

DATE 2/1/79		INSTRUMENT MAN G. Cotcamp		ROD MAN R. Hulsey		PARTY NUMBER 6834		NOTES CHECKED BY RSD			LINE NO. 2		PAGE 1 of 38			
AREA TENNESSEE		TOPO MAP Vonnore/Rafter/Mt Vernon		STATE Tennessee		COUNTY Monroe		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.		Y	X
1										812.3				408,230	2,521,628	
	440		69°37' +180°	-3.0°	+138	90°30'	+3.8	+17.6	829.9		BS	-179	-402			4-Way Intersect.
	440				+12.6	90°40'	+5.1	+17.7		BS						
2	220		69°37'	-3.0°	5.0	-		-5.0	824.9			+89	+201	408,140	2,521,427	note-bridge out over
3	0				5.4	-		-5.4	824.5		X	0	0	408,051	2,521,226	Tellico River, station
4	220		246°58'	-3.0°	5.7	92°-	-7.7	-13.4	816.5			-97	-198	407,954	2,521,028	L is on east bank
5	440		" "	-3.0°	6.9	92°-	-15.3	-22.2	807.7			-193	-395	407,858	2,520,831	at 4-way Intersection.
6	660		246°58'	-3.0°	2.7	91°30'	-17.3	-20.0	809.9		TP	-290	-593	407,761	2,520,633	
6	660				6.5	91°10'	-13.4	-19.9		TP						
	440		61°37' +180°	-3.0°	+5.7	-		+5.7	815.6		BS	-229	-376			sta. 3+4 Rafter Quad.
	440				+7.9	TH	-2.2	+5.7		BS						
7	220		61°37'	-3.0°	5.7	-		-5.7	809.9			+115	+188	407,647	2,520,445	
8	0				5.4	-		-5.4	810.2		X	0	0	407,532	2,520,257	
9	220		254°5.1'	-3.0°	2.6	-		-2.6	813.0			-71	-208	407,461	2,520,049	
10	440		" "	-3.0°	3.1	89°-	+7.7	+4.6	820.2			-143	-416	407,389	2,519,841	
	470		257°27.5'	-3.0°	6.0	88°40'	+10.9	+4.9	820.5			-126	-453	407,406	2,519,804	Y-intersect (new road)
11	660		254°5.1'	-3.0°	12.8	88°30'	+12.3	+4.5	820.1			-214	-624	407,318	2,519,633	
12	880		254°5.1'	-3.0°	11.1	88°50'	+17.9	+6.8	822.4		TP	-285	-832	407,247	2,519,425	
12	880				14.6	88°36'	+21.5	+6.9		TP						
	220		78°41' +180°	-3.0°	+6.2	-		+6.2	828.6		BS	-54	-213			
	220				+7.3	TH	-1.1	+6.2		BS						

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE		
2/1/79		G. Cotcamp		R. Flowers		6834		✓ 052		2		2		
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER		
Tennessee		Mount Vernon		Tennessee		Monroe						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.	
									822.6					
13	0				5.4	-		-5.4		823.2	TP	0	0	407,193 2,519,212
14	216		243° 28.6'	-3.0°	0.6	-		-0.6		828.0	TP	-106	-188	407,087 2,519,024 curve
14	216				1.7	TH	+1.1	-0.6			TP			
	82		66° 30.6' +180°	-3.0°	+4.8	-		+4.8	832.8		BS	-37	-73	
	82				+5.2	TH	-0.4	+4.8			BS			
π	0				5.4	-		-5.4		827.4	TP	0	0	407,050 2,518,951 split sta - sharp curve
15	139		260° 52.5'	-3.0°	12.2	-		-12.2		820.6		-29	-136	407,021 2,518,815 (Data)
BM	300		259° 18.3'	-3.0°	12.3	-		-12.3		820.5		-71	-291	406,979 2,518,660 TVA INT 1140 ckr. 820.5
16	357		254° 46.8'	-3.0°	6.2	91° 20'	-8.3	-14.5		818.3	TP	-112	-339	406,939 2,518,613
16	357				6.8	91° 14'	-7.7	-14.5			TP			
	440		61° 31' +180°	-3.0°	+5.4	92°	+15.3	+20.7	839.0		BS	-230	-375	
	440				+9.3	91° 30'	+11.5	+20.0			BS			
17	220		61° 31'	-3.0°	14.3	91°	-3.8	-18.1		820.9		+115	+188	406,825 2,518,426
18	0				5.4	-		-5.4		833.6	TP	0	0	406,710 2,518,238
19	220		252° 55.8'	-3.0°	1.7	-		-1.7		837.3		-75	-207	406,635 2,518,031
20	440		"	-3.0°	1.3	89°	+7.7	+6.4		845.4		-151	-413	406,559 2,517,825
21	660		252° 55.8'	-3.0°	6.4	88° 30'	+17.3	+10.9		849.9	TP	-226	-620	406,485 2,517,618
21	660				2.6	88° 50'	+13.4	+10.8			TP			
	211		59° 20.2' +180°	-3.0°	+9.2	-		+9.2	859.1		BS	-117	-176	
	211				+8.1	81°	+1.1	+9.2			BS			

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
2/1/79		G. Cotcamp		R. Flowers		6834		✓ RSE		2	3				
AREA		TOPO MAP		STATE		COUNTY		TWP	RANGE	PPM	PARTY MANAGER				
Tennessee		Mount Vernon		Tennessee		Monroe					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
									859.1						
22	0				5.4	-		-5.4		853.7	π	○	○	406,369	2,517,442
23	221	220	230° 3'	-3.0°	7.0	84° -	+23.0	+16.0		875.1	TP	-150+1	-161	406,220	2,517,281
23	221				6.3	84° 12'	+22.2	+15.9			TP				
	440		59° 13.6' +180°	-3.0°	+9.9	92° -	+15.3	+25.2	900.3		BS	-245+1	-366		
	440				+11.5	91° 24'	+10.7	+25.2			BS				
24	220		56° 55'	-3.0°	8.5	-		-8.5		891.8		+130	+178	406,106	2,517,093
25	0				5.4	-		-5.4		894.9	π	○	○	405,976	2,516,915
26	220		232° 50'	-3.0°	3.0	-		-3.0		897.3		-142	-168	405,834	2,516,747
27	438		228° 27'	-3.0°	3.7	89° 30'	+3.8	+0.1		900.4	TP	-307+1	-312	405,670	2,516,603 curve
27	438				7.5	89° -	+7.6	+0.1			TP				
	220		45° 50' +180°	-3.0°	+12.3	-		+12.3	912.7		BS	-161+2	-150		
	220				+13.4	TH	-1.1	+12.3			BS				
28	0				5.4	-		-5.4		907.3	π	○	○	405,511	2,516,453
29	220		235° 11'	-3.0°	1.4	89° -	+3.8	+2.4		915.1	TP	-135+2	-174	405,378	2,516,279
29	220				0.8	89° 10'	+3.2	+2.4			TP				
	220		41° 1.6' +180°	-3.0°	+14.9	91° -	+3.8	+18.7	933.9		BS	-173+2	-136		
	220				+11.2	92° -	+7.7	+18.9	+18.8		BS				
30	0				5.4	-		-5.4		928.5	π	○	○	405,207	2,516,143
31	220		209° 44'	-3.0°	1.1	87° -	+11.5	+10.4		944.3		-196	-99	405,011	2,516,044

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
2/1/79		G. Cotcamp		R. Hulsey		6834		✓ 032		2		4			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee		Mount Vernon		Tennessee		Monroe								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
									933.9						
32	440	439	207°26.4'	-3.0°	10.1	87°	+23.0	+12.9		946.8	TP	-400+2	-182	404,809	2,515,961
32	440				12.7	86°40'	+25.5	+12.8			TP				
	660		27°36.7'+180°	-3.0°	+11.4	88°	-23.0	-11.6	935.1		BS	-600+2	-275		
	660				+5.5	88°30'	-17.3	-11.8	935.1		BS				
33	440		27°36.7'	-3.0°	2.3	89°	+7.7	+5.4		940.5		+400	+183	404,611	2,515,869
34	220		" "	-3.0°	2.0	-		-2.0		933.1		+200	+92	404,411	2,515,778
35	0				5.4	-		-5.4		929.7	TP	0	0	404,211	2,515,686
36	220		212°	-3.0°	13.3	-		-13.3		921.8		-192	-107	404,019	2,515,579
37	440		" "	-3.0°	10.0	91°	-7.7	-17.7		917.4		-385	-213	403,826	2,515,473
38	660		209°28.4'	-3.0°	7.6	91°30'	-17.3	-24.9	-24.8	910.3	TP	-591+2	-294	403,622	2,515,392
38	660				9.0	91°22'	-15.7	-24.7			TP				
	660		11°18'+180°	-3.0°	+5.4	88°	-23.0	-17.6	892.7		BS	-653+2	-95		
	660				+2.3	88°16'	-20.0	-17.7			BS				
39	440		11°18'	-3.0°	7.1	88°	+15.3	+8.2		900.9		+435	+64	403,406	2,515,361
40	220		" "	-3.0°	3.9	88°	+7.7	+2.8		896.5		+218	+32	403,189	2,515,329
41	0				5.4	-		-5.4		887.3	TP	0	0	402,971	2,515,297
	71		212°11.8'	-3.0°	7.4	-		-7.4		885.3		-62	-35	402,909	2,515,262
42	196		286°57.3'	-3.0°	4.6	-		-4.6		888.1	TP	+47	-190	403,018	2,515,107
42	196				5.6	TH	+1.0	-4.6			TP				

(scaled)
402,910 = 2,515,255
T-intersect.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE			
2/1/79		G. Cotcamp		R. Flowers		6834		VED GWC		2	5			
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER		
Tennessee		Mount Vernon		Tennessee		Monroe						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.	
42										888.1				
	440		110° 31.7' +180°	-3.0°	+13.3	-		+13.3	901.4		BS	+133	-420	
	440				+11.1	BH	+2.2	+13.3			BS			
43	220		102° 28'	-3.0°	9.4	-		-9.4	892.0			-36	+217	403,115 2,514,904
	41		115° 39'	-3.0°	5.5	-		-5.5	895.9			-16	+38	403,135 2,514,725
44	0				5.4	-		-5.4	896.0		TP	0	0	403,151 2,514,687
45	220		258° 7'	-3.0°	5.8	-		-5.8	895.6			-57	-213	403,094 2,514,474
46	436		251° 19.8'	-2.7°	2.8	-		-2.8	898.6		TP	-159+3	-406	402,995 2,514,281
46	436				5.0	TH	+2.2	-2.8			TP			curve
	660		56° 31.9' +180	-2.7°	+12.6	91°	+11.5	+24.1	922.7		BS	-390+3	-533	
	660				+10.7	91° 10'	+12.4	+24.1			BS			
47	440		56° 31.9'	-2.7°	6.1	91° 30'	-11.5	-17.6	905.1			+260	+355	402,868 2,514,103
48	220		" "	-2.7°	5.9	91° 30'	-5.8	-11.7	911.0			+130	+178	402,738 2,513,924
49	0				5.4	-		-5.4	917.3		TP	0	0	402,608 2,513,748
50	220		234° 27.2'	-2.7°	2.5	-		-2.5	920.2			-136	-173	402,472 2,513,575
51	440		" "	-2.7°	2.1	-		-2.1	920.6			-272	-346	402,336 2,513,402
52	660		234° 27.2'	-2.7°	2.2	TH	+3.3	+1.1	923.8		TP	-409+3	-518	402,202 2,513,230
52	660				6.6	89° 30'	+7.7	+1.1			TP			
	440	439	60° 24.6' +180	-2.7°	+3.5	98°	+22.9	+26.4	950.2		BS	-235+2	-371	
	440				+2.2	93° 10'	+24.3	+26.5			BS			
53	220		60° 24.6'	-2.7°	6.7	93° 10'	-12.1	-18.8	931.4			+118	+186	402,087 2,513,045

(scaled)
403,135 + 2,514,725
T-rd (north)
Horizontal Corr.
Y - 21' X - 1'

F.O.D.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
2/2/79		R. Flowers		R. Hulsey		6834		✓ R52		2	6					
AREA		TOPO MAP		STATE	COUNTY	TWP	RANGE	PPM	PARTY MANAGER							
Tennessee		Mount Vernon		Tennessee	Monroe				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
									950.2						(scaled) 402,000 + 2,512,920	
51	47		73° 206'	-2.7°	5.5	93° 10'	-2.6	-8.1		942.1		+16	+44	401,985	2,512,903	Frd (north)
54	0				5.4	-		-5.4		944.8	X	0	0	401,969	2,512,859	
55	220	219	245° 53.6'	-2.7°	7.7	86° 20'	+14.0	+6.3		956.5		-99	-195	401,870	2,512,664	
56	440	439	245° 53.6'	-2.7°	9.4	87° 20'	+20.4	+11.0		961.2	TP	-198+2	-392-2	401,773	2,512,465	
56	440				10.6	87° 10'	+21.7	+11.1			TP					
	660		63° 1.8' + 180	-2.7°	+6.8	-		+6.8	968.0		BS	-327+2	-573-3			
	660				+10.1	TH	-3.3	+6.8			BS					
57	440		63° 1.8'	-2.7°	9.1	-		-9.1		958.9		+218	+382	401,666	2,512,271	
58	220		" "	-2.7°	11.8	-		-11.8		956.2		+109	+191	401,557	2,512,080	
59	0				5.4	-		-5.4		962.6	X	0	0	401,448	2,511,889	
60	220		234° 46.3'	-2.7°	5.5	87°	+11.5	+6.0		974.0		-135	-174	401,313	2,511,715	
61	440	439	234° 46.3'	-2.7°	9.6	87°	+23.0	+13.4		981.4		-270	-346	401,178	2,511,543	
62	660	659	232° 16.5'	-2.7°	4.6	87° 40'	+26.8	+22.2		990.2	TP	-427+2	-502-3	401,023	2,511,384	
62	660				6.5	87° 30'	+28.8	+22.3			TP					
	440		42° 28.7' + 180	-2.7°	+13.5	-		+13.5	1003.7		BS	-338+2	-282-3			
	440				+11.3	BH	+2.2	+13.5			BS					
63	220		42° 28.7'	-2.7°	7.8	-		-7.8		995.9		+169	+141	400,856	2,511,240	
64	0				5.4	-		-5.4		998.3	X	0	0	400,687	2,511,099	
65	220		234° 50'	-2.7°	11.9	-		-11.9		991.8		-135	-174	400,552	2,510,925	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
2/2/79		B. Flowers		R. Hulsey		6934		R32		2	7				
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER					
Tennessee		Mt. Vernon		Tennessee	Monroe					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
									1003.7						
66	439		234° 50'	-2.7°	7.8	92°	-15.3	-23.1		990.6	TP	-269+2	-347-3	400,420	2,510,749 opp side rd
66	439				6.4	92° 10'	-11.6	-23.0			TP				
	440	439	59° 57.1' +180	-2.7°	+8.8	86° 30'	-26.8	-18.0	962.6		BS	-237+2	-369-3		
	440				+7.5	86° 40'	-25.5	-18.0			BS				
BM	315		60° 1.1'	-2.7°	2.3	87°	+16.5	+14.2		976.8	BM	+170	+265	400,355	2,510,642 TVA -0.7 B.M. LHT 1342 ch. 927.5
BM	315				1.9	87° 5'	+16.0	+14.1			BM				
67	220		59° 57.1'	-2.7°	3.6	87°	+11.5	+7.9		970.5		+119	+185	400,304	2,510,562
68	0				5.4	-		-5.4		957.2	T	0	0	400,185	2,510,377
69	220		220° 13.9'	-2.7°	11.1	89°	+3.8	-7.3		955.3		-174	-134	400,011	2,510,243
70	440		220° 13.9'	-2.5°	2.7	89°	+7.7	+5.0		967.6	TP	-348+2	-269-3	399,839	2,510,105
70	440				1.4	89° 10'	+6.4	+5.0			TP				
	220	219	61° 26.3' +180	-2.5°	+2.9	94°	+15.3	+18.2	985.8		BS	-113+2	-188-3		
	220				+2.2	94° 10'	+15.9	+18.1			BS				
71	0				5.4	-		-5.4		980.4	T	0	0	399,728	2,509,914
72	220	219	255° 47.6'	-2.5°	6.0	86°	+15.3	+9.3		995.1		-63	-210	399,665	2,509,704
73	440	439	" "	-2.5°	9.9	86°	+30.6	+20.7		1006.5		-126	-420	399,602	2,509,494
74	660	659	255° 47.6'	-2.5°	11.0	87°	+34.5	+23.5		1009.3	TP	-189+2	-631-3	399,541	2,509,280
74	660				9.1	87° 10'	+32.6	+23.5			TP				
	440		77° 55.0' +180	-2.5°	+0.8	99°	-7.7	-6.9			BS	-111+2	-426-3		
	440				+2.2	88° 50'	-9.0	-6.8	1002.5		BS				

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
2/2/79		R. Flowers		R. Hulsey		6834		VRSZ		2		8							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
Tennessee		Mount Vernon		Tennessee		Monroe								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				
									1002.5										
75	220		77° 55'	-2.5°	4.5	89° -	+3.8	-0.7		1001.8		+55	+213	399,487	2,509,064				
76	0				5.4	-		-5.4		997.1	T	0	0	399,432	2,508,851				
77	220		241° 29.3	-2.5°	11.2	89° -	+3.8	-7.4		995.1		-113	-189	399,319	2,508,662				
78	435		234° 57.7	-2.5°	4.6	90° 30'	-3.8	-8.4			TP	-265+2	-345-3	399,169	2,508,503				
78	435				5.8	90° 20'	-2.5	-8.3		994.2	TP								
	220		38° 42.5 +180	-2.5°	+11.0	-		+11.0	1005.2		BS	-178+2	-130-3						
	220				+12.1	TH	-1.1	+11.0			BS								
79	0				5.4	-		-5.4		999.8	T	0	0	398,993	2,508,370				
80	225		234° 26.7	-2.5°	1.3	87° 40'	+9.4	+8.1	+8.0	1013.2	TP	-139+2	-177-3	398,856	2,508,190				Curve, opp side sta.
80	225				2.0	87° 30'	+9.8	+7.8			TP								
	222		94° 0.9 +180	-2.5°	+6.2	-		+6.2	1019.4		BS	+6+2	-222-3						
	222				+7.3	TH	-1.1	+6.2			BS								
81	0				5.4	-		-5.4		1014.0	T	0	0	398,864	2,507,965				
82	220		301° 3.5'	-2.5°	12.8	-		-12.8		1006.6		+105	-193	398,969	2,507,772				
83	435		301° 3.5'	-2.5°	8.5	91° 30'	-11.4	-19.9		999.5	TP	+208+2	-382-3	399,074	2,507,580				
83	435				9.8	91° 20'	-10.1	-19.9			TP								
	175		49° 42.5 +180	-2.5°	+3.0	87° -	-9.1	-6.1	993.4		BS	-119+2	-128-3						
	175				+2.5	87° 10'	-8.6	-6.1			BS								
TP	188		9° 52.3	-2.5°	28	88° 40'	+4.4	+1.6		995.0		+186	+24	399,143	2,507,473				399,135 + 2,507,490 T rd

DATE 2/2/79	INSTRUMENT MAN R. Flowers	ROD MAN R. Hulsey	PARTY NUMBER 6874	NOTES CHECKED BY ✓ 022	LINE NO.	PAGE 9
AREA Tennessee	TOPO MAP Mt. Vernon	STATE Tennessee	COUNTY Monroe	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				
									993.4										
BM	189		357° 57.4'	-2.5°	2.0	98°	+6.6	+4.6		998.0	BM	+188	-15	399,145	2,507,434			TVA elevation BM 1343 998.0	
BM	189				4.2	87° 20'	+8.8	+4.6			BM								
84	0				5.4	-		-5.4		988.0	T	0	0	398,957	2,507,449				
85	220		178° 5.4'	-2.5°	8.7	92° -	-7.7	-16.4		977.0		-219	+17	398,738	2,507,466				
86	438		178° 5.4'	-2.5°	7.8	92° -	-15.3	-23.1		970.3	TP	-437+2	+34-3	398,522	2,507,480				
86	438				6.6	92° 10'	-16.5	-23.1			TP								
	660		352° 24.3'-180	-2.5°	+6.0	89° -	-11.5	-5.5	964.8		BS	-650+2	+116-3						
	660				+4.1	89° 10'	-9.6	-5.5			BS								
87	440		352° 24.3'	-2.5°	5.9	89° 20'	+5.1	-0.8		964.0		+433	-77	398,307	2,507,516				
88	220		" "	-2.5°	3.5	89° 20'	+2.6	-0.9		963.9		+217	-39	398,091	2,507,554				
89	0				5.4	-		-5.4		959.4	T	0	0	397,874	2,507,593				
90	220		170° 16.1'	-2.5°	12.7	-		-12.7		952.1		-215	+47	397,659	2,507,640				
91	430		170° 16.1'	-2.5°	14.6	-		-14.6		950.2	TP	-420+3	+91-3	397,457	2,507,681				
91	430				12.4	BH	-2.2	-14.6			TP								
	220		338° 35.3'-180	-2.5°	+1.0	-		+1.0	951.2		BS	-201+3	+89-3						
	220				+2.1	TH	-1.1	+1.0			BS								
92	0				5.4	-		-5.4		945.8	T	0	0	397,259	2,507,767				
92	55		75° 39.5'	-2.5°	6.8	-		-6.8		944.4		+16	+53	397,275	2,507,820			397,275+2,507,820 T-intersect (scaled)	
93	220		222° 57.5'	-2.5°	3.5	85° 50'	+15.9	+12.4		963.6	TP	-167	-143	397,092	2,507,624			Horiz. Corr. y-53', x-59'	
93	220				4.1	85° 40'	+16.6	+12.5			TP								

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
2/2/79		R. Flouris		R. Hulsey		6834		JBS		2		10			
AREA		TO PO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee		Mt. Vernon		Tennessee		Monte								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
									963.6						
220			23° 16.7' +180	-3.0°	+12.4	-		+12.4	976.0		BS	-206+2	-76+3		
220					+13.5	TH	-1.1	+12.4			BS				
94	0				5.4	-		-5.4	970.6		T	0	0	396,888	2,507,551
95	220		201° 438'	-3.0°	9.3	-		-9.3	966.7			-208	-71	396,680	2,507,480
96	440		201° 428'	-3.0°	10.1	-		-10.1	965.9		TP	-417+2	-14+3	396,473	2,507,413
96	440				12.3	TH	+2.2	-10.1			TP				
221			14° 16.6' +180	-3.0°	+0.6	TH	-1.1	-0.5	965.4		BS	-217+2	-43+3		
221					+1.4	89° 30'	-1.9	-0.5			BS				
97	0				5.4	-		-5.4	960.0		T	0	0	396,258	2,507,373
98	220		208° 49.9'	-3.0°	10.0	91°	-3.8	-13.8	951.6			-198	-96	396,060	2,507,277
99	439		208° 49.9'	-3.0°	12.1	91°	-7.7	-19.8	945.6		TP	-395+2	-19+3	395,865	2,507,185
99	439				10.8	91° 10'	-8.9	-19.7			TP				
	438		18° 48.2' +180	-3.0°	+4.6	89°	-7.6	-3.0	942.6		BS	-421+2	-119+3		
	438				+3.3	89° 10'	-6.4	-3.1			BS				
100	220		18° 48.2'	-3.0°	5.9	89°	+3.8	-2.1	940.5			+212	+60	395,658	2,507,129
101	0				5.4	-		-5.4	937.2		T	0	0	395,446	2,507,069
102	220		218° 55.1'	-3.0°	10.9	-		-10.9	931.7			-178	-129	395,268	2,506,940
103	440		" "	-3.0°	8.4	91°	-7.7	-16.1	926.5			-356	-258	395,090	2,506,811
104	660		" "	-3.0°	8.5	91°	-11.5	-20.0	922.6			-535	-387	394,911	2,506,682

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
2/5/79		B. Flowers		B. Hulsey		6834		V.B. 2		2		11			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee		Mt. Vernon		Tennessee		Monroe								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
									942.6						
105	880		218 55.1'	-3.0°	10.7	91°-	-15.4	-26.1		916.5	TP	-713+2	-516+3	394,735	2,506,556
105	880				8.2	91°10'	-17.9	-26.1			TP				
	430		38° 47.4' +180	-3.0°	+4.4	89°-	-7.5	-3.1	913.4		BS	-349+2	-251+3		Curve
	430				+3.1	89°10'	-6.3	-3.2			BS				
≠	335		36° 8.1'	-3.0°	4.7	89°10'	+4.9	+0.2		913.6		+281	+183	394,669	2,506,491 4-way Intersect.
106	220		38° 47.4'	-3.0°	6.1	89°10'	+3.2	-2.9		910.5		+178	+129	394,566	2,506,437
107	0				5.4	-		-5.4		908.0	TP	0	0	394,388	2,506,308 opp. sta.
108	221		211° 32.3'	-3.0°	11.7	-		-11.7		901.7	TP	-194+1	-106+1	394,195	2,506,203 Curve
108	221				12.8	TH	+1.1	-11.7			TP				
	440		56° 55.3' +180	-3.0°	+10.4	BH	+2.2	+12.6	914.3		BS	-259+1	-356+1		
	440				+3.0	91°-	+7.7	+12.7			BS				
109	220		56° 55.3	-3.0°	9.0	92°-	-7.7	-11.7		897.6		+130	+178	394,067	2,506,026
110	0				5.4	-		-5.4		908.6	TP	0	0	393,937	2,505,848
111	224	223	253° 47.1'	-3.0°	8.9	86°-	+15.6	+6.7		921.0	TP	-73+1	-211+1	393,865	2,505,638
111	224				8.2	86°10'	+14.9	+6.7			TP				
	220		96° 32.8' +180	-3.0°	+8.7	-		+8.7	929.7		BS	+14+1	-220+1		
	220				+9.8	TH	-1.1	+8.7			BS				
112	0				5.4	-		-5.4		924.3	TP	0	0	393,880	2,505,419
113	220		287° 2.2'	-3.0°	4.5	-		-4.5		925.2	TP	+53+1	-213	393,934	2,505,206
113	220				5.6	TH	+1.1	-4.5			TP				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
2/5/78		R. Flowers		R. Hulsy		6834		VRS		2	12					
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER				
Tennessee		Mount Vernon		Tennessee		Monroe						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	
										925.2						
	205		78° 6.1' +180	-3.0°	3.2	-		+3.2	928.4		BS	-53+1	-198			Curve
	205				4.2	TH	-1.0	+3.2			BS					
114	0				5.4	-		-5.4		923.0	X	0	0	393,882	2,505,008	
115	220		240° 42.4'	-3.0°	11.1	-		-11.1		917.3	TP	-118+1	-186	393,765	2,504,822	
115	220				12.2	TH	+1.1	-11.1			TP					
	430	429	87° 40.6' +180	-3.0°	+14.1	87° 10'	-21.2	-7.1	910.2		BS	-40+1	-427			
	430				+12.9	87° 20'	-20.0	-7.1			BS					
116	220		87° 40.6'	-3.0°	5.9	-		-5.9		904.3		+20	+219	393,746	2,504,614	
117	0				5.4	-		-5.4		904.8	X	0	0	393,726	2,504,395	Opp. Sta.
118	221		262° 37.1'	-3.0°	5.6	-		-5.6		904.6	TP	-40+1	-217	393,687	2,504,178	Opp. Sta.
118	221				6.7	TH	+1.1	-5.6			TP					
	221		110° 6.7' +180	-3.0°	+3.3	-		+3.3	907.9		BS	+65+1	-211			
	221				+4.4	TH	-1.1	+3.3			BS					
119	0				5.4	-		-5.4		902.5	X	0	0	393,753	2,503,967	
120	220		260° 24'	-3.0°	2.6	-		-2.6		905.3		-49	-214	393,704	2,503,753	
121	430		260° 24'	-3.0°	3.9	-		-3.9		904.0	TP	-96+1	-419	393,658	2,503,548	
121	430				6.1	TH	+2.2	-3.9			TP					
	660	659	50° 47.7' +180	-3.0°	+3.1	93° -	+34.5	+39.6	943.6		BS	-443+1	-489			
	660				+3.1	93° 10'	+36.4	+39.5			BS					
71	628	627	51° 21.0	-3.0°	7.9	92° 50'	-31.0	-38.9		904.7		+417	+467	393,633	2,503,528	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
2/5/79		R. Flowers		R. Hulsey		6834		R39		2		14			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee		Mt. Vernon		Tennessee		Monroe								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
									954.4						
132	220		54° 40.7'	-2.5°	12.8	-		-12.8		941.6		+135	+174	392,094	2,501,924
133	0				5.4	-		-5.4		949.0	TP	0	0	391,959	2,501,750
134	220		233° 39.7'	-2.5°	6.6	-		-6.6		947.8		-138	-171	391,821	2,501,579
135	440		233° 39.7'	-2.5°	13.8	BH	-2.2	-15.7		938.7	TP	-276	-343	391,683	2,501,407
135	440				11.9	90.30'	-3.8	-15.7			TP				
	660		56° 28' +180	-2.5°	+6.5	88°-	-23.0	-16.5	922.2		BS	-391	-532		
	660				+4.6	88° 10'	-21.1	-16.5			BS				
136	440		56° 8.8'	-2.5°	13.3	88°-	+15.3	+2.0		924.2		+261	+354	391,553	2,501,229
137	220		" "	-2.5°	10.1	-		-10.1		912.1		+130	+177	391,422	2,501,052
137	50		63° 12.3'	-2.5°	6.1	-		-6.1		916.1		+24	+44	391,316	2,500,919
138	0				5.4	-		-5.4		916.8	TP	0	0	391,292	2,500,875
139	220		241° 4.2'	-2.5°	3.2	-		-3.2		919.0		-115	-188	391,177	2,500,687
140	440		241° 4.2'	-2.5°	4.5	89°-	+7.7	+3.2		925.4	TP	-229	-375	391,063	2,500,500
140	440				3.3	89° 10'	+6.4	+3.1			TP				
	660		50° 5.8' +180	-2.5°	+1.1	-		+1.1	926.5		BS	-445	-487		
	660				+4.4	T.H	-3.3	+1.1			BS				
141	440		50° 5.8'	-2.5°	6.1	-		-6.1		920.4		+297	+325	390,915	2,500,338
142	220		" "	-2.5°	7.4	-		-7.4		919.1		+148	+162	390,766	2,500,175
143	0				5.4	-		-5.4		921.1	TP	0	0	390,618	2,500,013
144	220		222° 48.6	-2.5°	6.7	-		-6.7		919.8		-168	-142	390,450	2,499,871

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
2/5/79		B. Flowers		A. Hulsey		6834		v/R32		2		15							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
Tennessee		Mt Vernon		Tennessee		Monroe								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				
									926.5										
145	440		220° 50.4'	-2.3°	2.1	-		-2.1		924.4		-344	-274	390,274	2,499,739				
146	660		" "	-2.3°	4.1	-		-4.1		922.4		-516	-411	390,102	2,499,602				
147	880		" "	-2.3°	5.6	-		-5.6		920.9		-688	-548	389,930	2,499,465				
148	1100		220° 50.4'	-2.3°	4.5	-		-4.5		922.0	TP	-860	-685	389,758	2,499,328				
148	1100				9.9	TH	+5.5	-4.4			TP								
	1100		49° 12.4' +180	-2.3°	+6.2	-		+6.2	928.2		BS	-752	-803						
	1100				+11.6	TH	-5.5	+6.1			BS								
149	880		49° 12.4'	-2.3°	2.5	-		-2.5		925.7		+601	+643	389,607	2,499,168				
150	660		" "	-2.3°	0.7	-		-0.7		927.5		+451	+482	389,457	2,499,007				
151	440		" "	-2.3°	1.9	-		-1.9		926.3		+301	+321	389,307	2,498,846				
152	220		" "	-2.3°	4.5	-		-4.5		923.7		+150	+161	389,156	2,498,686				
153	0				5.4	-		-5.4		922.8	π	0	0	389,006	2,498,525				
154	220		227° 3.1'	-2.3°	7.1	-		-7.1		921.1		-156	-155	388,850	2,498,370				
155	435		227° 3.1'	-2.3°	4.2	-		-4.2		924.0	TP	-309	-306	388,697	2,498,219	Curve			
155	435				6.4	TH	+2.2	-4.2			TP								
	440		53° 39.3' +180	-2.3°	+10.0	-		+10.0	934.0		BS	-275	-344						
	440				+12.2	JH	-2.2	+10.0			BS								
156	220		53° 39.3'	-2.3°	6.9	-		-6.9		927.1		+137	+172	388,559	2,498,047				
157	0				5.4	-		-5.4		928.6	π	0	0	388,422	2,497,875				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
2/5/79		R. Flowers		R. Hulsey		6834		V. B. Hulsey		2	16						
AREA		TOPO MAP		STATE		COUNTY		RANGE		PARTY MANAGER							
Tennessee		Mt Vernon		Tennessee		Macon				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		
									934.0								
158	215		245° 30.7'	-2.3°	5.7	-		-5.7		928.3	TP	-96	-192	388,326	2,497,683		
158	215				6.8	TH	+1.1	-5.7			TP						
	440		32° 8.6' +180	-2.3°	+13.7	BH	+2.2	+15.9	944.2		BS	-382	-219				
	440				+12.1	90° 30'	+3.8	+15.9			BS						
159	220		32° 8.6'	-2.3°	12.9	91° -	-3.8	-16.7		927.5		+191	+109	388,135	2,497,573		
160	0				5.4	-		-5.4		938.8	π	0	0	387,944	2,497,464	opp sta	
161	225		260° 55.4'	-2.3°	13.8	-		-13.8		930.4	TP	-44	-221	387,900	2,497,243		
161	225				14.9	TH	+1.1	-13.8			TP						
	440		47° 43.8' +180	-2.3°	+10.9	-		+10.9	941.3		BS	-309	-313				
	440				+13.1	TH	-2.2	+10.9			BS						
162	220		47° 43.8	-2.3°	6.6	-		-6.6		934.7		+154	+157	387,745	2,497,087		
163	0				5.4	-		-5.4		935.9	π	0	0	387,591	2,496,930		
164	220		222° 59.3'	-2.3°	10.0	-		-10.0		931.3		-167	-143	387,424	2,496,787		
165	440			-2.3°	5.7	-		-5.7		935.6		-334	-287	387,257	2,496,643		
166	660		222° 59.3'	-2.3°	10.5	-		-10.5		930.8	TP	-500	-430	387,091	2,496,500		
166	660				7.2	BH	-3.3	-10.5			TP						FOD
	440		38° 11.9' +180	-2.3°	+8.3	TH	-2.2	+6.1			BS	-356	-258				
	440				+4.0	BH	+2.2	+6.2	937.0		BS						
167	220		38° 11.9'	-2.3°	8.7	-		-8.7		928.3		+178	+129	386,913	2,496,371		
168	0				5.4	-		-5.4		931.6	π	0	0	386,735	2,496,242		

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
2/6/79		B. Flowers		R. Hulsey		6834		V. R. Hulsey		2		17			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee		Mt Vernon		Tennessee		Monroe								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
									937.0						
169	220		222° 22.6'	-2.1°	7.1	-		-7.1		929.9		-168	-142	386,567	2,496,100
170	443		222° 22.6'	-2.1°	4.6	-		-4.6		932.4	TP	-338	-286	386,397	2,495,956
170	443				6.8	TH	+2.2	-4.6			TP				Opp. Sta Curve
	224		98° 20.4' +180	-2.1°	+7.3	-		+7.3	939.7		BS	+24	-223		
	224				+8.4	TH	-1.1	+7.3			BS				
171	205		98° 51.4'	-2.1°	7.7	-		-7.7		932.0		-24	+204	386,397	2,495,937
171	0				5.4	-		-5.4		934.3	T	0	0	386,421	2,495,733
172	220		221° 32.5'	-2.1°	4.2	88°	+7.7	+3.5		943.2		-170	-140	386,251	2,495,593
173	430		221° 32.5'		2.3	89°	+7.5	+5.2		944.9	TP	-332	-273	386,089	2,495,460
173	430				1.1	89° 10'	+6.3	+5.2			TP				
	222		17° 47.9' +180	-2.1°	+5.0	93°	+11.6	+16.6	961.5		BS	-214	-60		
	222				+4.3	93° 10'	+12.2	+16.5			BS				
174	0				5.4	-		-5.4		956.1	T	0	0	385,875	2,495,400
175	220		220° 23.4'	-2.1°	12.9	88°	+7.7	-5.2		956.3	TP	-173	-136	385,702	2,495,264
175	220				12.3	88° 10'	+7.0	-5.3			TP				Opp. Sta
	221		54° 42.5' +180	-2.1°	+0.8	89°	-3.9	-3.1			BS	-134	-176		
	221				+5.4	87° 50'	-8.4	-3.0	953.3		BS				
176	0				5.4	-		-5.4		947.9	T	0	0	385,568	2,495,088
177	210		208° 21.2	-2.1°	3.5	-		-3.5			TP	-188	-93	385,380	2,494,995
177	210				4.5	TH	+1.1	-3.4		949.9	TP				Opp. Sta

DATE 2/6/79	INSTRUMENT MAN B. Flowers	ROD MAN D. Hulsey	PARTY NUMBER 6834	NOTES CHECKED BY ✓ B. Hulsey	LINE NO. 2	PAGE 18
AREA Tennessee	TOPO MAP Mt. Vernon	STATE Tennessee	COUNTY Monroe	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			
177										949.9								
	224		53° 1.5' +180	-2.1°	+13.5	91° -	+39	+17.4	967.3		BS	-141	-174					
	224				+12.8	91° 10'	+4.6	+17.43			BS							
178	0				5.4	-		-5.4		961.9	TP	0	0	385,239	2,494,821			
179	220		241° 58.3'	-2.1°	5.9	89° -	+3.8	-2.1		965.2	TP	-110	-190	385,129	2,494,631			
179	220				5.3	89° 10'	+3.2	-2.13			TP							
	425	424	30° 34' +180	-2.1°	+8.5	87° -	-22.2	-13.7	951.5		BS	-374	-199					
	425				+7.3	87° 10'	-21.0	-137.3			BS							
17	261		22° 5.2'	-2.1°	5.0	-		-5.0		946.5		+245	+89	385,000	2,494,521	Trail (cast)	385,000 + 2,494,520 (scaled)	
180	220		22° 5.2'		7.2	-		-7.2		944.3		+207	+75	384,912	2,494,507			
181	0				5.4	-		-5.4		946.1	TP	0	0	384,755	2,494,432	opp sta		
182	222		236° 41.4'	-1.8°	5.1	87° -	+11.6	+6.5		958.0	TP	-128	-182	384,627	2,494,250			
182	222				4.5	87° 10'	+11.0	+6.5			TP							
	220		71° 32.9' +180	-1.8°	+8.3	-		+8.3	966.3		BS	-76	-206					
	220				+9.4	TH	-1.1	+8.3			BS							
183	0				5.4	-		-5.4		960.9	TP	0	0	384,551	2,494,044			
184	220		262° 46.1'	-1.8°	9.8	-		-9.8		956.5	TP	-31	-218	384,520	2,493,826			
184	220				10.9	TH	+1.1	-9.8			TP							
	413		50° 38.4 +180	-1.8°	+2.4	-		+2.4	958.9		BS	-272	-311					
	413				+4.5	TH	-2.1	+2.4			BS							
185	220		44° 14.6'	-1.8°	2.1	-		-2.1		956.8		+162	+148	384,410	2,493,663			

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
2/6/79		R. Flowers		R. Hulsey		6834		✓ R. Hulsey		2		19			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee		Mount Vernon		Tennessee		Moore								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
									958.9						
186	0				5.4			-5.4		953.5	TP	0	0	384,248	2,493,515
187	222		225° 39.1	-1.8°	6.4	-		-6.4		952.5	TP	-160	-154	384,088	2,493,361
187	222				5.3	B.14	-1.1	-6.4			TP				opp sta
	222		93° 50.3' +180	-1.8°	+7.2	88° -	-7.7	-0.5	952.0		BS	+8	-222		Curve
	222				+6.3	88° 10'	-7.1	-0.6			BS				
188	0				5.4			-5.4		946.6	TP	0	0	384,096	2,493,139
75	119		264° 21.0'	-1.8°	1.8	-		-1.8		950.2		-15	-118	384,081	2,493,021
189	150		231° 06'	-1.8°	4.5	88° -	+5.2	+0.7			TP	-98	-114	383,998	2,493,025
189	150				4.0	88° 10'	+4.8	+0.8		952.8	TP				opp sta
	220		3° 46.5' +180	-1.8°	+11.7	-		+11.7	964.5		BS	-220	-8		90° bend
	220				+12.8	TH	-1.1	+11.7			BS				
190	0				5.4			-5.4		959.1	TP	0	0	383,778	2,493,017
191	220		223° 7.5'	-1.8°	8.5	-		-8.5		956.0		-165	-145	383,613	2,492,872
192	440		"	-1.8°	11.1	-		-11.1		953.4		-330	-291	383,448	2,492,726
193	660		"	-1.8°	12.7	-		-12.7		951.8		-496	-436	383,282	2,492,581
194	715		221° 22.7'	-1.8°	13.0	-		-13.0		951.5		-551	-456	383,227	2,492,561
194	880		223° 7.5'	-1.8°	8.7	-		-8.7		955.8	TP	-661	-581	383,117	2,492,436
194	880				13.1	TH	+4.4	-8.7			TP				
	438		52° 54.5' +180	-1.8°	+13.6	BH	+2.2	+15.8	971.6		BS	-275	-341		
	438				+12.0	90° 30'	+3.8	+15.8			BS				

384,095 + 2,493,020 (scaled)
T= intersection

383,230 + 2,492,575 (scaled)
Trail (south)

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
2/6/79		R. Flowers		R. Hulsey		6834		R. Hulsey		2	20				
AREA		TOPO MAP		STATE		COUNTY		RANGE		PARTY MANAGER					
Tennessee		Mount Vernon		Tennessee		Monroe				L. 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
									971.6						
195	220		52°54.5'	-1.8°	6.1	90°30'	-1.9	-8.0		963.6		+138	+171	382,980	2,492,266
196	0				5.4	-		-5.4		966.2	T	0	0	382,842	2,492,095
197	220		220° 9.4'	-1.8°	8.6	90°30'	-1.9	-10.8		960.8		-173	-137	382,669	2,491,958
198	440		220° 9.4'	-1.8°	3.3	-		-3.3		968.3	TP	-345	-273	382,497	2,491,822
198	440				5.5	TH	+2.2	-3.3			TP				
	440		28° 55.6' +180	-1.8°	+3.2	-		+3.2	971.5		BS	-392	-201		
	440				+5.4	TH	-2.2	+3.1			BS				
199	220		28°55.6'	-1.8°	8.4	-		-8.4		963.1		+196	+100	382,301	2,491,721
200	0				5.4	-		-5.4		966.1	T	0	0	382,105	2,491,621
201	220		233° 22.4'	-1.8°	0.7	89°	+3.8	+3.1		974.6	TP	-165	-146	381,940	2,491,475
201	220				1.4	88°50'	+4.5	+3.1			TP				
	660		51° 42.4' +180	-1.8°	+1.8	91°30'	+17.3	+19.1	993.7		BS	-425	-505		
	660				+0.9	91°35'	+18.2	+19.1			BS				
202	440		51° 42.4'	-1.8°	8.4	91°	-7.7	-16.1		977.6		+283	+337	381,798	2,491,307
203	220		"	-1.8°	7.9	91°	-3.8	-11.7		982.0		+142	+168	381,657	2,491,138
204	0				5.4	-		-5.4		988.3	T	0	0	381,515	2,490,970
205	220		225° 29.5'	-1.8°	13.1	91°	-3.8	-16.9		976.8		-159	-152	381,356	2,490,818
206	440		"	-1.8°	9.0	92°	-15.3	-24.3		969.4		-318	-304	381,197	2,490,666
207	655		225° 29.5'	-1.8°	11.9	91°	-11.4	-23.3		970.4	TP	-474	-452	381,041	2,490,518
207	655				10.0	91°10'	-12.3	-23.3			TP				

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE							
2/6/79		R Flowers		B. Hulsey		6834		V R. Hulsey				21							
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER					
Tennessee		Mount Vernon		Tennessee		Monte								L. Q. 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				
207										970.4									
	425		40°49.4' +180	-1.8°	+7.5	92° -	+14.8	+22.3			BS	-330	-268						
	425				+6.3	92°10'	+16.1	+22.4	992.8		BS								
208	220		40°49.4	-1.8°	8.4	91° -	-3.8	-12.2		980.6		+171	+139	380,882	2,490,389				
209	0				5.4	-		-5.4		987.4	TP	0	0	380,711	2,490,250				
210	220		219°22.3'	-1.8°	3.3	88°20'	+6.4	+3.1		995.9		-174	-134	380,537	2,490,116				
211	440		" "	-1.8°	2.2	88°20'	+12.8	+10.6		1003.4		-349	-268	380,362	2,489,982				
212	660		219°22.3'	-1.8°	4.4	88°20'	+19.2	+14.8			TP	-523	-402	380,188	2,489,848				
212	660				6.2	88°10'	+21.1	+14.9		1007.7	TP								
	440		45°2.2' +180	-1.8°	+1.5	-		+1.5	1009.2		BS	-321	-301						
	440				+3.7	TH	-2.2	+1.5			BS								
213	220		45°2.2'	-1.8°	9.7	-		-9.7		999.5		+160	+151	380,627	2,489,698				
1F	205		46°28.6'	-1.8°	8.3	-		-8.3		1000.9		+146	+144	380,013	2,489,691			Trail (east)	(scaled)
214	0				5.4	-		-5.4		1003.8	TP	0	0	379,867	2,489,547				
215	221		231°40.9'	-1.8°	14.3	BH	-1.1	-15.4		993.8	TP	-142	-169	379,725	2,489,378				
215	221				13.5	90°30'	-1.9	-15.4			TP								
	440		64°55.5' +180	-1.8°	+3.1	-		+3.1	996.9		BS	-199	-392						
	440				+5.3	TH	-2.2	+3.1			BS								
216	220		64°55.5'	-1.8°	7.7	-		-7.7		989.2		+99	+196	379,625	2,489,182				
217	0				5.4	-		-5.4		991.5	TP	0	0	379,526	2,488,984				
218	220		247°46'	-1.8°	0.5	-		-0.5		996.4		-90	-201	379,436	2,488,785				

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

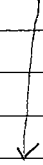
Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
2/6/79		R. Flowers		R. Hulsey		6834		V. R. Hulsey		2		22			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee				Tennessee		Monte								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 -	EAST + WEST -		Y
LAT.	DEP.	Y	X												
									996.9						
219	440		247° 46.0	-1.8°	3.8	89° 10'	+6.4	+2.6		999.5	TP	-179	-402	379,347	2,488,584
219	440				5.1	89° -	+7.7	+2.6			TP				
	220		49° 10.1 +180	-1.8°	+11.4	-		+11.4	1010.9		BS	-149	-162		
	220				+12.5	TH	-1.1	+11.4			BS				
220	0				5.4	-		-5.4		1005.5	TP	0	0	379,198	2,488,422
221	221		249° 31.3	-1.8°	4.9	86° 10'	+14.7	+9.8			TP	-84	-205	379,114	2,488,217
221	221				5.5	96° -	+15.4	+9.9		1020.8	TP				
	167		55° 7.3 +180	-1.8°	+7.2	-		+7.2	1028.0		BS	-100	-134		
	167				+8.0	TH	-0.8	+7.2			BS				
IF	120		32° 35.6	-1.8°	3.7	-		-3.7		1024.3		+105	+62	379,119	2,488,145
222	0				5.4	-		-5.4		1022.6	TP	0	0	379,014	2,488,083
223	220		216° 28.5	-1.8°	6.6	-		-6.6		1021.4		-181	-125	378,833	2,487,958
224	440		" "	-1.8°	6.7	-		-6.7		1021.3		-362	-250	378,652	2,487,833
225	660		" "	-1.8°	2.3	-		-2.3		1025.7		-543	-375	378,471	2,487,708
226	880		216° 28.5	-1.8°	0.5	TH	+4.4	+3.9		1031.9	TP	-724	-501	378,290	2,487,582
226	880				1.3	89° 40'	+5.1	+3.8			TP				
	870	869	19° 45.9 +180	-1.8°	+9.6	92° -	+30.3	+39.9			BS	-827	-268		
	870				+7.1	92° 10'	+32.9	+40.0	1071.9		BS				
227	660		16° 50'	-1.8°	13.0	92° -	-23.0	-36.0		1035.9		+637	+171	378,100	2,487,485
31	590		18° 11.1'	-1.8°	11.9	92°	-20.6	-32.6		1039.3		+566	+166	378,029	2,487,480

379,135 + 2,488,140 (scaled)
T-intersect. (Rt #68)

shooting across 90° bend

Route #68



DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
2/6/79		R. Flowers		B. Hulsey		6834		R. Hulsey		2		23			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Tennessee		Mount Vernon		Tennessee		Monroe								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
									1071.9						
228	440		13° 25'	-1.8°	10.6	92° -	-15.3	-25.9		1046.0		+431	+89	377,894	2,487,403
229	220		11° 30.0'	-1.8°	7.1	92° -	-7.7	-14.8		1057.1		+217	+37	377,680	2,487,351
230	0				5.4	-	-	-5.4		1066.5	X	0	0	377,463	2,487,314
231	220		180° 3.3'	-1.8°	1.0	-	-	-1.0		1070.9		-220	+7	377,243	2,487,321
232	440		" "	-1.8°	2.9	-	-	-2.9		1069.0		-440	+13	377,023	2,487,327
233	660		" "	-1.8°	4.8	-	-	-4.8		1067.1		-660	+20	376,803	2,487,334
234	880		" "	-1.8°	6.6	-	-	-6.6		1065.3		-880	+27	376,583	2,487,341
235	1100		180° 3.3'	-1.8°	10.1	-	-	-10.1		1061.8	TP	-1099	+33	376,364	2,487,347 last sta. on Rt. #68
235	1100				6.9	90° 10'	-3.2	-10.1			TP				
	220		27° 48.9 + 110	-1.8°	+9.6	-	-	+9.6			BS	-198	-96		
	220				+10.8	TH	-1.1	+9.7	1071.5		BS				
75	200		33° 42.3'	-1.8°	10.2	-	-	-10.2		1061.3		+170	+106	376,336	2,487,357 Y-intersect.
236	0				5.4			-5.4		1066.1	X	0	0	376,166	2,487,251 Town of Mount Vernon
237	220		209° 53'	-1.8°	4.2	92° -	-7.7	-11.9		1059.6		-194	-104	375,972	2,487,147 ↓
238	430		204° 35.0'	-1.8°	14.9	TH	-2.2	-16.9		1054.6	TP	-396	-167	375,770	2,487,084
238	430				13.1	90° 30'	-3.8	-16.9			TP				FOOT RECK
	213		23° 15' + 180°	-1.8°	+9.9	87° -	-11.1	-1.2	1053.4		BS	-198	-78		CURVE
	213				+7.0	87° 46'	-8.3	-1.3			BS				
239	0				5.5	-	-	-5.5		1047.9	X	0	0	375,572	2,487,006

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE		
2/8/79		G Cotcamp		R Hulsey		6834		R. Hulsey		2		24		
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER		
Tennessee		Mount Vernon		Tennessee		Monroe						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.	
									1053.4					Town of Mount Vernon
240	217		201° 55.3'	-1.8°	3.8 2.8	reshot 93° -	-11.3	-15.1		1038.3	TP	-204	-75	375,368 2,486,931 curve
240	217				5.1	92° 40'	-10.1	-15.2			TP			
	217	87° -	79° 27.8' +180°	-1.8°	+14.3	84° -	-22.6	-8.3			BS	-46	-212	
	217				+14.7	83° 54'	-22.9	-8.2	1030.1		BS			
##	65		112° 5'	-1.8°	3.8	84° -	+6.8	+3.0		1033.1		-23	+61	375,299 2,486,780 railroad
241	0				5.4	-	-5.4			1024.7	X	0	0	375,322 2,486,719
<u>IL</u>	110		291° 10'	-1.8°	13.0	-	-13.0			1017.1		+36	-104	375,358 2,486,615 375,360 + 2,486,605 Intersect. (north) (scaled)
242	206		282° 16'	-1.8°	12.4	-	-12.4			1017.7	TP	+37	-203	375,359 2,486,516 curve
242	206				13.4	TH	+1.0	-12.4			TP			
	220		90° 25.3' +180°	-1.8°	+14.3	-	+14.3		1032.0		BS	-5	-220	
	220				+13.2	BH	+1.1	+14.3			BS			
243	0				5.4	-	-5.4			1026.6	X	0	0	375,354 2,486,296
244	220		283° 23'	-1.8°	1.8	-	-1.8			1030.2		+44	-216	375,398 2,486,080
245	440		283° 23'	-1.8°	7.4	89° -	+7.7	+0.3		1032.3	TP	+88	-431	375,442 2,485,865
245	440				4.9	89° 20'	+5.1	+0.2			TP			
	660		121° 53.7' +180°	-1.8°	+6.1	-	+6.1		1038.4		BS	+331	-571	
	660				+9.4	TH	-3.3	+6.1			BS			
246	440		118° 12'	-1.8°	4.2	-	-4.2			1034.2		-196	+394	375,577 2,485,688
247	220		" "	-1.8°	7.4	-	-7.4			1031.0		-98	+197	375,675 2,485,491
248	0				5.4	-	-5.4			1033.0	X	0	0	375,773 2,485,294

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
2/8/79		G. Cotcamp		R. Hulsey		6834		R. Hulsey		2	25				
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER					
Tennessee		Mount Vernon/Englewood		Tennessee	Monroe					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
									1038.4						
249	220		263°20'	-1.8°	0.9	-		-0.9		1037.5		-32	-218	375,741	2,485,076
250	418		247°53.4'	-1.8°	0.8	-		-0.8		1037.6	TP	-169	-382	375,604	2,484,912
250	418				2.9	TH	+2.1	-0.8			TP				
	440		46°24' +180°	-1.8°	+7.4	91°-	+7.7	+15.1	1052.7		BS	-313	-309		
	440				+12.9	8H	+2.2	+15.1			BS				
251	220		46°24'	-1.8°	12.0	-		-12.0		1040.7		+157	+154	375,448	2,484,757
252	0				5.4	-		-5.4		1047.3	π	0	0	375,291	2,484,603
253	220		233°37.3'	-1.8°	7.1	-		-7.1		1045.6		-136	-173	375,155	2,484,430
254	440		" "	-1.8°	6.5	88°-	+15.3	+8.8		1061.5		-272	-346	375,019	2,484,257
255	660	872°	233°37.3'	-1.8°	8.9	87°-	+34.5	+25.6		1078.3	TP	-407	-518	374,884	2,484,085
255	660				1.3	87°40'	+26.8	+25.5			TP				
	221		61°11.7' +180°	-1.8°	+14.6	91°10'	+4.5	+19.1	1097.4		BS	-113	-190		
	221	93°30'			+13.3	91°30'	+5.8	+19.1			BS				
	183		63°30'	-1.8°	12.4	91°-	-3.2	-15.6		1081.8		+87	+161	374,858	2,484,056
256	0				5.4	-		-5.4		1092.0	π	0	0	374,771	2,483,895
257	228		264°30'	-1.8°	6.0	87°30'	+9.9	+3.9		1101.3	TP	-29	-226	374,742	2,483,669
257	228				5.1	87°44'	+9.0	+3.9			TP				
	430		116°41' +180°	-1.8°	+10.1	91°-	+7.5	+17.6			BS	+181	-390		Curve
	430				+13.9	90°30'	+3.8	+17.7	1119.0		BS				
258	220		102°24'	-1.8°	13.3	8H	-1.1	-14.4		1104.6		-40	+216	374,883	2,483,495

374,865 + 2,484,050
Trai

set up opposite sta.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
2/8/79		G. Cotcamp		R. Hulsey		6834		R. Hulsey		2	26				
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER					
Tennessee		Englewood		Tennessee	Monroe					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
									1119.0						
259	0				5.4	-		-5.4		1113.6	TP	0	0	374,923	2,483,279
260	220		274°55'	-1.8°	0.9	77	+1.1	+0.2		1119.2		+12	-220	374,935	2,483,059
261	440		270°50'	-1.8°	5.8	88°-	+15.3	+9.5		1128.5		-7	-440	374,916	2,482,839
262	658		269°34'	-1.8°	10.4	88°-	+23.0	+12.6		1131.6	TP	-31	-657	374,892	2,482,622
262	658				4.7	88°30'	+17.2	+12.5			TP				
	220		79°57.2'+180°	-1.8°	+12.9	-		+12.9	1144.5		BS	-45	-215		
	220				+11.8	84	+1.1	+12.9			BS				
263	0				5.4	-		-5.4		1139.1	TP	0	0	374,847	2,482,407
264	220		265°56.3'	-1.8°	4.9	89°-	+3.8	-1.1		1143.4	TP	-22	-219	374,825	2,482,188
264	220				6.2	88°40'	+5.1	-1.1			TP				
	440	439	80°46.6'+180°	-1.8°	+4.9	87°-	-23.0	-18.1	1125.3		BS	-84	-431		
	440				+1.1	87°30'	-19.2	-18.1			BS				
265	220		77°25'	-1.8°	0.4	88°-	+7.7	+7.3		1132.6		+55	+213	374,796	2,481,970
266	0				9.4	-									
266	0				5.4	-		-5.4		1119.9	TP	0	0	374,741	2,481,757
267	220		254°25'	-1.8°	9.4	-		-9.4		1115.9		-66	-210	374,675	2,481,547
268	440		"	-1.8°	11.0	88°-	+15.3	+4.3		1129.6		-131	-420	374,610	2,481,337
	650		254°14'	-1.8°	3.7	88°30'	+17.0	+13.3		1138.6		-196	-620	374,545	2,481,137
269	660		253°47.3'	-1.8°	3.5	88°30'	+17.3	+13.8		1139.1	TP	-204+4	-628+4	374,541	2,481,133
269	660				1.6	88°40'	+15.4	+13.8			TP				

374,550+2,481,125
Trail (scaled)

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
2/8/79		G. Cotcamp		R. Hulsey		6834		R. Hulsey		2	27						
AREA		TOPO MAP		STATE	COUNTY	TWP	RANGE	PPM	PARTY MANAGER								
Tennessee		Englewood		Tennessee	Monroe				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 A TP	NORTH + EAST + SOUTH - WEST -		COORDINATES		REMARKS	
												LAT.	DEP.	Y	X		
269									1139.1								
	222	221	97°38.2'+180°	-1.8°	+13.5	92°	+7.7	+21.2	1160.3		BS	+22+4	-220+4				
	222	99°			+14.6	91°42'	+6.6	+21.2			BS						
270	0				5.4	-		-5.4		1154.9	π	0	0	374,567	2,480,917		
271	220		276°29'	-1.8°	1.9	-		-1.9		1158.4		+18	-219	374,585	2,480,698		
272	437		280°26.3'	-1.8°	3.5	88°30'	+11.4	+7.9			TP	+66+4	-432+4	374,637	2,480,489	S-curve	
272	437				5.2	88°16'	+13.2	+8.0		1168.3	TP						
	657		78°19.8'+180°	-1.8°	+4.9	91°	+11.5	+16.4			BS	-153+3	-639+4				
	657				+13.2	BH	+3.3	+16.5	1184.8		BS						
273	440		76°20'	-1.8°	13.7	BH	-2.2	-15.9		1168.9		+117	+424	374,604	2,480,278		
274	220		"	-1.8°	13.3	-		-13.3		1171.5		+59	+212	374,546	2,480,066		
275	0				5.4	-		-5.4		1179.4	π	0	0	374,487	2,479,854	(Line #1 - Notes)	
275	81		237°3'	-1.8°	0.9	89°	+1.4	+0.5		1185.3		-46	-67	374,441	2,479,787	Intersect (Line #1)	El. 1187.4
276	173		209°16.7'	-2.2°	3.5	89°	+3.0	-0.5		1184.3	TP	-160	-65	374,327	2,479,789	90° bend	
276	173				5.0	88°30'	+4.5	-0.5			TP						
	220		357°29.7'-180°	-2.2°	+8.1	-		+8.1	1192.4		BS	-219	+18				
	220				+9.2	TH	-1.1	+8.1			BS						
277	0				5.4	-		-5.4		1187.0	π	0	0	374,108	2,479,807		
278	220		165°35'	-2.2°	0.5	-		-0.5		1191.9		-211	+63	373,897	2,479,870		
279	440		163°19.4'	-2.2°	1.6	-		-1.6		1190.8	TP	-416	+142	373,692	2,479,949		
279	440				3.8	TH	+2.2	-1.6			TP						

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE					
2/8/79		G. Co ^t camp		R. Hulsey		6834		R. Hulsey		2	28					
AREA		TOPO MAP	STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER							
Tennessee		Englewood	Tennessee	Monroe					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	
279										1190.8						
	223		32°11.9' +180°	-2.2°	+14	89°	-3.9	-2.5	1188.3		BS	-193	-111			
	223				+33	88°30'	-5.8	-2.5			BS					
280	0				5.4	-		-5.4		1182.9	π	0	0	373,499	2,479,838	
281	220	219	235°50.8'	-2.2°	14.9	93°	-11.5	-26.4		1161.9	TP	-130	-176	373,369	2,479,662	
281	220	95°30'			111	94°	-15.3	-26.4			TP					
	220		85°47' +180°	-2.2°	+3.7	87°	-11.5	-7.8			BS	-25	-219			
	220				+2.5	87°20'	-10.2	-7.7	1154.2		BS					
282	0				5.4	-		-5.4		1148.8	π	0	0	373,344	2,479,443	
283	191		195°33.7'	-2.2°	2.5	89°	+3.3	+0.8			TP	-186	-44	373,158	2,479,399	sharp curve
283	191				5.8	88°	+6.7	+0.9	X	1155.1	TP					
	440		359°31.3' +180°	-2.2°	+8.0	91°	+7.7	+15.7	1170.8		BS	-440	+21			
	440				+13.5	84	+2.2	+15.7			BS					
284	220		359°31.3'	-2.2°	13.6	91°	-3.8	-17.4		1153.4		+220	-10	372,938	2,479,410	(Line #1 Notes)
IF	100		359°58'	-2.2°	11.8	91°	-1.7	-13.5		1157.3		+100	-4	372,818	2,479,416	372,810 + 2,479,415 T-rod (line #1) El. 1159.3
285	0				5.4	-		-5.4		1165.4	π	0	0	372,718	2,479,420	set up opposite station
286	227		202°12'	-1.8°	10.2	87°	+11.9	+1.7		1172.5	TP	-213+2	-79+1	372,507	2,479,342	curve
286	227				9.0	87°18'	+10.7	+1.7			TP					
	225		70°54.3' +180°	-1.8°	+5.5	-		+5.5	1178.0		BS	-80+2	-210+1			
	225				+6.6	TH	-1.1	+5.5			BS					
287	0				5.4	-		-5.4		1172.6	π	0	0	372,429	2,479,133	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE		
2/8/79		G. Cotcamp		R. Hulsey		6837		R. Hulsey		2		29		
AREA		TOPO MAP		STATE		COUNTY		RANGE		TWP		PARTY MANAGER		
Tennessee		Englewood		Tennessee								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.	
									1178.0					
288	220		261°55'	-1.8°	4.8	-		-4.8		1173.2		-38	-217	372,391 2,478,916
289	440		261°55'	-1.8°	1.9	-		-1.9		1176.1	TP	-76+2	-433+1	372,355 2,478,701
289	440				4.1	TH	+2.2	-1.9			TP			
	660		92°3.5'480	-1.8°	+2.5	88°	-23.0	-20.5	1155.6		BS	+3+2	-660+1	
	660				+0.6	88°10'	-21.1	-20.5			BS			
290	440		92°3.5'	-1.8°	0.3	89°	+7.7	+7.4		1163.0		-2	+440	372,358 2,478,482
TP	330		90°25'	-1.8°	1.0	89°30'	+2.9	+1.9		1157.5		+8	+330	372,368 2,478,372 Driveway (south)
291	220		92°3.5'	-1.8°	1.9	-		-1.9		1153.7		-1	+220	372,359 2,478,262
292	0				5.3	-		-5.3		1150.3	TP	0	0	372,360 2,478,042
293	220		280°52'	-1.8°	13.2	91°40'	-6.4	-19.6		1136.0		+35	-217	372,395 2,477,825
294	436	435	281°39.6'	-1.8°	14.8	93°20'	-25.3	-40.1		1115.5	TP	+74+2	-429+1	372,436 2,477,614
294	436				13.6	93°30'	-26.6	-40.2			TP			
	201		69°20.4'480	-1.8°	+1.0	89°	-3.5	-2.5	1113.0		BS	-77+2	-186+1	
	201				+0.4	89°10'	-2.9	-2.5			BS			Curve
295	0				5.3	-		-5.3		1107.7	TP	0	0	372,361 2,477,429 Set-up opp. sta.
TP	136		220°57.0'	-1.8°	6.0	-		-6.0		1167.0	TP	-105+2	-86+1	372,258 2,477,344 Curve
TP	136				5.4	BH	-0.7	-6.1			TP			
	360	298	55°54.6'480	-1.8°	+6.9	83°	-36.3	-29.4	1077.6		BS	-175+2	-241+1	
	360				+6.1	83°10'	-35.4	-29.3			BS			
296	212	211	51°34'	-1.8°	1.1	85°	+18.4	+17.3		1094.9		+136	+161	372,221 2,477,265

DATE 2/8/79	INSTRUMENT MAN R. Hulsey	ROD MAN G. Cotcamp	PARTY NUMBER 6834-	NOTES CHECKED BY R. Hulsey	LINE NO. 2	PAGE 30
AREA Tennessee	TOPO MAP	STATE Tennessee	COUNTY Monroe	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			
									1077.6									
297	0				5.3	—		-5.3		1072.3	TP	0	0	372,085	2,477,104			
298	220	219	206° 25'	-1.8°	10.9	94°	-15.3	-26.2		1051.4	TP	-199	-91	371,886	2,477,013			
299	436	435	216° 5.5'	-1.8°	9.9	93° 04'	-23.3	-33.2		1044.4	TP	-359+2	-245+1	371,728	2,476,860			
299	436				8.9	93° 12'	-24.3	-33.2			TP							Curve
	210		14° 32.1' ± 180	-1.8°	5.1	—		+5.1	1049.5		BS	-205+2	-46+1					
	210				4.0	BH	+1.1	+5.1			BS							
300	0				5.4	—		-5.4		1044.1	TP	0	0	371,525	2,476,815			Set-up opp. sta.
301	220		205° 31'	-1.8°	11.4	92°	-7.7	-19.1		1030.4		-201	-88	371,324	2,476,727			Curve
302	450		209° 2.1'	-1.8°	9.8	92°	-15.7	-25.5		1024.0	TP	-400+2	-206+2	371,127	2,476,611			Turn across road
302	450				7.0	92° 22'	-18.6	-25.6			TP							
	660		63° 14.1' ± 180	-1.8°	8.5	—		+8.5	1032.5		BS	-316+1	-580+1					
	660				11.8	TH	-3.3	+8.5			BS							
303	440		63° 14.1'	-1.8°	11.4	—		-11.4		1021.1		+210	+386	371,022	2,476,418			
304	220		60.6'	-1.8°	12.2	—		-12.2		1020.3		+116	+187	370,928	2,476,219			
305	0				5.4	—		-5.4		1027.1	TP	0	0	370,812	2,476,032			
306	220		236° 7.6'	-1.8°	12.7	—		-12.7		1019.8		-128	-179	370,684	2,475,853			
307	440																	
307	408		236° 22'	-1.8°	14.2	—		-14.2		1018.3		-237	-332	370,575	2,475,700			Horiz. Corr. 4'-38", x-24"
307	440		236° 7.6'	-1.8°	14.3	—		-14.3		1018.2	TP	-257	-357	370,555	2,475,675			370,575 + 2,475,700 (scaled)
307	440				12.1	BH	-2.2	-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						
2/12/79		G. Cotcamp		R. Hulsey		6834		R. Hulsey		2	32						
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER							
Tennessee		Englewood		Tennessee	Monroe/McMinn					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		
									1088.7								369,940+2,473,665 (scaled)
	810		141°19'	-1.8°	9.1	91°	-14.1	-23.2		1065.5		-616	+526	369,953	2,473,667		Tra. 1 (south)
318	658		140°8'	-1.8°	13.8	90°30'	-5.7	-19.5		1069.2		-492	+437	370,077	2,473,578		
319	440		136°36'	-1.8°	13.7	8H	-2.2	-15.9		1072.8		-310	+312	370,259	2,473,453		
320	220		126°41'	-1.8°	11.4	-		-11.4		1077.3		-126	+180	370,443	2,473,321		
321	0				5.4	-		-5.4		1083.3	X	0	0	370,569	2,473,141		
	109		326°37'	-1.8°	7.5	-		-7.5		1081.2		+89	-63	370,658	2,473,078		Y-intersect.
322	137		272°5.1'	-1.8°	14.6	-		-14.6		1074.1	TP	+1	-137	370,570	2,473,004		90° bend
322	137				13.9	8H	-0.7	-14.6			TP						
	220	219	69°36'+180°	-1.8°	+5.2	86°	-15.3	-10.1	1064.0		BS	-83	-203				
	220				+3.3	86°30'	-13.4	-10.1			BS						
323	0				5.4	-		-5.4		1058.6	X	0	0	370,487	2,472,801		↑
324	220		294°40'	-1.8°	8.5	-		-8.5		1055.5	TP	+85	-203	370,572	2,472,598		Monroe Co.
324	220				9.6	TH	+1.1	-8.5			TP						line jogs south
	440	439	357°51.7'-180°	-1.8°	+4.2	87°	-23.0	-18.8	1036.7		BS	-438	+30				Me Minn Co.
	440				+5.5	86°50'	-24.3	-18.8			BS						↓
	430		357°36'	-1.8°	3.1	87°	+22.5	+19.4		1056.1		+429	-31	370,563	2,472,597		T-intersect.
325	220		353°46'	-1.8°	0.9	-		-0.9		1035.8		+218	-31	370,352	2,472,597		
326	0				5.4	-		-5.4		1031.3	X	0	0	370,134	2,472,628		
327	220		189°28'	-1.8°	11.9	-		-11.9		1024.8	TP	-218	-29	369,916	2,472,599		
327	220				13.0	TH	+1.1	-11.9			TP						

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE		
2/12/79		G. Cotcamp		R. Hulsey		6874		R. Hulsey		2		33		
AREA		TOPO MAP		STATE		COUNTY		RANGE		PPM		PARTY MANAGER		
Tennessee		Englewood		Tennessee		McMinn						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.	
327										1024.8				
	220		2°59.6' +180°	-1.8°	+0.8	TH	-1.1	-0.3	1024.5		BS	-220	-5	
	220				+2.2	89°20'	-2.6	-0.4		BS				
328	0				5.4	-		-5.4	1019.1		T	0	0	369,696 2,472,594
329	216		202° -	-1.8°	7.5	-		-7.5	1017.0		TP	-203	-75	369,493 2,472,519 curve
329	216				8.6	TH	+1.1	-7.5			TP			
	440		53°47.3' +180°	-1.8°	+8.8	88° -	-15.3	-6.5	1010.5		BS	-271	-347	
	440				+1.1	89° -	-7.7	-6.6		BS				
330	220		53°47.3'	-1.8°	2.2	89° -	+3.8	+1.6	1012.1			+135	+173	369,357 2,472,345
331	0				5.4	-		-5.4	1005.1		T	0	0	369,222 2,472,172
332	215		209°37.5'	-1.8°	10.4	-		-10.4	1000.1		TP	-190	-100	369,032 2,472,072 curve
332	215				11.5	TH	+1.1	-10.4		TP				
	220		16°3.7' +180°	-1.8°	+6.2	-		+6.2	1006.3		BS	-213	-54	
	220				+7.3	TH	-1.1	+6.2		BS				
333	0				5.4	-		-5.4	1000.9		T	0	0	368,819 2,472,018
334	220		217°43'	-1.8°	13.8	-		-13.8	992.5			-178	-129	368,641 2,471,889
	438		216°54'	-1.8°	6.1	92° -	-15.3	-21.4	984.9			-357	-253	368,465 2,471,750 (scaled) Trail (south)
335	440		217°43'	-1.6°	6.7	92° -	-15.3	-22.0	984.3		TP	-355	-259	368,464 2,471,759
335	440				14.3	91° -	-7.7	-22.0		TP				
	216		64°9.2' +180°	-1.6°	+11.9	91° -	+3.8	+15.7	1000.0		BS	-100	-192	curve
	216				+14.6	BH	+1.1	+15.7		BS				

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
2/12/79		G. Cotcamp		R. Hulsey		6834		R. Hulsey		2	34						
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	HPM	PARTY MANAGER							
Tennessee		Englewood		Tennessee	McMinn					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		
									1000.0								
336	0				54	-		-5.4		994.6	TP	0	0	368,364	2,471,567		
337	222	221	208° 6'	-1.6°	3.2	86° -	+15.4	+12.2		1012.2	TP	-198	-99	368,166	2,471,468	T.P. opposite station	
337	222				5.1	85° 30'	+17.4	+12.3			TP						
	197		79° 33.8' + 180°	-1.6°	+13.9	94° 48'	+16.4	+30.3	1042.5		BS	-41	-193			sharp curve	
	197				+14.9	94° 30'	+15.4	+30.3			BS						
	20		176° 22'	-1.6°	6.7	-		-6.7		1035.8		-20	+2	368,105	2,471,277	trail (south)	
338	0				54	-		-5.4		1037.1	TP	0	0	368,125	2,471,228		
339	215		358° 12'	-1.6°	8.2	-		-8.2		1034.3	TP	+215	-13	368,340	2,471,262	sharp curve	
339	215				9.3	TH	+1.1	-8.2			TP						
	189	188	89° 41.2' + 180°	-1.6°	+13.5	92° -	+6.6	+20.1	1054.4		BS	-6	-188				
	189	94° 30'			+14.6	91° 40'	+5.5	+20.1			BS						
340	0				5.4	-		-5.4		1049.0	TP	0	0	368,334	2,471,074		
341	220		262° 41'	-1.6°	3.3	88° -	+7.7	+4.4		1058.8		-34	-217	368,300	2,470,857		
342	440		258° 8.4'	-1.6°	4.8	88° -	+15.3	+10.5		1064.9	TP	-102	-428	368,232	2,470,646		
342	440				7.4	87° 40'	+17.9	+10.5			TP						
	222	92'	95° 4.3' + 180°	-1.6°	+14.0	-		+14.0	1078.9		BS	+13	-222				
	222				+12.9	84	+1.1	+14.0			BS						
343	0				54	-		-5.4		1073.5	TP	0	0	368,245	2,470,424	set up opposite station	
344	203		255° 4.2'	-1.6°	4.7	87° -	+10.6	+5.9		1084.8	TP	-58	-195	368,187	2,470,228	curve.	
344	203				6.5	86° 30'	+12.4	+5.9			TP						

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE			
2/12/79		G. Cotcamp		R. Hulsey		6834		R. Hulsey		2	35			
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER				
Tennessee		Englewood		Tennessee	McMinn					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.	
344										1084.8				
	220		61° 4.5' +180°	-1.6°	+14.8	BH	+1.1	+15.9	1100.7		BS	-112	-190	
	220				+14.6	90° 20'	+1.3	+15.9		BS				
345	0				5.4	-		-5.4	1095.3		T	0	0	368,075 2,470,039
	190		242° 25'	-1.6°	13.7	-		-13.7	1087.0			-93	-166	367,982 2,469,873
346	220		244° 49.5'	-1.6°	13.7	BH	-1.1	-14.8	1085.9			-99	-196	367,976 2,469,843
347	440		" "	-1.6°	13.0	-		-13.0	1087.7			-198	-393	367,877 2,469,646
348	660		244° 49.5'	-1.6°	4.5	91° 30'	-17.3	-21.8	1078.9		TP	-297-2	-589	367,776 2,469,450
348	660				5.2	91° 26'	-16.5	-21.7			TP			
	440		66° 50.5' +180°	-1.6°	+1.5	89° -	-7.7	-6.2	1072.7		BS	-184-2	-400	
	440				+5.4	88° 30'	-11.5	-6.1			BS			
349	220		69° 47'	-1.6°	1.8	-		-1.8	1070.9			+82	+204	367,672 2,469,254
350	0				5.4	-		-5.4	1067.3		T	0	0	367,590 2,469,050
351	220		232° 13'	-1.6°	12.9	BH	-1.1	-14.0	1058.7			-140	-170	367,450 2,468,880
352	440		" "	-1.6°	9.7	92° -	-15.3	-25.0	1047.7			-279	-340	367,311 2,468,710
353	660		232° 13'	-1.6°	13.3	92° -	-23.0	-36.3			TP	-418-2	-509	367,170 2,468,541
353	660	659			5.7	92° 40'	-30.7	-36.4	1036.3		TP			
	438	437	51° 28.8' +180°	-1.6°	+3.0	86° -	-30.5	-27.5	1008.8		BS	-282-2	-334	
	438				+5.5	85° 40'	-33.0	-27.5			BS			
354	220	219	51° 28.8'	-1.6°	7.0	86° -	+15.3	+8.3	1017.1			+141	+167	367,027 2,468,374
355	0				5.4	-		-5.4	1003.4		T	0	0	366,886 2,468,207

367,975 + 2,469,860
T-red (south) (scale)

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
2/12/79		G. CoCamp		R. Hulsey		6834		R. Hulsey		2	36						
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER							
Tennessee		Englewood		Tennessee	McMinn					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		
									1008.8								
356	220		214°37'	-1.6°	13.3	93°-	-11.5	-24.8		984.0		-184	-120	366,702	2,468,087		
357	440	439	214°37'	-1.6°	13.6	93°-	-23.0	-36.6		972.2	TP	-368-2	-239	366,516	2,467,968		
357	440				6.0	94°-	-30.6	-36.6			TP						
	220		52°13.1' +180°	-1.6°	+5.0	88°-	-7.7	-2.7	969.5		BS	-140-2	-170				
	220				+1.2	89°-	-3.8	-2.6			BS						
358	0				54	-		-5.4		964.1	π	0	0	366,374	2,467,798		
359	221		217°30.3'	-1.6°	14.6	-		-14.6		954.9	TP	-179-2	-130	366,193	2,467,668	T.P. opposite station	
359	221	92°30'			13.5	θH	-1.1	-14.6			TP						
	443	442	58°50.5' +180°	-1.6°	+10.5	87°-	-23.2	-12.7	942.2		BS	-239-2	-372				
	443				+28	88°-	-15.5	-12.7			BS						
360	221		58°50.5'	-1.6°	4.0	88°-	+7.7	+3.7		945.9		+120	+186	366,072	2,467,482		
361	0				5.3	-		-5.3		936.9	π	0	0	365,952	2,467,296	set up opposite sta.	
362	220		263°2.3'	-1.6°	11.0	-		-11.0		931.2	TP	-33-2	-218	365,917	2,467,078		
362	220				12.1	TH	+1.1	-11.0			TP						
	219		107°52' +180°	-1.6°	+11.2	88°40'	-5.1	+6.1	937.3		BS	+61-2	-210+2				
	219				+13.1	88°10'	-7.0	+6.1			BS						
363	0				54	-		-5.4		931.9	π	0	0	365,976	2,466,870		
364	204		326°37'	-1.6°	6.4	-		-6.4			TP	+167-2	-117+2	366,141	2,466,755	curve	
364	204				7.5	TH	+1.0	-6.5		930.8	TP						

DATE 2/12/79	INSTRUMENT MAN G. Cotcamp	ROD MAN R. Hulsey	PARTY NUMBER 6834	NOTES CHECKED BY Randy Hulsey	LINE NO. 2	PAGE 37
AREA Tennessee	TOPO MAP Englewood	STATE Tennessee	COUNTY McMinn	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		
364										930.8							
	656		42°50' +180°	-1.6°	+14.4	92°10'	+24.8	+39.2	970.0		BS	-493-1	-432+2				
	656				+10.7	92°30'	+28.6	+39.3		BS							
	558	55.7	41°12'	-1.6°	7.5	93°-	-29.2	-36.7		933.3		+429	+355	365,076	2,466,680	36,115+2,466,685 (scale)	Trail (north)
365	440	439	42°26'	-1.6°	6.3	93°-	-23.0	-29.3		940.7		+332	+287	365,979	2,466,612		
366	220		" "	-1.6°	13.3	BH	-1.1	-14.4		955.6		+166	+194	365,813	2,466,469		
367	0				5.4	-		-5.4		964.6	X	0	0	365,647	2,466,328		
368	220		205°59'	-1.6°	0.9	TH	+1.1	+0.2		970.2		-200	-91	365,447	2,466,234		
369	440		205°59'	-1.6°	4.9	TH	+2.2	-2.7			TP	-401	-182+2	365,246	2,466,145		
369	440				5.1	89°42'	+2.3	-2.8	X	967.2	TP						
	222		52°9.2' +180°	-1.6°	+2.5	-		+2.5	969.7		BS	-141	-171+2				T.P. opposite station
	222				+3.6	TH	-1.1	+2.5		BS							
370	0				5.4	-		-5.4		964.3	X	0	0	365,105	2,465,976		
371	220		241°27.6'	-1.6°	4.3	88°-	+7.7	+3.4		973.1		-110	-190	364,995	2,465,786		
	270		241°27.6'	-1.6°	4.2	88°-	+9.4	+5.2		974.9	TP	-136	-233+2	364,969	2,465,745		Y-intersect
	270				0.3	88°50'	+5.5	+5.2			TP						split station
	160		350°35' -180°	-1.6°	+0.5	89°-	-2.8	-2.3			BS	-157	+31+2				
	160				+3.2	88°-	-5.6	-2.4	972.5		BS						
	0				5.4	-		-5.4			967.1	X	0	0	364,812	2,465,778	
373	216	215	177°1'	-1.6°	14.0	92°-	-7.5	-21.5		951.0	TP	-214	+17+2	364,598	2,465,797		curve
373	216	94'			10.2	93°-	-11.3	-21.5			TP						

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE			
2/12/79		G. Colcamp		R. Hulsey		6834		R. Hulsey		2	38 of 38			
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER				
Tennessee		Englewood		Tennessee	Mc Minn					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.	
373										951.0				
	220	219	27°48'+180°	-1.6°	+4.1	86°-	-15.3	-11.2	939.8		BS	-196	-97	
	220				+0.3	87°-	-11.5	-11.2		BS				
374	0				5.4	-		5.4		934.4	X	0	0	364,402 2,465,700
375	220		170°52.6'	-1.6°	13.7	93°-	-11.5	-25.2		914.6	i	-216	+41	364,186 2,465,741
	105	104	219°45'	-1.6°	12.2	96°20'	-11.5	-23.7		916.1		-82	-64	364,326 2,465,636
Y	282		170°52.6'	-1.6°	11.8	93°-	-14.7	-26.5		913.3	TP	-277	+52	364,125 2,465,752
Y	282				14.2	92°30'	-12.3	-26.5			TP			
	84				+6.2	-		+6.2	919.5		BS			
	84				+6.6	74	-0.4	+6.2			BS			
X	14				7.4	-		-7.4		912.1	BM			

horizont. correct. y = -23'
x = +15'

EOL
364,315 + 2,465,640 (scaled)
Trail (west)

Y-intersect

Note: Approx. location
Unable to find BM.
WTR 37' U.S.G.S. E.I.
912.1
Measured distance
given in control data