20.6		5760.8	X	+468	+826	308,780	2,269,253
557	990		47° 47' 01"	" "	4.8	91°	-17.3	-22.1		5759.3	TP	+477	+867	308,788	2,269,295
557	990				7.7	90° 50'	-14.4	-22.1			TP				
	1648		244° 26' 35" -180	+13.4	5.8	88° 50'	-33.6	-27.8			BS	+347	+1611		
	1648				5.7	271° 10'	-33.6	-27.9	5731.4		BS				
558	1320		245° 15'	+13.4	6.7	88° 50'	+26.9	+20.2		5751.6		-260	-1294	308,874	2,269,613
559	990		" "		7.0	88° 50'	+20.2	+13.2		5744.6		-195	-971	308,939	2,269,936

y-307,985 x-2,267,990
X BRIDGE

ACROSS STATION

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-2-82		B. Cotcamp		D. Hamilton		6834		D.H.		20		43			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		Chimney Rock - 7 1/2		UTAH		Emery								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									5731.4						
560	660		245° 15'	+13.4°	6.6	88° 50'	+13.4	+6.8		5738.2		-130	-647	309,004	2,270,260
561	330		" "	" "	7.6	88° 50'	+6.7	-0.9		5730.5		-65	-324	309,069	2,270,583
562	0				5.2	-		-5.2		5726.2	TP	0	0	309,134	2,270,907
563	330		65° 09'	+13.4°	11.2	88° 50'	+6.7	-4.5		5726.9		+66	+323	309,200	2,271,230
564	660		" "	" "	8.6	89° 30'	+5.8	-2.8		5728.6		+131	+647	309,205	2,271,554
565	990		" "	" "	8.2	89° 30'	+8.6	+0.4		5731.8		+197	+970	309,331	2,271,877
566	1320		" "	" "	11.1	89° 30'	+11.5	+0.4		5731.8		+262	+1294	309,376	2,272,201
Bm	1381		67° 41' 59"	" "	10.2	89° 40'	+8.0	-2.2		5729.2	Bm	+214	+1364	309,348	2,272,271
567	1649		64° 40' 01"	" "	11.6	89° 50'	+4.8	-6.8		5724.6	TP	+341	+1613	309,475	2,272,521
567	1649				11.5	270° 10'	+4.8	-6.7			TP				
	1097		230° 05' 21" - 180°	+13.4°	10.6	89°	-19.1	-8.5	5716.0		BS	+490	+982		
	1097			*	10.4	271°	-19.1	-8.7	-8.6		BS				
568	767		230° 05'	+13.4°	4.9	89°	+13.4	+8.5		5724.5		-342	-686	309,623	2,272,818
569	437		231° 06'	" "	9.1	89°	+7.6	-1.5		5714.5		-188	-394	309,777	2,273,110
570	108		229° 47'	" "	6.4	89°	+1.9	-4.5		5711.5		-49	-96	309,916	2,273,408
TP	0				5.2	-		-5.2		5710.8	TP	0	0	309,965	2,273,504
571	229		78° 56'	+13.4°	8.1	90° 30'	-2.0	-10.1		5705.9		-9	+229	309,956	2,273,733
572	558		80° 48'	" "	8.8	90° 30'	-4.9	-13.7		5702.3		-41	+557	309,924	2,274,061
573	877		74° 19' 11"	" "	13.8	90° 40'	-10.2	-24.0		5692.0	TP	+35	+876	310,000	2,274,381
573	877				13.7	269° 20'	-10.2	-23.9			TP				Around corner

y-309,315 x-2,272,275
Bm U.S.G.S. El. 5730.0
26 FmC 1969

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
11-2-82		B. Cotcamp		D. Hamilton		6834		D.H.		4	44					
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
UTAH		Chimney Rock-7 1/2		UTAH	Emery					L.O. Davis						
STATION NO.	SLOPE DISTANCE	PLOTting DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS
												LAT.	DEP.	Y	X	
										5692.0						
BS	991		234° 57' 54" -180°	+13.4°	5.7	88° 30'	-20.2	-14.5			BS	+365	+921			
BS	991			+	5.6	211° 10'	-20.2	-14.6	5677.4		BS		+1			
574	660		234° 48'	+13.4°	6.3	88° 30'	+17.3	+11.0		5688.4		-245	-613	310,120	2,274,690	
575	330		234° 41'	" "	8.6	87° 40'	+13.4	+4.8		5682.2		-123	-306	310,242	2,274,997	
576	0				5.2	-		-5.2		5672.2	T	0	0	310,365	2,275,303	ACROSS STA.
577	331		71° 51'	+13.4°	6.2	92° -	-11.5	17.7		5659.7		+27	+330	310,372	2,275,633	
578	661		72° 46'	" "	6.3	91° 50'	-21.1	27.4		5650.0		+44	+660	310,409	2,275,963	
579	990		73° 54' 29"	" "	5.0	91° 50'	-31.7	-36.7		5640.7	TP	+46	+988	310,411	2,276,292	
579	990				5.0	268° 10'	-31.7	-36.7			TP		+1			
	659		266° 35' 48" -180°	+13.4°	5.8	87° 30'	-28.7	-22.9	5617.8		BS	-114	+648			
	659			+	5.9	272° 30'	-28.7	-22.8			BS		+1			
580	330		269° 28'	+13.4°	6.9	87° 30'	+14.4	+7.5		5625.3		+73	-322	310,370	2,276,619	
581	0				5.2	-		-5.2		5612.6	T	0	0	310,297	2,276,941	
582	330		106° 26'	+13.4°	8.1	91° 20'	-7.7	15.8		5602.0		-164	+286	310,133	2,277,227	
583	660		" "	" "	4.7	91° 20'	-15.4	20.1		5597.7		-328	+573	309,969	2,277,514	
Bm	769		100 24 35 "	" "	2.7	91° 30'	-20.1	-22.8		5595.0	Bm	-310	+703	309,987	2,277,644	y=309,985 x=2,277,640 B.M. U.S.G.S EL. 5595.0 27 Fmk 1969
584	990		106° 29' 23 "	" "	7.9	91° 20'	-23.0	-30.9		5586.9	TP	-493	+858	309,804	2,277,800	
584	990				5.0	91° 30'	-25.9	-30.9			TP		+1			
	980		282° 55' 59" -180°	+13.4°	5.7	88° -	-34.2	-28.5			BS	-434	+878			rough n
	980			+	5.6	272° -	-34.2	-28.6	5558.3		BS		+1			CORNER

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-2-82		B. Cotcamp		D. Hamilton		6834		D.H.		4		45			
AREA		TOPO. MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		Chimney Rock-7 1/2		UTAH		Emery								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									5558.3						
585	653		280° 07'	+13.4°	10.0	88° -	+22.8	+12.8		5571.1		+261	-599	309,631	2,278,080
586	327		273° 14'	" "	9.1	88° -	+11.4	+2.3		5560.6		+94	-313	309,464	2,278,366
587	0				5.2	-		-5.2		5553.1	T	0	0	309,370	2,278,679
588	330		78° 16'	+13.4°	8.1	93° 20'	-19.2	-27.3		5531.0		-10	+330	309,360	2,279,009
589	661		78° 18' 01"	" "	6.9	92° 40'	-30.8	-37.7		5520.6	TP	-20	+660	309,350	2,279,399
589	661				6.9	267° 20'	-30.8	-37.7			TP				
	2303		272° 33' 01" -180	+13.4°	7.2	88° -	-80.4	-73.2	5447.2		BS	-632	+2213		
	2303				6.9	272° -	-80.4	-73.5	-73.4		BS				THROUGH A CORNER
590	1974		272° 40'	+13.4°	13.3	88° 10'	+63.1	+49.8		5497.0		+546	-1897	309,264	2,279,655
591	1644		272° 18'	" "	12.4	88° 12'	+51.6	+39.2		5486.4		+445	-1583	309,113	2,279,969
592	1315		271° 42'	" "	7.8	88° 10'	+42.1	+28.3		5475.5		+343	-1270	309,061	2,280,282
593	988		270° 21'	" "	12.4	88° 12'	+31.0	+18.6		5465.8		+235	-960	308,953	2,280,592
594	659		267° 38'	" "	11.2	88° 20'	+19.2	+8.0		5455.2		+126	-647	308,844	2,280,905
595	330		261° 30'	" "	6.0	88° 20'	+9.6	+3.6		5450.8		+28	-329	308,746	2,281,223
596	0				5.2	-		-5.2		5442.0	T	0	0	308,718	2,281,552
597	330		92° 24'	+13.4°	6.9	91° 30'	-8.6	-15.5		5431.7		-96	+318	308,628	2,281,870
598	655		93° 49'	" "	12.2	91° 30'	-17.1	-29.3		5417.9		-194	+626	308,524	2,282,178
599	962		85° 19'	" "	9.0	91° 50'	-30.8	-39.8		5407.4		-146	+951	308,572	2,282,503
600	1280		80° 21'	" "	10.8	91° 50'	-40.9	-51.7		5395.5		-84	+1277	308,634	2,282,829
601	1600		77° 07'	" "	10.3	91° 56'	-51.2	-61.5		5385.7		-14	+1600	308,704	2,283,152

THROUGH A CORNER

across STA.

THROUGH A CORNER

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
11-2-82		B. Cotcamr		D. Hamilton		6834		D.H.		4	46					
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER					
UTAH		Dry mesa-7 1/2'		UTAH		Emery					L.O. Davis					
STATION NO.	SLOPE DISTANCE	PLOTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS		
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y	X
									5447.2							
602	1923		75° 16'	+13.4°	11.3	91° 50'	-61.5	-72.8		5374.4		+45	+1922	308,263	2,283,474	Chimney Rock-7 1/2' Through a
603	2250		73° 52'	" "	9.0	91° 30'	-58.9	-67.9		5379.3		+107	+2247	308,825	2,283,799	corner Dry mesa-7 1/2'
604	2577		72° 45' 53"	" "	8.5	91° 20'	-60.0	-68.5		5378.7	TP	+172	+2571	308,890	2,284,123	
604	2577				8.4	268° 40'	-60.0	-68.4			TP					
	1206		273° 35' 03" -180°	+13.4°	7.6	89°	-21.0	-13.4	5365.3		BS	-352	+1153			
	1206			+	7.5	271°	-21.0	-13.5			BS					AROUND + THROUGH
605	917		282° 06'	+13.4°	6.2	88° 50'	+18.7	+12.5		5377.8		+395	-828	308,933	2,284,448	CORNERS.))
606	596		285° 46'	" "	5.8	88° 50'	+12.1	+6.3		5371.6		+290	-520	308,828	2,284,756	" "
607	272		277° 52'	" "	8.0	87° 50'	+10.3	+2.3		5367.6		+99	-253	308,637	2,285,023	" "
TP	0				5.2	-		-5.2		5360.1	TP	0	0	308,538	2,285,276	
608	58		83° 44'	+13.4°	5.3	93°	-3.0	-8.3		5357.0		-7	+58	308,531	2,285,334	
609	387		76° 50'	" "	9.7	93°	-20.2	-29.9		5335.4		-2	+387	308,536	2,285,663	
610	715		74° 07'	" "	10.4	93°	-37.4	-47.8		5317.5		+31	+714	308,569	2,285,990	AROUND CORNER
611	1045		73° 52'	" "	9.6	92° 20'	-42.5	-52.1		5313.2		+50	+1044	308,588	2,286,320	" "
612	1342		67° 33'	" "	8.8	91° 20'	-31.2	-40.0		5325.3		+211	+1325	308,749	2,286,601	" "
TP	1472		59° 44' 23"	" "	9.5	90° 30'	-12.8	-22.3		5343.0	Bm	+427	+1409	308,965	2,286,685	5-308,965, X-2,286,685 Bm. U.S.G.S. EL. 5343.0 28 Fmk-1969 Horiz core, 9--15 X--14'
TP	1472				9.6	269° 30'	-12.8	-22.4			Bm					

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Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-5-82		B. Cotcamp		D. Hamilton		6834		D.H.		4		47			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		CHINA DRY MESA-T ¹ / ₂		UTAH		Emery								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
	1062		217° 02' 29" -180°	+13.6°	3.6	88° 30'	-27.8	-24.2	5318.7		BS	+673	+821		
	1062			+	3.4	271° 30'	-27.8	-24.4	5243.5		BS				
613	946		215° 31'	+13.6°	6.9	88° 30'	+24.8	+17.9		5336.6		-619	-715	309,018	2286,790 THROUGH CORNER
614	637		213° 17'	" "	12.6	88° 20'	+18.5	+5.9		5324.6		-348	-534	309,289	2286,971 " "
615	327		237° 57'	" "	10.3	88° 20'	+9.5	0.8		5317.9		-103	-310	309,534	2287,195 " "
616	0				5.2	-		-5.2		5313.5	TP	0	0	309,657	2287,505
617	330		67° 31'	+13.6°	12.5	-		-12.5		5306.2		+51	+326	309,688	2287,831
618	660		" "	" "	12.7	-		-12.7		5306.0		+102	+652	309,739	2218,157
619	990		" "	" "	8.3	TH	+5.0	-3.3		5315.4		+153	+978	309,790	2288,483
620	1319		67° 43'	" "	8.8	-		-8.8		5309.9		+199	+1304	309,836	2288,809
TP	1401		67° 12' 54"	" "	9.1	-		-9.1		5309.6	TP	+224	+1383	309,860	2288,887
	1401			" "	9.0	270°		-9.0			TP				
	2621		277° 37' 12" -180°	+13.6°	5.0	89° 30'	-22.9	-17.9	5291.5		BS	-949	+2443		THROUGH CORNER
	2621			+	4.6	270° 30'	-22.9	-18.3	518.13		BS				
621	2372		278° 36'	+13.6°	10.5	89° 30'	+20.7	+10.2		5301.7		+896	-2196	309,806	2289,133
622	2048		280° 07'	" "	9.6	89° 40'	+11.9	+2.3		5293.8		+824	-1875	309,734	2289,454
623	1724		282° 14'	" "	5.2	-		-5.2		5286.3		+751	-1552	309,661	2289,777
624	1397		282° 41'	" "	10.2	BH	7.0	17.2		5274.3		+619	-1253	309,529	2290,076
625	1069		281° 02'	" "	9.1	BH	5.3	14.4		5277.1		+446	-972	309,356	2290,357
626	740		278° 57'	" "	8.4	90° 50'	10.8	19.2		5272.3		+284	-683	309,194	2290,646

SURVEY NOTES-HIGH RESOLUTION DATA

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Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
11-5-82		B. Cotcamp		D. Hamilton		6834		D.H.		4	48					
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE	PPM	PARTY MANAGER				
UTAH		DRY MESA - 7 1/2'		UTAH		Emery						L.O. Davis				
STATION NO.	SLOPE DISTANCE	PLOTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS
												LAT.	DEP.	Y	X	
									5291.5							
627	413		275° 11'	+13.6°	12.0	-		-12.0		5279.5		+133	-391	309,043	2290,938	
628	83		" "	" "	5.6	-		-5.6		5285.9		+27	-79	308,937	2291,250	
TP	0				5.2	-		-5.2		5286.3	TP	0	0	308,910	2291,329	
629	247		101° 19'	+13.6°	7.4	-		-7.4		5284.1		-104	+224	308,806	2291,553	through a corner
630	572		107° 47'	" "	12.5	84	-2.9	75.4		5276.1		-298	+488	308,612	2291,817	" "
631	901		108° 14'	" "	10.8	91°	-75.7	26.5		5265.0		-475	+765	308,435	2292,094	" "
632	1231		108° 45'	" "	9.1	90° 40'	-74.3	23.4		5268.1		-659	+1040	308,251	2292,369	" "
TP	1334		108° 23' 06"	" "	8.7	90° 40'	-15.5	-24.2		5267.3	TP	-707	+1131	308,202	2292,460	
TP	1334				8.6	269° 20'	-15.5	-24.1			TP	-	-			
	554		271° 15' 57" -180	+13.6°	5.6	89°	-9.7	-4.1	5263.2		BS	-142	+535			
	554			+	4.0	89° 10'	-8.1	-4.1			BS	-	-			
633	330		269° 54'	+13.6°	10.2	89° 10'	+4.8	-5.4		5257.8		+77	-321	308,136	2292,673	
634	0				5.2	-		-5.2		5258.0	TP	0	0	308,059	2292,994	
635	330		101° 04'	+13.6°	5.9	89° 10'	+4.8	-1.1		5262.1		-138	+300	307,921	2293,294	
636	655		96° 35'	" "	5.8	88° 20'	+19.0	+13.2		5276.4		-226	+615	307,833	2293,609	around corner
TP	677		98° 15' 36"	" "	7.7	88° 20'	+19.7	+12.0		5275.2	TP	-252	+628	307,806	2293,621	
TP	677				9.7	88° 10'	+21.7	+12.0			TP	-	-			
	398		228° 47' 23" -180	+13.6°	5.4	93°	+20.8	+26.2	5301.4		BS	+184	+352			
	398			+	4.2	93° 10'	+22.0	+26.2			BS	-	-			

SURVEY NOTES-HIGH RESOLUTION DATA

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Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
11-5-82		B. Cotcamp		D. Hamilton		6834		D.H.		4	49					
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
UTAH		DRY MESA - 7 1/2		UTAH		Emery								L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS
												LAT.	DEP.	Y	X	
									5301.4							
637	76		210° 19'	+13.6°	7.3	93° 10'	-7.2	-11.5		5289.9		-55	-53	307,934	229,391.9	
TP	0				5.2	-		-5.2		5296.2	TP	0	0	307,989	229,397.2	
638	252		40° 57'	+13.6°	7.8	87° 40'	+10.3	+2.5		5303.9		+146	+205	308,135	229,417.7	
TP	517		44° 44' 56"	" "	7.8	88°	+18.0	+10.2		5311.6	TP	+271	+440	308,259	229,411	
TP	517				6.3	88° 10'	+16.5	+10.2			TP	-1	-1			
	747		258° 14' 59" -180	+13.6°	2.7	92°	+26.1	+28.8	5340.4		BS	-24	+746			
	747				2.6	268°	+26.1	+28.7			BS	-1	-1			ROAD CORNER
639	680		258° 42'	+13.6°	7.9	91° 40'	-19.8	-27.7		5312.7		+27	-679	308,261	229,447.7	" "
640	369		270° 56'	" "	10.9	92° 40'	-17.1	-28.0		5312.4		+93	-357	308,327	229,479.9	" "
641	49		281° 39'	" "	7.2	92° 40'	-2.3	-9.5		5330.9		+21	-44	308,255	229,511.2	LAST STA. ON ROAD
TP	0				5.2	-		-5.2		5335.2	TP	0	0	308,234	229,515.6	
642	280		108° 11'	+13.6°	10.8	89° 40'	+1.6	-9.2		5331.2		-147	+238	308,087	229,539.4	CROSS COUNTRY
643	610		107° 16'	" "	5.7	89° 40'	+3.6	-2.1		5338.3		-313	+524	307,921	229,568.0	" "
644	933		106° 56'	" "	4.9	86° 10'	+62.2	+57.3		5397.7		-474	+804	307,760	229,596.0	" "
TP	1062		106° 45' 28"	" "	2.3	84° 40'	+98.7	+96.4		5436.8	TP	-534	+912	307,699	229,606.7	" "
TP	1062				2.3	275° 20'	+98.7	+96.4			TP	-1	-1			
	1838		265° 29' 41" -180	+13.6°	9.7	89° 30'	-16.0	-6.3	5430.5		BS	-291	+1815			
	1838				9.6	270° 30'	-16.0	-6.4			BS	-1	-1			
645	1649		263° 43'	" "	6.5	89° 30'	+14.4	+7.9		5438.4		+210	-1636	307,617	229,624.5	CROSS COUNTRY
Bm	1511		234° 59' 11"	" "	2.0	89°	+26.4	+24.4		5454.9	Bm	-552	-1406	306,855	229,647.5	U.S.G.S BM EL. 5456.0

SURVEY NOTES-HIGH RESOLUTION DATA

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Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
11-5-82		B. Cotcamp		O. Hamilton		6834		D.H.		4	50						
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER						
UTAH		Dry Mesa-4 1/2		UTAH		Emery					L.O. Davis						
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
									5430.5								
646	1319		263° 24'	+13.6°	7.2	89° 30'	+11.5	+4.3		5434.8		+161	-1309	307,568	2296,572	CROSS COUNTRY	
647	990		" "	" "	6.2	89° 30'	+8.6	+2.4		5432.9		+121	-983	307,528	2296,898	" "	
648	660		" "	" "	6.6	89° 30'	+5.8	0.8		5429.7		+80	-655	307,487	2297,226	" "	
649	330		" "	" "	6.6	89° 30'	+2.9	-3.7		5426.8		+40	-328	307,447	2297,553	" "	
650	0				5.2	-		-5.2		5425.3	TP	0	0	307,407	2297,881	" "	
651	330		82° 45'	+13.6°	9.0	90° 30'	-2.9	-11.9		5418.6		-37	+328	307,370	2298,209	CROSS COUNTRY	
652	660		" "	" "	11.5	90° 30'	-5.8	-7.3		5413.2		-73	+656	307,334	2298,537	" "	
653	984		78° 55'	" "	5.4	90° 50'	-7.3	-9.7		5410.8		-43	+983	307,364	2298,864	FIRST STA. BACK	
654	1312		80° 17'	" "	8.2	90° 30'	-11.5	-7.7		5410.8		-89	+1309	307,318	2299,190	ON ROAD	
655	1641		81° 23'	" "	11.0	90° 30'	-7.3	-25.3		5405.2		-143	+1635	307,264	2299,516		
656	1969		82° 17'	" "	10.3	90° 30'	-17.2	-27.5		5403.0		-202	+1959	307,205	2299,840		
657	2298		82° 55' 55"	" "	7.7	90° 30'	-20.1	-27.8			TP	-261	+2283	307,146	2300,163		
657	2298				7.8	269° 30'	-20.1	-27.9		5402.6	TP						
	1632		274° 06' 12" -180	+13.6°	11.5	89° -	-28.5	-17.0	5385.5		BS	-496	+1554			THROUGH A CORNER	
	1632				11.3	271° -	-28.5	-17.2	5385.5		BS						
658	1307		276° 08'	+13.6°	12.0	89° -	+22.8	+10.8		5396.3		+441	-1230	307,091	2300,486	" "	
659	984		279° 26'	" "	6.7	89° -	+17.2	+10.5		5396.0		+385	-906	307,035	2300,810	" "	
660	658		282° 34'	" "	6.7	89° -	+11.5	+4.8		5390.3		+290	-591	306,940	2301,25	" "	
661	330		280° 32'	" "	5.8	89° -	+5.8	0.0		5385.5		+135	-301	306,785	2301,415	" "	
Bm	91		310° 33'	" "	0.8	87° 30'	+4.0	+3.2		5388.7	Bm	+74	-53	306,724	2301,663	4-306,695 71 Fmk 1409 X-2,301,695 U.S.G.S. Bm BL 5389.	

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE			
11-5-82		B. Cotcamp		D. Hamilton		6834		D.H.		4	51			
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER			
UTAH		Dry MESA- 7 1/2		UTAH		Emery					L.O. Davis			
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.	
									5385.5					
662	0				5.2	-		-5.2		5380.3	T	0	0	306,650 2301,716
663	330		87° 50'	+13.6°	5.9	90° 30'	-2.9	8.8		5376.7		-65	+323	306,585 2301,948
664	655		93° 36'	" "	5.7	90° 30'	-5.7	11.4		5374.1		-194	+626	306,456 2302,342 THROUGH a CORNER
665	982		96° 30'	" "	5.7	90° 30'	-8.6	14.3		5371.2		-337	+922	306,313 2302,638 THROUGH "
666	1279		89° 38'	" "	5.9	90° 30'	-11.2	17.1		5368.4		-293	+1245	306,357 2302,961 " "
667	1458		78° 09' 24"	+13.8°	7.6	-		-7.6		5377.9	TP	-50	+1457	306,600 2303,172 " "
667	1458				7.5	270°		-7.5			TP			
	943		191° 57' 19" - 180°	+13.8°	7.3	86°	-65.8	-58.5			BS	+847	+409	THROUGH CORNER
	943				+7.2	274°	-65.8	-58.6	5379.3		BS			
668	621		196° 32'	+13.8°	12.2	86° 20'	+39.6	+27.4		5346.7		-536	-314	306,911 2303,266 " "
669	327		212° 14'	" "	5.6	86° 20'	+20.9	+15.3		5334.6		-227	-235	307,220 2303,345 " "
670	0				5.2	-		-5.2		5314.1	T	0	0	307,447 2303,580
671	330		42° 47'	+13.8°	7.5	92° 30'	-14.4	-21.9		5297.4		+182	+275	307,629 2303,855
672	660		" "	" "	7.4	92° 30'	-28.8	-36.2		5283.1		+363	+551	307,810 2304,161
673	989		40° 25'	" "	6.1	92° 30'	-43.1	-49.2		5270.1		+578	+802	308,025 2304,382 LAST STA. ON ROAD
674	1309		43° 36' 50"	" "	7.6	92° 20'	-53.3	-60.9		5258.4	TP	+704	+1102	308,151 2304,681 CROSS COUNTRY
674	1309				7.5	267° 40'	-53.3	-60.8			TP			" "
	980		239° 06' 35" - 180°	+13.8°	7.2	88° 30'	-25.7	-18.5			BS	+288	+936	" "
	980				+7.1	271° 30'	-25.7	-18.6	5239.8		BS			" "
675	655		239° 50'	+13.8°	10.1	90° 40'	-7.6	-17.7		5222.1		-185	-628	308,254 2304,988

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
11-5-82		B. Cotcamp		D. Hamilton		6834		P.H.		4		52				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
UTAH		DRY MESA-7 1/2		UTAH		EMERY								L.O. Davis		
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS
												LAT.	DEP.	Y	X	
									5239.8							
676	327		241° 08'	+13.8°	9.8	91° 30'	-8.6	-18.4		5221.4		-85	-316	308,354	2305,300	
677	0				5.2	-		-5.2		5234.6	X	0	0	308,439	2305,616	FIRST STA. BACK ON ROAD
678	327		50° 11'	+13.8°	7.3	-		-7.3		5232.5		+143	+294	308,582	2305,910	
679	586		69° 47'	" "	5.8	-		-5.8		5234.0		+65	+582	308,504	2306,198	AROUND 90° CORNER
680	845		86° 31'	" "	7.4	89° 10'	+12.3	+4.9		5244.7		+151	+831	308,288	2306,447	" "
681	1167		85° 27'	" "	11.1	89° 10'	+17.0	+5.9		5245.7		-188	+1152	308,251	2306,768	" "
TP	1428		86° 28' 49"	" "	11.2	89° 10'	+20.8	+9.6		5249.4	TP	-255	+1405	308,184	2307,020	
TP	1428				11.1	270 50'	+20.8	+9.7			TP					
	516		238° 29' 28" -180	+13.8°	11.3	-		+11.3	5260.7		BS	+157	+492			
	516				8.7	BM	+2.6	+11.3			BS					
682	441		238° 45'	+13.8°	9.4	-		-9.4		5251.3		-132	-421	308,209	2307,090	
683	112		234° 01'	" "	3.8	-		-3.8		5256.9		-42	-104	308,299	2307,407	
X	0				5.2	-		-5.2		5255.5	X	0	0	308,341	2307,511	
684	218		51° 49'	+13.8°	5.9	89° -	+3.8	-2.1		5258.6		+90	+199	308,431	2307,710	
685	536		38° 25' 49"	" "	3.8	89° -	+9.4	+5.6			TP	+328	+424	308,669	2307,934	
685	536				2.3	89° 10'	+7.8	+5.5		5266.2	TP					
	1319		197° 43' 02" -180	+13.8°	5.4	91° 30'	+34.5	+39.9			BS	+1124	+689			
	1319				5.3	268° 30'	+34.5	+39.8	5306.0		BS					
686	990		197° 43'	+13.8°	7.1	91° 20'	-23.0	-30.1		5275.9		-844	-518	308,949	2308,104	

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-5-82		B. Cotcamp		D. Hamilton		6834		D.H.		4		53			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		Dey Mesa-7 1/2		UTAH		Emery								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									5306.0						
687	660		197° 43'	+13.8°	6.6	91° 20'	-15.4	-22.0		5284.0		-563	-345	309,230	2308,277
688	330		" "	" "	8.3	91° 20'	-7.7	-16.0		5290.0		-281	-173	309,512	2308,449
689	0				5.2	-		-5.2		5300.8	TP	0	0	309,793	2308,622
690	329		23° 54'	+13.8°	6.9	87° 40'	+13.4	-6.5		5299.5		+260	+201	310,053	2308,823
691	655		28° 04'	" "	10.3	87° 40'	+26.6	+16.3		5322.3		+488	+437	310,281	2309,059
692 Bm	761		14° 38' 14"	" "	10.0	87° 40'	+31.0	+21.0		5327.0	TP	+669	+362	310,462	2308,983
Bm	761				10.0	272° 20'	+31.0	+21.0			TP				
	1116		134° 49' 36" +180°	+13.8°	0.6	-		+0.6	5327.6		BS	+993	-581		
	1116				0.6	270°		+0.6			BS				
692	1021		131° 35'	+13.8°	9.7	74	+5.1	-4.6		5323.0		-840	+580	310,575	2308,981
693	693		133° 29'	" "	11.9	84	-3.5	-15.4		5312.2		-583	+375	310,832	2308,776
694	366		138° 24'	" "	11.3	84	-7.8	-13.1		5314.5		-324	+171	311,091	2308,572
695	66		187° 55'	" "	9.2	92°	-2.3	-11.5		5316.1		-60	-27	311,355	2308,374
TP	0				5.2	-		-5.2		5322.4	TP	0	0	311,415	2308,401
696	231		344° 05'	+13.8°	8.0	97°	-27.9	-35.9		5291.7		+231	-9	311,646	2309,392
697	530		07° 32'	" "	10.1	95°	-46.0	-56.1		5271.5		+494	+193	311,909	2308,594
698	852		8° 03' 31"	" "	7.1	93° 30'	-51.9	-59.0		5268.6		+813	+254	312,228	2308,655
699	1181		04° 20'	" "	12.5	92° 10'	-44.6	-57.1		5270.5		+1122	+368	312,537	2308,769
700	1502		02° 52' 59"	" "	7.9	92°	-52.4	-60.3		5267.3	TP	+1438	+431	312,853	2308,831
700	1502				7.8	268°	-52.4	-60.2			TP				

U-310,420 x-2,309,000
 U.S.G.S Bm EL. 5327.0
 33 mm 1969.

Setup of Road out of
 of Knoll
 around 90° corner

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
11-6-82		B. Cotcamp		D. Hamilton		6834		D.H.		4	54				
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER				
UTAH		Dry Mesa-7 1/2		UTAH		Emery					L.O. Davis				
STATION NO.	SLOPE DISTANCE	PLOTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
										5267.3					
	1416		163° 56' 31" +180	+13.8°	5.6	87° 30'	61.8	56.2	5211.1		BS	+1414	-56		
	1416			+	5.5	272° 30'	61.8	56.3			BS		-1		
701	1089		165° 29'	+13.8°	7.1	87° 30'	+47.5	+40.4		5251.5		-1089	+14	313,178	2308,788
702	759		165° 18'	" "	11.8	87° 30'	+33.1	+21.3		5232.4		-759	+12	313,508	2308,786
703	430		168° 10'	" "	5.8	87° 30'	+18.7	+12.9		5224.0		-430	-15	313,837	2308,759
704	104		168° 29'	" "	8.7	87° 30'	+4.5	-4.2		5206.9		-104	-4	314,163	2308,770
T	0				5.4	-		-5.4		5205.7	T	0	0	314,267	2308,774 OFF ROAD SW CORNER
705	265		64° 57'	+13.8°	9.8	89° 10'	+3.9	-5.9		5205.2		+52	+260	314,319	2309,034
706	590		72° 18'	" "	8.7	86° 50'	+32.5	+23.8		5234.9		+40	+589	314,307	2309,363
707	919		73° 52'	" "	6.0	86° 20'	+58.7	+52.7		5263.8		+37	+918	314,304	2309,692
TP	995		77° 23' 38"	" "	5.9	86° 20'	+63.6	+57.7		5268.8	Bm	-21	+993	314,246	2309,766 S-314,220 X-2,309,775 U.S.G.S Bm EL. 5269.0 34 F.M.K. 1969
TP	995				5.8	273° 40'	+63.6	+57.8			Bm		-1		
	1529		231° 27' 36" -180	+13.8°	11.7	85° 30'	120.0	108.3	5160.5		BS	+638	+1384		Through 2 corners
	1529			+	11.6	274° 30'	120.0	108.4			BS		-1		
708	1339		241° 48"	+13.8°	9.2	85° 40'	+100.9	+91.7		5252.2		-333	-1297	314,551	2309,852
709	1110		251° 48'	" "	7.7	85° 20'	+90.0	+82.3		5242.8		-85	-1107	314,799	2310,042
710	787		256° 12'	" "	9.7	85° 20'	+63.8	+54.1		5214.6		±0	-787	314,884	2310,362
711	520		273° 23'	" "	9.0	85° 20'	+42.2	+33.2		5193.7		+154	-497	315,038	2310,652
712	325		308° 15'	" "	12.9	85° 20'	+26.4	+13.5		5174.0		+256	-200	315,140	2310,949

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-6-82		B. Cotcamp		O. Hamilton		6834		D.H.		4		55			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		Dry Mesa-7 1/2'		UTAH		Emery								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									5160.5						
713	0				5.2	-		-5.2		5155.3	T	0	0	314,884	2311,149
714	326		123° 16'	+13.8°	7.7	91° 30'	-8.5	76.2		5144.3		-239	+222	314,645	2311,371 through a corner
715	638		109° 54'	" "	9.4	91° 30'	-16.7	26.1		5134.4		-354	+531	314,530	2311,680 " "
716	951		102° 10'	" "	6.1	91° 20'	-22.1	28.2		5132.3		-416	+855	314,468	2312,004 " "
717	1270		97° 49'	" "	8.9	91°	-22.2	31.1		5129.4		-468	+1181	314,416	2312,330 " "
TP	1420		95° 03' 06"	" "	5.1	91°	-24.8	29.9		5130.6	TP	-459	+1344	314,425	2312,492
TP	1420				5.0	269°	-24.8	29.8			TP		-1		
	607		214° 50' 36" -180	+13.8°	4.9	88° 30'	75.9	11.0	5119.6		BS	+401	+455		
	607			+	4.9	271° 30'	75.9	11.0			BS		-1		
718	448		211° 48'	+13.8°	11.9	88° 30'	+11.7	0.2		5119.4		-313	-320	314,513	2312,626
719	119		214° 45'	" "	8.1	88° 30'	+3.1	5.0		5114.6		-79	-89	314,747	2312,857
T	0				5.2	-		-5.2		5114.4	T	0	0	314,826	2312,946 NORTH SIDE OF ROAD
720	215		80° 04'	+13.8°	11.4	91°	-3.8	75.2		5104.4		-15	+215	314,811	2313,161
721	463		67° 19'	" "	11.1	91°	-8.1	79.2		5100.4		+72	+457	314,898	2313,403 AROUND 90° CORNER
TP	573		45° 53' 30"	" "	12.5	91° 10'	-11.7	24.2		5095.4	TP	+289	+495	315,115	2313,440
TP	573				12.5	268° 50'	-11.7	24.2			TP		-1		
	357		223° 49' 56" -180	+13.8°	8.0	87° 30'	75.6	7.6	5087.8		BS	+191	+301		
	357			+	6.9	87° 40'	74.5	7.6			BS				
722	238		222° 26'	+13.8°	5.4	87° 40'	+9.7	74.3		5092.1		-132	-198	315,174	2313,542
T	0				5.2	-		-5.2		5082.6	T	0	0	315,306	2313,740

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-6-82		B. Cotcamp		D. Hamilton		6834		D.H.		LD		4 56			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		Dry MESA-7 1/2		UTAH		Emery								I.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									5087.8						
723	95		59° 45'	+13.8°	8.5	-		-8.5		5079.3		+27	+91	315,333	2313,831
724	400		29° 30' 59"	" "	13.8	-		-13.8		5074.0	TP	+291	+274	315,597	2314,013
724	400				11.8	84	2.0	-13.8			TP				
	240		259° 07' 23" -180°	+13.8°	1.3	-		+1.3	5075.3		BS	-12	+240		
	240			+	2.5	TH	1.2	+1.3			BS				
π	0				5.2	-		-5.2		5070.1	π	0	0	315,585	2314,252
725	69		45° 44'	+13.8°	5.3	-		-5.3		5070.0		+35	+59	315,620	2314,311
726	398		38° 37'	" "	8.6	91°	-6.9	-15.5		5059.8		+243	+315	315,828	2314,567
TP	670		48° 17' 49"	" "	1.4	90° 40'	-7.8	-9.2		5066.1	TP	+314	+592	315,899	2314,843
TP	670				3.3	90° 30'	-5.8	-9.1			TP				
	305		226° 50' 36" -180°	+13.8°	4.2	85°	-26.6	-22.4	5043.7		BS	+149	+265		
	305			+	3.3	85° 10'	-25.7	-22.4			BS				
Bm	260		232° 42' 42"	+13.8°	8.3	83° 50'	+27.9	+19.6		5063.3	Bm	-103	-237	315,945	2314,870
727	269		221° 36'	" "	8.3	85° 30'	+21.0	+12.7		5056.4		-153	-221	315,895	2314,886
π	0				5.2	-		-5.2		5038.5	π	0	0	316,048	2315,107
728	56		13° 02'	+13.8°	6.2	90° 30'	0.5	-6.7		5037.0		+50	+25	316,098	2315,132
729	376		08° 09' 36"	" "	10.5	90° 21' 30"	-3.0	-13.5		5030.2	TP	+349	+139	316,400	2315,246
729	376				10.2	90° 30'	-3.3	-13.5			TP				
	630		228° 15' 06" -180°	+13.6°	1.6	-		+1.6	5031.8		BS	+297	+555		
	630			+	4.8	TH	3.2	+1.6			BS				

4-315,945 X-2314,870
 U.S.G.S Bm EL. 5064.0
 35 Fmk 1969 Horizy -11
 CORR. X = 34

Through corner

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
11-6-82		B. Cotcamp		D. Hamilton		6834		D.H.		4	57						
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER								
UTAH		Dry Mesa - 1/2	UTAH	Emery					L.O. Davis								
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
									5031.8								
730	325		243° 42'	+13.6°	8.1	-		-8.1		5023.7		-71	-317	316,629	2315,484	THROUGH CORNER	
731	0				5.2	-		-5.2		5026.6	T	0	0	316,760	2315,801		
732	327		52° 24'	+13.6°	9.2	93° 30'	-19.9	-29.1		5002.7		+133	+299	316,883	2316,100		
733	623		59° 40' 05"	" "	6.2	93° 20'	-36.2	-42.4		4989.4	TP	+179	+596	316,882	2316,397	AROUND 90° CORNER	
733	623				8.0	93° 10'	-34.4	-42.4			TP						
	262		322° 08' 55" -180	+13.6°	7.4	88° -	-9.1	-1.7	4987.7		BS	-239	+108				
	262				6.6	88° 10'	-8.4	-1.8			BS					AROUND 90°	
T	0				5.2	-		-5.2		4982.5	T	0	0	316,646	2316,505	CORNER	
734	60		107° 24'	+13.6°	5.9	91° 50'	-1.9	-7.8		4979.9		-31	+51	316,615	2316,556		
TP	322		92° 00' 40"	" "	7.8	93° 30'	-19.6	-27.4		4960.3	TP	-86	+310	316,563	2316,815	STADIA.	
TP	322				8.7	93° 20'	-18.7	-27.4			TP						
	571		245° 51' 42" -180	+13.6°	10.7	87° -	-29.8	-19.1	4941.2		BS	+104	+561				
	571				10.7	273° -	-29.8	-19.1			BS						
735	500		245° 17'	+13.6°	9.6	87° -	+26.1	+16.5		4957.7		-96	-491	316,574	2316,885		
736	170		245° 31'	" "	1.3	87° -	+8.9	+7.6		4948.8		-32	-167	316,638	2317,209		
T	0				5.2	-		-5.2		4936.0	T	0	0	316,670	2317,326		
737	158		78° 28'	+13.6°	5.7	93° 10'	-8.7	-14.4		4926.8		-6	+158	316,664	2317,534		
738	485		80° 26'	" "	2.4	92° -	-16.9	-19.3		4921.9		-34	+484	316,636	2317,860		
TP	556		78° 03' 20"	" "	7.8	90° 40'	-6.5	-14.3		4926.9	TP	-16	+556	316,657	2317,932	STADIA.	
TP	556				9.4	90° 30'	-4.9	-14.3			TP						

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-6-82		B. Cotcamp		D. Hamilton		6834		D.H.		4		58			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		Dry MESA - 7 1/2		UTAH		Emery								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									4926.9						
	365		203° 07' 42" - 180°	+13.6°	10.1	92° 30'	+15.9	+26.0	4952.9		BS	+292	+218		STADIA
	365				9.0	92° 40'	+17.0	+26.0			BS				
739	127		206° 34'	+13.6°	4.8	92° 30'	-5.5	10.3		4942.6		-97	-82	316,855	2318,068
TP	0				5.2	-	-	-5.2		4947.7	TP	0	0	316,952	2318,150 OFF ROAD
740	203		12° 34'	+13.6°	10.3	94° 10'	-14.7	25.0		4927.9		+182	+90	317,134	2318,240
741	513		28° 57'	"	6.8	94° 10'	-37.2	44.0		4908.9		+378	+347	317,330	2318,497
TP	622		30° 47' 43"	"	7.8	94° 20'	-46.9	-54.7		4898.2	TP	+443	+434	317,398	2318,584 STADIA.
TP	622				9.6	94° 10'	-45.1	-54.7			TP				
	781		168° 04' 04" + 180°	+13.6°	2.1	87°	-40.8	-38.7	4859.5		BS	+780	+23		STADIA.
	781				4.4	86° 50'	-43.1	-38.7			BS				
742	568		167° 11'	+13.6°	5.8	86° 50'	+31.3	+25.5		4885.0		-568	-8	317,613	2318,599
743	252		182° 06'	"	9.8	86° 50'	+13.9	+4.1		4863.6		-243	-68	317,938	2318,539
TP	0				5.2	-	-	-5.2		4854.3	TP	0	0	318,181	2318,607
744	68		38° 08'	+13.6°	6.2	-	-	-6.2		4853.3		+42	+53	318,223	2318,660
Bm	232		31° 30' 21"	"	0.8	TM	+1.2	+0.4		4859.9	Bm	+164	+164	318,345	2318,771
745	370		62° 14'	"	5.4	-	-	-5.4		4854.1		+91	+359	318,272	2318,966
746	693		66° 48'	"	14.7	Bm	-3.5	18.2		4841.3		+116	+683	318,297	2319,290
TP	909		69° 19' 55"	"	11.5	90° 30'	-7.9	-19.4		4840.1	TP	+112	+902	318,294	2319,509
TP	909				8.8	90° 40'	-10.6	-19.4			TP				

Around 90 corner
 ↑
 DRY MESA - 7 1/2
 S-318,305 X-2,318,740
 U.S.G.S. Bm EL. 48600
 36' mark 1965
 CLIFF - 7 1/2
 ↓

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
11-6-82		B. Cotcamp		D. Hamilton		6834		D.H.		4		59			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
UTAH		CLIFF - 7 1/2'		UTAH		Emery								L.O. Davis	
STATION NO.	SLOPE DISTANCE	PLOT DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS TP	COORDINATES		REMARKS	
												NORTH + SOUTH - LAT.	EAST + WEST - DEP.		Y
									4840.1						
	841		207° 26' 54" - 180°	+13.6°	8.0	89°	-14.7	-6.7	4833.4		BS	+634	+552		STADIA.
	841			+5.6	89° 10'	-12.2	-6.6			BS		"			
747	739		206° 41'	+13.6°	7.7	89° 10'	+10.7	+3.0		4836.4		-564	-478	318,365	2319,583
748	430		218° 04'	" "	10.3	88° 30'	+11.3	+1.0		4834.4		-267	-337	318,662	2319,724
749	105		206° 17'	" "	4.2	88° 30'	+2.7	-1.5		4831.9		-81	-67	318,848	2319,994
750	0				5.2	-		-5.2		4828.2	TP	0	0	318,929	2320,061
750	223		02° 12'	+13.6°	9.2	91°	-3.9	-13.1		4820.3		+215	+61	319,144	2320,122
751	552		01° 46'	" "	9.0	91°	-9.6	-78.6		4814.8		+532	+146	319,461	2320,207
752	882		01° 28' 11"	" "	7.6	91°	-15.4	-23.0		4810.4	TP	+852	+229	319,782	2320,290 STADIA.
752	882				5.0	91° 10'	-18.0	-23.0			TP				
	987		174° 44' 04" + 180°	+13.6°	12.2	89°	-17.2	-5.0			BS	+976	+143		
	987			+9.3	89° 10'	-14.4	-5.1		4805.3		BS				
753	660		171° 38'	+13.6°	7.6	89°	+11.5	+3.9		4809.2		-657	-60	320,102	2320,373
754	330		169° 11'	" "	5.4	89°	+5.8	+0.4		4805.7		-330	-16	320,429	2320,417
755	0				5.2	-		-5.2		4800.1	TP	0	0	320,259	2320,433
756	330		350 50	+13.6°	8.5	-		-8.5		4796.8		+329	+26	321,088	2320,459 AROUND 90° CORNER
757	560		18° 31'	" "	11.6	-		-11.6		4793.7		+474	+298	321,233	2320,731
758	820		35° 56'	" "	11.1	-		-11.1		4794.2		+532	+624	321,291	2321,057
759	1114		44 43	" "	12.4	81	5.6	-18.0		4787.3		+585	+948	321,344	2321,381

SURVEY NOTES-HIGH RESOLUTION DATA

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Geosource Inc.

PAGE 60 OF 60

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
11-6-82		B. Cotcamp		D. Hamilton		6834		D.H.		4	60						
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER								
WTAM		CLIFF - 7 1/2'	WTAM	EMERY					L.O. Davis								
STATION NO.	SLOPE DISTANCE	PLOTTING DISTANCE	AZIMUTH FROM MAGNETIC NORTH	DEC	ROD READING	VERTICAL ANGLE	VERTICAL CHANGE	DIFFERENCE IN ELEVATION	ELEVATION OF INSTRUMENT	ELEVATION OF STATION	BS X TP	NORTH + SOUTH -	EAST + WEST -	COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
									4805.3								
760	1426		49° 37'	+13.8	6.2	90° 40'	-16.6	-22.8		4782.5		+643	+1273	321,402	2321,706		
761	1740		53° 10'	" "	9.0	90° 50'	-25.3	-34.3		4771.0		+686	+1599	321,445	2322,032		E.O.L LINE #4
Bm	1198		38° 02' 18"	13.8	11.3	-		-11.3		4794.0	Bm	+744	+939	321,505	2321,370		u.s.g.s. Bm EL. 4794.0
Bm	1198				5.3	Bm	-6.0	-11.3			Bm	+2	-2				36 Fmk 1969 HORIZ y = +36' CORR. X = -2'