

SURVEY NOTES-HIGH RESOLUTION DATA

Geosource Inc. Client-COCORP

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
4-21-79		R. Hulsey		W. Krol		6034		Walt Kro		3		1 of 28			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
OKLAHOMA		Roosevelt 7 1/2'		Oklahoma		Kiowa		4N		18W				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
									1431.0						Instrument TIA w/ 10' ranging - 330' cable and steel arrows
	760		80° 9.5' + 130°	+10.5°	+13.0	90° 40'	+8.8	+21.8	1452.8		BS	+9	-760		→ R (scaled)
	760		" "	"	+10.8	90° 50'	+11.1	+21.9			BS				Intersect. of A31
1	660		79° 9.7'	+10.5°	11.7	90° 50'	-9.6	-21.3		1431.5		+4	+660	534,398, 1,688,990	
2	330		" "	"	9.8	-	-	-9.8		1443.0		+2	+330	534,396, 1,688,660	24 19
3	0				5.4	-	-	-5.4		1447.4	TP	0	0	534,394, 1,688,330	25 30
4	330		260° 4.6'	+10.5°	3.0	-	-	-3.0		1449.8		+3	-330	534,397, 1,688,000	
5	660		" "	"	0.2	-	-	-0.2		1452.6		+7	-660	534,401, 1,687,670	
6	990		260° 4.6'	+10.5°	6.1	TH	+5.0	-1.1			TP	+10	-990	534,404, 1,687,340	
6	990				4.1	89° 50'	-2.9	-1.2		1451.6	TP				
	2640		80° 0.1' + 180°	+10.5°	+12.7	-	-	+12.7	1464.3		BS	+23	-2640		
	2640				+11.2	90° 02'	+1.5	+12.7			BS				
7	2310		80° 0.1'	+10.5°	13.4	-	-	-13.4		1450.9		-20	+2310	534,407, 1,687,010	
8	1980		" "	"	10.7	-	-	-10.7		1453.6		-17	+1980	534,410, 1,686,680	
9	1650		" "	"	7.1	-	-	-7.1		1457.2		-14	+1650	534,413, 1,686,350	
10	1320		" "	"	4.5	-	-	-4.5		1459.8		-12	+1320	534,415, 1,686,020	
11	990		" "	"	3.9	-	-	-3.9		1460.4		-9	+990	534,418, 1,685,690	
12	660		" "	"	4.2	-	-	-4.2		1460.1		-6	+660	534,421, 1,685,360	
13	330		" "	"	5.7	-	-	-5.7		1458.6		-3	+330	534,424, 1,685,030	
14	0				5.4	-	-	-5.4		1458.9	TP	0	0	534,427, 1,684,700	
15	330		260° 4.9'	+10.5°	4.2	-	-	-4.2		1460.1		+3	-330	534,430, 1,684,370	

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DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
4-21-79		R. Hulsey		W. Krol		6834		Walt Krol		3		2				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PARTY MANAGER				
Oklahoma		Roosevelt		Oklahoma		Kiowa		4N		18W		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	X
									1464.3							
16	660		260° 4.9'	+10.5°	1.9	-		-1.9		1462.4		+7	-660	534,434	1,684,040	x=+5' y=-3'
17	990															
17	860		259° 11'	+10.5°	2.2	TH	+4.3	+2.1		1466.4		-5	-860	534,422	1,683,840	4-Way Intersect, 1465.
17	990		260° 4.9'	+10.5°	3.0	TH	+5.0	+2.0		1466.3		+10	-990	534,437	1,683,710	
18	1320		" "	" "	9.7	TH	+6.6	-3.1		1461.2		+13	-1320	534,440	1,683,380	
19	1650		" "	" "	12.5	TH	+8.3	-4.2		1460.1		+17	-1650	534,444	1,683,050	
20	1980		" "	" "	12.8	TH	+9.9	-2.9		1461.4		+20	-1980	534,447	1,682,720	
21	2310		" "	" "	10.0	89°50'	+6.7	-3.3		1461.0		+23	-2310	534,450	1,682,390	
22	2640		260° 4.9'	+10.5°	11.7	89°50'	+7.7	-4.0		1460.3	TP	+36	-2640	534,463	1,682,060	
22	2640				13.0	89°48'	+9.2	-3.8			TP					
	2640		79° 40.8' +180°	+10.5°	12.5	89°50'	-7.7	+4.8	1465.1		BS	+18	-2640			
	2640				14.1	89°48'	9.2	+4.9			BS					
23	2310		79° 40.8'	+10.7°	9.9	89°50'	+6.7	-3.2		1461.9		-15	+2310	534,466	1,681,730	
24	1980		" "	" "	6.2	89°50'	+5.8	-0.4		1464.7		-13	+1980	534,468	1,681,400	
25	1650		" "	" "	2.5	89°50'	+4.8	+2.3		1467.4		-11	+1650	534,470	1,681,070	
26	1320		" "	" "	0.1	-		-0.1		1465.0		-9	+1320	534,472	1,680,740	
27	990		" "	" "	3.0	-		-3.0		1462.1		-7	+990	534,474	1,680,410	
28	660		" "	" "	4.3	-		-4.3		1460.8		-4	+660	534,477	1,680,080	
29	330		" "	" "	4.1	-		-4.1		1461.0		-2	+330	534,479	1,679,750	
30	0				5.4	-		-5.4		1459.7	TP	0	0	534,481	1,679,420	

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DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
4-21-79		R. Hulsey		W. Krol		6834		Walt Krol		3		3				
AREA		TOPO MAP		STATE		COUNTY		RANGE		PARTY MANAGER						
Oklahoma		Roosevelt		Oklahoma		Kiowa		18 W		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
									1465.1							
31	330		259° 51.6'	+10.7°	6.3	—		-6.3		1458.8		+3	-330	534,484	1,679,090	y = -9' x = +5' 534,485 + 1,678,538(s)
32	660		" "	" "	5.9	—		-5.9		1459.2		+6	-660	534,487	1,678,760	
33	880		258° 58'	+10.7°	4.0	—		-4.0		1461.1		-5	-880	534,476	1,678,540	Fraud (south) 1460.
33	990		259° 51.6'	+10.7°	5.2	—		-5.2		1459.9		+10	-990	534,491	1,678,430	
34	1320		" "	" "	4.0	—		-4.0		1461.1		+13	-1320	534,494	1,678,100	
35	1650		" "	" "	2.8	—		-2.8		1462.3		+16	-1650	534,497	1,677,770	
36	1980		" "	" "	9.2	TH	+9.9	+0.7		1465.8		+19	-1980	534,500	1,677,440	
37	2310		" "	" "	7.4	TH	+11.6	+4.2		1469.3		+23	-2310	534,504	1,677,110	
38	2640		259° 51.6'	+10.7°	3.4	TH	+13.2	+9.8		1474.9	TP	+26	-2640	534,507	1,676,780	
38	2640				-5.6	89°40'	+15.4	+9.8			TP					
	2640		80° 5.3' + 180°	+10.7°	+7.2	—		+7.2			BS	+36	-2640			
	2640				+5.6	90°02'	+1.5	+7.1	1482.0		BS					
39	2310		80° 5.3'	+10.7°	5.9	—		-5.9		1476.1		-32	+2310	534,511	1,676,450	
40	1980		" "	" "	6.0	—		-6.0		1476.0		-27	+1980	534,516	1,676,120	
41	1650		" "	" "	9.2	—		-9.2		1472.8		-23	+1650	534,520	1,675,790	
42	1320		" "	" "	8.9	—		-8.9		1473.1		-18	+1320	534,525	1,675,460	
43	990		" "	" "	4.5	—		-4.5		1477.5		-14	+990	534,529	1,675,130	
44	660		" "	" "	3.5	—		-3.5		1478.5		-9	+660	534,534	1,674,800	
45	330		" "	" "	3.9	—		-3.9		1478.1		-5	+330	534,538	1,674,470	
46	0				5.4	—		-5.4		1476.6	TP	0	0	534,543	1,674,140	

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4/21/79		R. Hulsey		W. Krol		6834		Walt Krol		3		4			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PARTY MANAGER			
Oklahoma		Roosevelt		Oklahoma		Kiowa		4N		18W		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
									1482.0						
47	330		260° 4.3'	+10.7°	11.2	—		-112		1470.8		+4	-330	534,547 1,673,810	y=-13' x=-15'
48	660		" "	" "	9.7	—		-97		1472.3		+9	-660	534,552 1,673,480	534,560 1,673,255 (s)
48	900		259° 33'	+10.7°	5.1	—		-51		1476.9		+4	-900	534,547 1,673,240	4-Way Intersect. 1476.
49	990		260° 4.3'	+10.7°	8.0	—		-80		1474.0		+13	-990	534,556 1,673,150	
50	1320		" "	" "	6.1	—		-61		1475.9		+18	-1320	534,561 1,672,820	
51	1650		" "	" "	2.0	—		-2.0		1480.0		+22	-1650	534,565 1,672,490	
52	1980		" "	" "	9.6	TH	+9.9	+0.3		1482.3		+27	-1980	534,570 1,672,160	
53	2310		" "	" "	8.8	TH	+11.6	+2.8		1484.8		+31	-2310	534,574 1,671,830	
54	2640		" "	" "	7.3	TH	+13.2	+5.9		1487.9		+36	-2640	534,579 1,671,500	
55	2970		260° 4.3'	+10.6°	4.9	TH	+14.9	+10.0		1491.9	TP	+35	-2970	534,578 1,671,173	
55	2970				-7.5	89° 40'	+17.3	+9.8	+9.9		TP		+3		
	2310		79° 59.1' ± 180°	+10.6°	+7.7	89° 40'	-13.4	-57			BS	+24	-2310+2		
	2310				+5.8	TH	-11.6	-5.8	1486.1		BS				
56	1980		79° 59.1'	+10.6°	1.5	TH	+9.9	+8.4		1494.5		-20	+1980	534,582 1,670,845	
57	1650		" "	" "	1.6	TH	+8.3	+6.7		1492.8		-17	+1650	534,585 1,670,515	
58	1320		" "	" "	2.3	TH	+6.6	+4.3		1490.4		-13	+1320	534,589 1,670,185	
59	990		" "	" "	2.2	TH	+5.0	+2.8		1488.9		-10	+990	534,592 1,669,855	
60	660		" "	" "	2.2	TH	+3.3	+1.1		1487.2		-6	+660	534,596 1,669,525	
61	330		" "	" "	1.8	—		-1.8		1484.3		-3	+330	534,599 1,669,195	
62	0				5.4	—		-5.4		1480.7	TP	0	0	534,602 1,668,865	

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4-21-79		R. Hulsey		W. Krol		6834		Walt Krol		3		5		
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PARTY MANAGER		
OKlahoma		Roosevelt		OK		Kilgus		4N		18W		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.	
									1486.1					
63	330		259° 50.5'	+10.6	13.1	90°30'	-2.9	-16.0		1470.1		+3	-330	534,605 1,668,535
64	660		" "	" "	12.2	91°-	-11.5	-23.7		1462.4		+5	-660	534,607 1,668,205
65	950		259° 53'	+10.6	10.7	91°-	-16.6	-27.3		1458.8		+8	-950	534,610 1,667,915 4-way int. 1458' elev.
65	990		259° 50.5'	+10.6	10.8	91°-	-17.3	-28.1		1458.0		+8	-990	534,610 1,667,875
66	1320		" "	" "	8.1	91°-	-23.0	-31.1		1455.0		+10	-1320	534,612 1,667,545
67	1650		" "	" "	12.0	90°40'	-19.2	-31.2		1454.9		+13	-1650	534,615 1,667,215
68	1980		259° 50.5'	+10.4	13.0	BH	-9.9	-22.9			TP	+8	-1980	534,610 1,666,885
68	1980				11.5	90°20'	-11.5	-23.0		1463.1	TP			
	1320		79° 55.94180°	+10.4	11.5	-		+11.5	1.4746		BS	+8	-1320	
	1320				5.0	BH	+6.6	+11.6			BS			
69	990		79° 55.9'	+10.4	10.1	-		-10.1		1465		-6	+990	534,612 1,666,555
70	660		" "	" "	7.2	-		-7.2		1468.8		-4	+660	534,614 1,666,225
71	330		" "	" "	3.6	-		-3.6		1470		-2	+330	534,616 1,665,895
72	0				5.4	-		-5.4		1472	TP	0	0	534,618 1,665,565
73	330		260° 10.6'	+10.4	10.9	-		-10.9		1477		+3	-330	534,621 1,665,235
74	660		" "	" "	10.8	BH	-3.3	-14.1		1472.5		+7	-660	534,625 1,664,905
75	990		" "	" "	11.9	BH	-5.0	-16.9		1477.7		+10	-990	534,628 1,664,575
76	1320		" "	" "	11.5	BH	-6.6	-18.1		1482.5		+13	-1320	534,631 1,664,245
77	1650		260° 10.6'	+10.4	7.6	BH	-8.3	-15.9		1458.8	TP	+17	-1650	534,635 1,663,915
77	1650				10.9	90°10'	-4.8	-15.7	15.8		TP			

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4-21-79		R. Hulsey			W. Kral		6834		Walt Krol			3	6	
AREA		TOPO MAP		STATE	COUNTY			TWP	RANGE	PPM	PARTY MANAGER			
Oklahoma		Roosevelt/Warren		Oklahoma	Kiowa			4N	18W		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.	
77										1.458.8				
	264°		80° 32.2' ± 18"	+10.4°	+14.6	89° 20'	-30.7	-16.1	1.442.7		BS	+43	-2640	
	264°				+13.1	89° 22'	-29.2	-16.1			BS			
78	2310		80° 32.2'	+10.4°	4.8	89° 30'	-20.2	+15.4		1.458.1		-38	+2310	534,640 1,663,585
79	1980		" "	" "	2.7	89° 40'	-11.5	+8.8		1.451.5		-32	+1980	534,646 1,663,255
80	1650		" "	" "	3.6	89° 40'	-9.6	+6.0		1.448.7		-27	+1650	534,651 1,662,925
77	1385		80° 51'	+10.4°	1.7	89° 40'	-8.1	+6.4		1.449.1		-30	+1385	534,648 1,662,660 4-way int. 1.445' elev.
81	1320		80° 32.2'	+10.4°	3.6	TH	+6.6	+3.0		1.445.7		-22	+1320	534,656 1,662,595 ↑
82	990		" "	" "	4.7	TH	+5.0	+0.3		1.443.0		-16	+990	534,662 1,662,265 Roosevelt Quad
83	660		" "	" "	3.2	-		-3.2		1.439.5		-11	+660	534,667 1,661,935 Warren Quad.
84	330		" "	" "	5.1	-		-5.1		1.437.6		-5	+330	534,673 1,661,605 ↓
85	0				5.4	-		-5.4		1.437.3	TP	0	0	534,678 1,661,275
86	330		260° 58.1'	+10.4°	2.2	-		-2.2		1.440.5		+8	-330	534,686 1,660,945
87	660		" "	" "	7.5	-		-7.5		1.435.2		+16	-660	534,694 1,660,615
88	990		" "	" "	12.9	-		-12.9		1.429.8		+24	-990	534,702 1,660,285
89	1320		" "	" "	9.0	BH	-6.6	-15.6		1.427.1		+32	-1320	534,710 1,659,955
90	1650		" "	" "	7.8	-		-7.8		1.434.9		+39	-1650	534,717 1,659,625
91	1980		260° 58.1'	+10.3°	8.0	-		-8.0		1.434.7	TP	+44	-1980	534,722 1,659,300
91	1980				6.9	90° 02'	-1.1	-8.0			TP		+5	
	1980		80° 33.1' ± 18"	+10.3°	+5.6	89° 10'	-28.8	-23.2	1.411.5		BS	+29	-1980	
	1980				+11.4	89° -	-34.6	-23.2			BS		+4	

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4-21-79		R. Hulsey		W. Krol		6834		Walt Krol		3		7			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Oklahoma		Warren		Oklahoma		Kiowa/Jackson		4N		18W/19W				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
									1.411.5						
92	1650		80° 33.1'	+10.3°	1.0	89°20'	+19.2	-18.2		14297		-25	+1650	534,726	1,658,974
93	1320		" "	" "	2.1	89°40'	+7.7	+5.6		1417.1		-20	+1320	534,731	1,658,644
94	990		" "	" "	2.7	TH	+5.0	+2.3		1413.8		-15	+990	534,736	1,658,314
95	660		" "	" "	2.8	TH	+3.3	+0.5		1412.0		-10	+660	534,741	1,657,984
96	330		" "	" "	1.8	-	-	-1.8		1409.7		-5	+330	534,746	1,657,654
#	56		86° 20'	+10.3°	4.2	-	-	-4.2		1407.3		-6	+56	534,745	1,657,380
97	0				5.4	-	-	-5.4		1406.1	TP	0	0	534,751	1,657,324
98	330		260° 20.7'	+10.5°	6.4	-	-	-6.4		1405.1		+5	-330	534,756	1,656,994
99	660		" "	" "	7.0	-	-	-7.0		1404.5		+10	-660	534,761	1,656,664
100	990		" "	" "	7.8	-	-	-7.8		1403.7		+15	-990	534,766	1,656,334
101	1320		" "	" "	8.5	-	-	-8.5		1403.0		+19	-1320	534,770	1,656,004
102	1650		" "	" "	9.9	-	-	-9.9		1401.6		+24	-1650	534,775	1,655,674
103	1980		260° 20.7'	+10.5°	10.0	+	-	-10.0			TP	+29	-1980	534,780	1,655,344
103	1980				9.0	90°02'	-1.1	-10.1		1401.4	TP				
	330		77° 15.5'±180°	+10.5°	+1.5	-	-	+1.5	1402.9		BS	-13	-330		East side of river
	330				+1.3	90°02'	+0.2	+1.5			BS				Jackson County
104	0				5.4	-	-	-5.4		1.397.5	TP	0	0	534,767	1,655,014
105	330		261° 26.9'	+10.5°	13.9	87°30'	+14.4	+0.5			TP	+11	-330	534,778	1,654,684
105	330				13.0	87°40'	+13.4	+0.4		1.403.3	TP				In brush

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
4-21-79		R. Hulsey		W. Krol		6834		Walt Krol		3		8				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
Oklahoma		Warren		Oklahoma		Jackson		4N		19W				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 - LAT.	EAST + WEST - DEP.	COORDINATES		REMARKS
														Y	X	
105										1403.3				534,778	1,654,684	
	660		79°20.2'+180°	+10.5°	+6.3	-		+6.3	1409.6		BS	-2	-660			
	660				+3.0	BH	+3.3	+6.3			BS					
106	330		79°20.2'	+10.5°	6.6	-		-6.6		1403.0		+1	+330	534,777	1,654,354	
107	0				5.4	-		-5.4		1404.2	X	0	0	534,776	1,654,024	
108	330		253°9'	+10.5°	6.8	-		-6.8		1402.8		-36	-328	534,740	1,653,696	
109	660		254°54.9'	+10.5°	8.1	89°54'	+1.2	-6.9		1402.7	TP	-53	-658	534,723	1,653,366	First sta. in
109	660				7.8	89°56'	+0.8	-7.0		1402.6	TP					wheat
	990		82°36.0'+180°	+10.5°	+3.2	-		+3.2			BS	+54	-989			
	990				+8.1	TH	-5.0	+3.1	1.4057		BS					
110	660		82°36.0'	+10.5°	2.1	-		-2.1		1.403.6		-36	+659	534,741	1,653,036	
111	330		" "	" "	2.6	-		-2.6		1403.1		-18	+330	534,759	1,652,707	
112	0				5.4	-		-5.4		1400.3	X	0	0	534,777	1,652,377	
113	330		261°28.9'	+10.5°	6.7	-		-6.7		1.399.0		+11	-330	534,788	1,652,047	Last sta. in
114	660		" "	" "	7.4	-		-7.4		1.398.3		+23	-660	534,800	1,651,717	cross-country
115	990		" "	" "	2.2	89°30'	+8.6	+6.4		1.412.1		+34	-989	534,811	1,651,388	
115	1120		261°21.6'	+10.5°	4.7	89°10'	+16.3	+11.6		1.417.3		+36	-1119	534,813	1,651,258	
116	1320		261°28.9'	+10.5°	4.2	89°12'	+18.4	+14.2		1.419.9	TP	+46	-1319	534,823	1,651,058	
116	1320				+4.9	89°10'	+19.2	+14.3			TP					
					+						BS					
					+						BS					

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE 4/22/79	INSTRUMENT MAN G. Catcamp	ROD MAN W. Krol	PARTY NUMBER 6834	NOTES CHECKED BY Walt Krol	LINE NO. 3	PAGE 9
AREA Oklahoma	TOPO MAP Warren	STATE Oklahoma	COUNTY Jackson	TWP 4 N	RANGE 19 W	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				
116										1.419.9									
	1650		80°37.4' +180°	+10.5°	+126	-		+12.6	1432.5		BS	+32	-1650			534,823	1,651,058		
	1650				+4.4	BH	+8 3	+12.7			BS								
117	1320		80°37.4'	+10.5°	10.0	-		-10.0		1422.5		-26	+1320			534,829	1,650,728		
118	990		" "	"	8.1	-		-8.1		1.424.4		-19	+990			534,836	1,650,398		
119	660		" "	"	7.0	-		-7.0		1425.5		-13	+660			534,842	1,650,258		
120	330		" "	"	6.0	-		-6.0		1426.5		-6	+330			534,849	1,649,738		
121	0				5.4	-		-5.4		1427.7	TP	0	0			534,855	1,649,408		
122	330		261°23.9'	+10.5°	4.0	-		-4.0		1428.5		+11	-330			534,866	1,649,078		
123	660		" "	"	2.8	-		-2.8		1429.7		+22	-660			534,877	1,648,748		
124	990		" "	"	4.3	TH	+50	+0.7		1433.2		+33	-989			534,888	1,648,419		
125	1320		" "	"	13.9	89°	+23.0	+9.1		1441.6		+44	-1319			534,899	1,648,089		
126	1650		" "	"	7.4	89°	+28.8	+21.4		1453.9		+55	-1649			534,910	1,647,759		
127	1980		261°23.9'	+10.5°	3.4	89°	+34.6	+31.2		1.463.6	TP	+66	-1979			534,921	1,647,429	note: vertical correction	
127	1980		" "	"	14.9	88°40'	+46.1	+31.2			TP							minus one tenth on T.P.s	
	990		80°10.5' +180°	+10.5°	+9.4	-		+9.4			BS	+12	-990					and BS's. -26'	
	990				+14.3	TH	-50	+9.3	1.4728		BS								
128	660		80°10.5'	+10.5°	6.9	-		-6.9		1465.9		-8	+660			534,925	1,647,099	y = -7'	
129	330		" "	"	6.8	-		-6.8		1466.0		-4	+330			534,927	1,646,769	x = -3'	
±	273		79°36'	-10.5°	6.4	-		-6.4		1466.4		0	+273			534,933	1,646,712	534,940 = 1,646,715(s) 4-way Intersect. 1465 elev.	
130	0				5.4	-		-5.4		1.467.4	TP	0	0			534,933	1,646,439	narrow road	

SURVEY NOTES-HIGH RESOLUTION DATA
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Geosource Inc.

DATE 1/20/9	INSTRUMENT MAN G. Colcamp	ROD MAN W. Neal	PARTY NUMBER 6834	NOTES CHECKED BY Walt Keol	LINE NO. 3	PAGE 10
AREA Oklahoma	TOPO MAP Warren	STATE Oklahoma	COUNTY Jackson	TWP 4 N	RANGE 19 W	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 - LAT.	EAST + WEST - DEP.	COORDINATES		REMARKS	
														Y	X		
									1.472.8								
131	330		258° 21.5'	+10.5°	5.5	-		-5.5		1.467.3		-7	-330	534,926	1,646,109	narrow Trail	
132	660		258° 21.5'	+10.8°	8.0	TH	+33	-4.7		1.46	TP	-10	-660+1	534,923	1,645,780		
132	660				8.6	89° 40'	+38	-4.8		1.467.9	TP						
	660		80° 44.5' + 180°	+10.8°	10.3	-		+10.3	1478.1		BS	+18	-660+1				
	660				13.6	TH	-3.3	+10.3			BS						
133	330		80° 44.5'	+10.8°	4.8	91° -	-5.8	-10.6		1.467.5		-9	+330	534,932	1,645,451		
134	0				5.4	-		-5.4		1.472.7	TP	0	0	534,941	1,645,121		
135	330		260° 13'	+10.8°	5.3	-		-5.3		1.472.8		+6	-330	534,947	1,644,791	v	
136	660		" "	" "	7.3	-		-7.3		1.470.8		+12	-660	534,953	1,644,461		
137	990		260° 13'	+10.8°	5.5	8H	-5.0	-10.5		1.467.5	TP	+18	-990+1	534,959	1,644,132		
137	990				5.8	90° 16'	-4.6	-10.4			TP						
	330		77° 49.8' + 180°	+10.8°	14.9	91° 10'	+6.7	+21.6	1.489.0		BS	-8	-330+1				
	330				13.0	91° 30'	+8.6	+21.6			BS						
138	0				5.4	-		-5.4		1.483.6	TP	0	0	534,951	1,643,803	set up opposite station	
139	330		261° 2'	+10.8°	6.2	-		-6.2		1.482.8		+11	-330	534,962	1,643,473		
140	660		" "	" "	5.3	90° 40'	-7.7	-13.0		1.476.0		+21	-660	534,972	1,643,143		
141	990		261° 2'	+10.8°	1.7	90° 40'	-11.5	-13.2		1.475.7	TP	+32	-990+1	534,983	1,642,814		
141	990				4.5	90° 30'	8.6	-13.1			TP						
	330		78° 23.8' + 180°	+10.8°	6.2	-		+6.2	1481.8		BS	-5	-330+1				
	330				7.9	TH	-1.7	+6.2			BS						

SURVEY NOTES-HIGH RESOLUTION DATA
GEO-445

Geosource Inc.

DATE 4/22/79	INSTRUMENT MAN G. Coisamp	ROD MAN W. Krol	PARTY NUMBER 6834	NOTES CHECKED BY Walt Krol	LINE NO. 3	PAGE 11
AREA Oklahoma	TOPO MAP Warren	STATE Oklahoma	COUNTY Jackson	TWP 4 N	RANGE 19 W	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			
									1481.8									
142	0				54	-		-5.4		1.4764	T	0	0	534,978	1,642,485			narrow trail
143	330		258°48'	+10.8°	98	91°	+5.8	-4.0		1.4777	TP	-2	-330+	534,976	1,642,156			
143	330				-11.7	88°40'	+7.7	-4.0			TP							
	660		79° 2.3'+180°	+10.8°	+28	-		+2.8	1.4804		BS	-2	-660+					
	660				+6.1	TH	-3.3	+2.8			BS							
144	330		79° 2.3'	+10.8°	5.5	-		-5.5		1.4749		+1	+330	534,975	1,641,827			
145	0				5.4	-		-5.4		1.475.0	T	0	0	534,974	1,641,497			set-up opposite station
145	38		265° 45'	+10.8°	4.6	-		-4.6		1.475.8		+4	-38	534,978	1,641,459			535,010+1,641,470 (5) A-Way Intersect 1475 elev
146	330		259° 30.6'	+10.8°	2.2	-		-2.2		1.478.2		+2	-330	534,976	1,641,167			
147	660		259° 30.6'	+10.9°	5.3	89°12'	+9.2	+3.9		1.484.2	TP	+5-1	-660	534,978	1,640,837			narrow trail
147	660				-3.8	89°20'	+7.7	+3.9			TP							
	660		80° 15.2'+180°	+10.9°	+5.9	90°40'	+7.7	+13.6			BS	+13-1	-660					
	660				+8.9	90°24'	+4.6	+13.5	1.497.6		BS							
148	330		80° 15.2'	+10.9°	7.3	-		-7.3		1.490.3		-7	+330	534,983	1,640,507			
149	0				5.4	-		-5.4		1.492.2	T	0	0	534,990	1,640,177			
150	330		263° 11.2'	+10.9°	-1.0	-		-1.0		1.496.5	TP	+24-1	-329	535,013	1,639,848			
150	330				-2.6	TH	+1.7	-0.9			TP							
	330		79° 49'+180°	+10.9°	+9.1	-		+9.1	1.505.5		BS	+4-1	-330					
	330				+7.4	BH	+1.7	+9.1			BS							
151	0				5.4	-		-5.4		1.500.1	T	0	0	535,016	1,639,518			

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE			
4/22/79		G. Cotcamp				6834		Walt Kral		3		12			
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER	
Oklahoma		Warren		Oklahoma		Jackson		4 N		19 W				L. D. 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
									1.5055						
152	330		259° 12.3'	+10.9°	0.8	TH	+1.7	+0.9		1.5063	TP	+1-1	-330	535,016	1,639,188 narrow trail
152	330				-2.0	89°30'	+2.9	+0.9			TP				
	330		82° 39' +180°	+10.9°	+9.8	-		+9.8	1.516.0		BS	+20-1	-329		
	330				+11.5	TH	-1.7	+9.8			BS				
153	0				5.4	-		-5.4		1.510.6	TP	0	0	535,035	1,638,859
154	330		260° 56.7'	+10.9°	2.4	89°-	+5.8	+3.4		1.509.4		+11	-330	535,046	1,638,529
155	660		260° 56.7'	+10.9°	9.4	88°-	+23.0	+13.6		1.529.5	TP	+21-1	-660	535,055	1,638,199
155	660				-4.8	88°24'	+18.4	+13.6			TP				
	330		82° 4.9' +180°	+10.9°	+4.9	-		+4.9	1.524.3		BS	+17-1	-330		
	330				+6.6	TH	-1.7	+4.9			BS				
156	0				5.4	-		-5.4		1.528.9	TP	0	0	535,071	1,637,869
157	330		259° 16'	+10.9°	2.0	88°-	+11.5	+9.5		1.543.8		+1	-330	535,072	1,637,539
158	660	659	259° 16'	+10.9°	13.5	87°-	+34.5	+21.0		1.555.2	TP	+2-1	-659	535,072	1,637,210
158	660				-9.6	87°20'	+30.7	+21.1			TP				
	330		79° 41.2' +180°	+10.9°	+2.0	89°-	-5.8	-3.8	1.551.3		BS	+3-1	-330		
	330				+1.1	89°10'	-4.8	-3.7			BS				
159	0				5.4	-		-5.4		1.545.9	TP	0	0	535,074	1,636,880 set-up opposite station
160	330		260° 0.3'	+10.9°	-0.8	-		-0.8		1.550.4	TP	+5-1	-330	535,078	1,636,550
160	330				-2.5	TH	+1.7	-0.8			TP				

DATE 4/22/79	INSTRUMENT MAN G. Cotcamp	ROD MAN W. Krol	PARTY NUMBER 6837	NOTES CHECKED BY Walt Krol	LINE NO. 3	PAGE 13
AREA Oklahoma	TOPO MAP Warren	STATE Oklahoma	COUNTY Tarkenton	TWP 4 N	RANGE 19 W	PPM
				PARTY MANAGER L.D. 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	
160										1,550.4						
	330		82° 33.7' +180°	+10.9°	+13.8	-		+13.8	1.564.1		BS	+20 -1	-329			
	330				+12.2	BH	+1.7	+13.9			BS					
161	0				54	-		-5.4		1558.7	T	0	0	535,097	1,636,221	535,090 + 1,636,135 (S)
	85		254° 19'	+10.9°	1.7	-		-1.7		1.562.4		-7	-85	535,090	1,636,136	4-Way Intersect 156' elev
162	330		261° -	+10.6°	-1.6	89° -	+5.8	+4.2			TP	+9 -2	-330 +3	535,104	1,635,894	
162	330				-2.6	88° 50'	+6.7	+4.1		1.568.1	TP					
	1650		80° 51' +180°	+10.6°	+13.6	89° -	-28.8	-15.2			BS	+42 -2	-1649 +3			
	1650				+4.9	89° 18'	-20.2	-15.3	1.552.7		BS					
163	1320		80° 51'	+10.6°	3.5	89° 30'	+11.5	+8.0		1560.7		-33	+1320	535,111	1,635,568	
164	990		" "	" "	1.9	-		-1.9		1550.8		-25	+990	535,119	1,635,238	
165	660		" "	" "	7.7	-		-7.7		1545.0		-17	+660	535,127	1,634,908	
166	330		" "	" "	11.3	91° -	-5.8	-17.1		1535.6		-8	+330	535,136	1,634,578	
167	0				EA	-		-5.4		1547.3	T	0	0	535,144	1,634,248	
168	330		260° 23.2'	+10.6°	3.7	-		-3.7		1549.0		+6	-330	535,150	1,633,918	
169	660		" "	" "	5.1	89° -	+11.5	+6.4		1559.1		+11	-660	535,155	1,633,588	
170	990		" "	" "	5.1	89° -	+17.3	+12.2		1564.9		+17	-990	535,161	1,633,258	
171	1320		" "	" "	6.8	89° -	+23.0	+16.2		1568.9		+23	-1320	535,167	1,632,928	
172	1650		260° 23.2'	+10.6°	-12.4	89° 10'	+24.0	+11.6		1.564.2	TP	+28 -2	-1650 +2	535,170	1,632,600	
172	1650				-14.3	89° 06'	+25.9	+11.6			TP					

DATE 1/20/10	INSTRUMENT MAN B. Stump	ROD MAN W. Krol	PARTY NUMBER 2824	NOTES CHECKED BY Walt Krol	LINE NO. 3	PAGE 14
AREA Okechobe	TOPO MAP 125100	STATE FL	COUNTY Polk	TWP 4N	RANGE 19W	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 - LAT.	EAST + WEST - DEP.	COORDINATES		REMARKS
														Y	X	
172										1564.2						
	660		80°38.2'+180°	+10.6°	+4.9	-		+4.9	1569.0		BS	+14-2	-660+2			
	660				+8.2	TH	-3.3	+4.9			BS					
173	330		80°38.2'	+10.6°	6.7	-		-6.7		1562.3		-7	+330	535,175	1,632,272	
174	0				5.4	-		-5.4		1563.6	TP	0	0	535,182	1,631,942	
175	330		260°47'	+10.6°	11.3	91°-	-5.8	-17.1		1551.9		+8	-330	535,190	1,631,612	
176	660		" "	" "	12.8	91°-	-11.5	-24.3		1544.7		+16	-660	535,198	1,631,282	
177	990		260°19.6'	+10.6°	13.1	GH	-5.0	-18.1		1,550.9	TP	+16-2	-990+2	535,196	1,630,954	
177	990				-14.0	90°14'	-4.0	-18.0			TP					
	316		78°11.2'+180°	+10.6°	+14.9	87°46'	-12.3	+2.6	1553.5		BS	-7-1	-316+2			shooting across curve
	316				+14.5	87°50'	-11.9	+2.6			BS					
178	308		78°15.8'	+10.6°	14.5	87°52'	+11.5	-3.0		1550.5		+6	+308	535,194	1,630,948	535,194, 1,630,964 (notes) offset 4-way el. 1550.5
178	0				5.4	-		-5.4		1548.1	TP	0	0	535,188	1,630,640	(Line # 2 - tie) Line # 2 page 32
179	330		261°26'	+10.6°	5.4	88°-	+11.5	+6.1		1559.6		+12	-330	535,200	1,630,310	vertical correction -2.6
180	660		261°26'	+10.6°	-13.7	88°10'	+21.1	+7.4		1560.9	TP	+23-1	-660+2	535,210	1,629,982	
180	660				-9.9	88°30'	+17.3	+7.4			TP					
	1320		79°54'+180°	+10.6°	+3.2	91°-	+23.0	+26.2	1587.1		BS	+12-1	-1320+2			
	1320				+7.1	90°50'	+19.2	+26.3			BS					
181	990	989	79°54'	+10.6°	13.6	92°20'	-40.3	-53.9		1533.2		-9	+989	535,212	1,629,653	
182	660	658	" "	" "	5.3	94°-	-45.9	-51.2		1535.9		-6	+658	535,215	1,629,322	
183	330		" "	" "	8.0	93°-	-17.2	-25.2		1561.9		-3	+330	535,218	1,628,994	

SURVEY NOTES-HIGH RESOLUTION DATA
GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE						
4/22/79		G. Cotcamp		W. Krol		6834		Walt Krol		3	15						
AREA		TOPO MAP		STATE	COUNTY		TWP	RANGE	PPM	PARTY MANAGER							
Oklahoma		Warren/Blair		Oklahoma	Jackson		4N	19 W/20W		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		
									1587.1								
184	0			-	5.4	-		-5.4		1.581.7	T	0	0	535,221	1,628,664		
185	330		260° 12.1'	+10.6°	0.4	-		-0.4		-1.586.7		+5	-330	535,226	1,628,334		
186	660		" "	" "	8.0	89°-	+11.5	+3.5		1.590.6		+9	-6.60	535,230	1,628,004		
187	990		" "	" "	3.2	89°-	+17.3	+14.1		1.601.2		+14	-9.90	535,235	1,627,674		
188	1320		260° 12.1'	+10.6°	-8.5	89°-	+23.0	+14.5		1.601.6	TP	+18-1	-1320+2	535,238	1,627,346		
188	1320				-14.8	88°44'	+29.2	+14.4			TP						
	1320		81° 4.5' +180°	+10.6°	+14.8	90°22'	+8.4	+23.2			BS	+39-1	-1319+2				
	1320				+10.2	90°34'	+13.1	+23.3	1624.9		BS						
189	990		81° 4.5'	+10.6°	6.6	91°-	-17.3	-23.9		1.601.0		-2.9	+9.90	535,247	1,627,019		
190	660		" "	" "	12.3	-		-12.3		1.612.6		-1.9	+6.60	535,257	1,626,689		
191	330		" "	" "	9.3	-		-9.3		1.615.6		-1.0	+3.30	535,266	1,626,359	↑	
192	0				5.4	-		-5.4		1.619.5	T	0	0	535,276	1,626,029	R 19 W	
193	330		260° 43.4'	+10.6°	9.5	-		-9.5		1.615.4		+8	-3.30	535,284	1,625,699	R 20 W	
194	660		" "	" "	5.2	-		-5.2		1.619.7		+1.5	-6.60	535,291	1,625,369	↑↓	
195	990		" "	" "	5.8	-		-5.8		1.619.1		+2.3	-9.90	535,299	1,625,039	Warren Road.	
196	1320		260° 43.4'	+10.6°	2.1	-		-2.1		1.622.8	TP	+30-1	-1320+2	535,305	1,624,711	Blair Road	
196	1320				-8.7	TH	+6.6	-2.1			TP					↓	
	1320		79° 15.3' +180°	+10.6°	+13.8	BH	+6.6	+20.4	1.643.2		BS	-3-1	-1320+2				
	1320				+14.3	90°16'	+6.1	+20.4			BS						
197	990		79° 15.3'	+10.6°	7.8	90°40'	-11.5	-19.3		1.623.9		+3	+9.90	535,304	1,624,383		

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE 4/22/79	INSTRUMENT MAN G. Cotcamp	ROD MAN W. Krol	PARTY NUMBER 6834	NOTES CHECKED BY Walt Krol	LINE NO. 3	PAGE 16
AREA Oklahoma	TOPO MAP Blair 7.5'	STATE Oklahoma	COUNTY Jackson	TWP 4 N	RANGE 20 W	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			
									1.643.2									
198	660		79° 15.3'	+10.6°	9.4	90° 40'	-7.7	-17.1		1.626.1		+2	+660	535,303	1,624,053			
199	330		" "	" "	12.9	90° 40'	-3.8	-16.7		1.626.5		+1	+330	535,302	1,623,723			
200	0				5.4	-		-5.4		1.637.8	π	0	0	535,301	1,623,393			
201	330		259° 42.3'	+10.6°	4.9	88° -	+11.5	+7.1		1.650.3		+2	-330	535,303	1,623,063			
202	660		" "	" "	8.4	88° -	+23.0	+14.6		1.657.8		+4	-660	535,305	1,622,733			
203	990		259° 42.3'	+10.6°	-10.8	88° -	+34.5	+23.7			TP	+5-1	-990+2	535,305	1,622,405			
203	990				-5.0	88° 20'	+28.8	+23.8		1.667.0	TP							
	1320		80° 27.2' + 180°	+10.6°	+11.4	BH	+6.6	+18.0			BS	+24-2	-1320+2					
	1320				+15.0	90° 8'	+3.1	+18.1	1.685.1		BS							
204	990		80° 27.2'	+10.6°	4.6	91° -	-17.3	-21.9		1.663.2		-18	+990	535,309	1,622,077			
205	660		" "	" "	13.7	-		-13.7		1.671.4		-12	+660	535,315	1,621,747			
206	330		" "	" "	8.1	-		-8.1		1.677.0		-6	+330	535,321	1,621,417			
207	0				5.4	-		-5.4		1.679.7	π	0	0	535,327	1,621,087			
208	330		261° 2.5'	+10.6°	5.7	-		-5.7		1.679.4		+9	-330	535,336	1,620,757			
JL TF	495		259° 46'	+10.6°	5.1	-		-5.1		1.680.0		+3	-495	535,330	1,620,592			Horiz. corr. x = 38', y = 32', 535,330 + 1,620,592 (s) A-Way Intersect. 1.680° elev.
209	660		261° 2.5'	+10.6°	3.4	-		-3.4		1.681.7		+19	-660	535,346	1,620,427			
210	990		261° 2.5'	+10.6°	-2.3	TH	+5.0	+2.7		1.687.8	TP	+28	-990	535,355	1,620,097			
210	990				-4.8	89° 34'	+7.5	+2.7			TP							

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE 4/23/79	INSTRUMENT MAN R. Hulsey	ROD MAN W. Krol	PARTY NUMBER 6834	NOTES CHECKED BY Walt Krol	LINE NO. 3	PAGE 17
AREA Oklahoma	TOPO MAP Blair	STATE Oklahoma	COUNTY Jackson	TWP 4 N	RANGE 20 W	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				
210										1.687.8									
	1650		81° 9.1' +180°	+10.6°	+6.2	90° 32'	+15.4	+21.6	1709.4		BS	+50	-1649						
	1650				+7.2	90° 30'	+14.4	+21.6			BS								
211	1320		81° 9.1'	+10.6°	9.5	-		-9.5		1.699.9		-40	+1319	535.365	1.619.767				
212	990		" "	"	12.8	-		-12.8		1.696.6		-30	+990	535.375	1.619.438				
213	660		" "	"	9.4	-		-9.4		1.700.0		-20	+660	535.385	1.619.108				
214	330		" "	"	9.9	-		-9.9		1.699.5		-10	+330	535.395	1.618.778				
215	0				5.4	-		-5.4		1.704.0	TP	0	0	535.405	1.618.448				
216	330		260° 17.5'	+10.6°	11.5	92° -	-11.5	-23.0		1.686.4		+5	-330	535.410	1.618.118				
217	660		" "	"	12.2	91° 50'	-21.1	-33.3		1.676.1		+10	-660	535.415	1.617.788				
218	990		" "	"	13.2	91° 20'	-23.0	-36.2		1.673.2		+15	-990	535.420	1.617.458				
219	1320		" "	"	12.9	90° 50'	-19.2	-32.1		1.677.3		+21	-1320	535.426	1.617.128				
220	1650		" "	"	11.1	91° -	-28.8	-39.9		1.669.5		+26	-1650	535.431	1.616.798				
221	1980		260° 17.5'	+10.6°	12.5	90° 50'	-28.8	-41.3			TP	+31	-1980	535.436	1.616.468				
221	1980				6.6	91° -	-34.6	-41.2		1.668.2	TP								
	990		80° 13.6' +180	+10.6°	+1.2	88° 56'	-20.2	-19.0	1.649.2		BS	+14	-990-2						
	990				+4.1	88° 40'	-23.0	-18.9			BS								
222	660		80° 13.6'	+10.6°	1.9	89° 20'	+7.7	+5.8		1.655.0		-10	+660	535.440	1.616.136				
223	330		" "		2.8	-		-2.8		1.646.4		-5	+330	535.445	1.615.806				
224	0				5.4	-		-5.4		1.643.8	TP	0	0	535.450	1.615.476				
77	185		258° 24'	+10.6°	14.3	BH	0.9	-15.2		1.634.0		-3	-185	535.447	1.615.291			535.435 + 1.615.280 (s) away int. 1634' elev.	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE		
4-23-79		R. Hulsy		W. Krol		6834		Walt Krol		3		18		
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		
Oklahoma		Blair 7.5'		OK		Jackson		4 N		20 W		PARTY MANAGER 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.	
									1649.2					
225	330		260° 1.4'	+10.8°	12.6	91°40'	-9.6	-22.2		1627.0		+5	-330	535,455 1,615.146
226	660		" "	"	12.2	92°-	-23.0	-35.2		1614.0		+9	-660	535,459 1,614.816
227	990		" "	"	12.1	92°10'	-37.0	-49.5		1599.7		+14	-990	535,464 1,614.486
228	1320		260° 1.4'	+10.8°	10.1	92°10'	-49.9	-60.0		1589.2	TP	+19	-1320	535,469 1,614.153
228	1320				6.3	92°20'	-53.7	-60.0			TP			
	1650		79°43.2'+180°	+10.8°	+6.0	89°-	-28.8	-22.8	1566.4		BS	+15	-1650	
	1650				+1.2	89°10'	-24.0	-22.8			BS			
229	1320		79°43.2'	+10.8°	0.8	89°20'	+15.4	+14.6		1581.0		-12	+1320	535,472 1,613,820
230	990		" "	"	1.8	89°30'	+8.6	+6.8		1573.2		-9	+990	535,475 1,613,490
231	660		" "	"	1.7	89°40'	+3.8	+2.1		1568.5		-6	+660	535,478 1,613,160
232	330		" "	"	0.2	-	-	-0.2		1566.2		-3	+330	535,481 1,612,830
233	0				5.4	-	-	-5.4		1561.0	TP	0	0	535,484 1,612,500
234	330		260° 16.2'	+10.8°	12.9	-	-	-12.9		1553.5		+6	-330	535,490 1,612,170
235	660		" "	"	11.5	90°30'	-5.8	-17.3		1549.1		+12	-660	535,496 1,611,840
236	990		" "	"	12.2	90°30'	-8.6	-20.8		1545.6		+18	-990	535,502 1,611,510
237	1320		" "	"	11.8	90°30'	-11.5	-23.3		1543.1		+25	-1320	535,509 1,611,180
238	1650		" "	"	11.6	90°30'	-14.4	-26.0		1540.3		+31	-1650	535,515 1,610,850
239	1980		260° 16.2'	+10.8°	10.8	90°30'	-17.3	-28.1		1538.3	TP	+37	-1980	535,521 1,610,517
239	1980				5.0	90°40'	-23.0	-28.0			TP			

DATE 4-23-79	INSTRUMENT MAN R. Hulsey	ROD MAN W. Krol	PARTY NUMBER 6834	NOTES CHECKED BY Walt Krol	LINE NO. 3	PAGE 19
AREA Oklahoma	TOPO MAP Blair 7.5'	STATE Oklahoma	COUNTY Jackson	TWP 4 N	RANGE 20 W	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			
239										1.538.3								
	1980		79°24.6'±180°	+11.0°	+3.6	89°30'	-17.3	-13.7	1524.6		BS	+14	-1980.3					
	1980				+9.4	89°20'	-23.0	-13.6			BS							
240	1650		79°24.6'	+11.0°	1.5	89°40'	+9.6	+8.1		1.532.7		-12	+1650	535.523	1.610.184			
241	+320																	
FF	1400		79°41°	+11.0°	1.7	89°40'	+8.1	+6.4		1531.0		-17	+1400	535.518	1.609.934		535,520+1,609,930(s) Away int. 1531 elev.	
241	1320		79°24.6'	+11.0°	2.2	89°40'	+7.7	+5.5		1530.1		-9	+1320	535.526	1.609.854			
242	990		" "	"	2.0	89°40'	+5.8	+3.8		1528.4		-7	+990	535.528	1.609.524			
243	660		" "	"	0.4	89°50'	+1.9	+1.5		1526.1		-5	+660	535.530	1.609.194			
244	330		" "	"	2.1	-	-	-2.1		1522.5		-2	+330	535.533	1.608.864			
245	0				5.4	-	-	-5.4		1519.2	TP	0	0	535.535	1.608.534			
246	330		259°19.9'	+11.2°	8.6	-	-	-8.6		1516.0		+3	-330	535.538	1.608.204			
247	660		" "	"	10.5	-	-	-10.5		1514.1		+6	-660	535.541	1.607.874			
248	990		" "	"	11.9	-	-	-11.9		1512.7		+9	-990	535.544	1.607.544			
249	1320		" "	"	7.3	BH	-6.6	-13.9		1510.7		+12	-1320	535.547	1.607.214			
250	1650		" "	"	8.4	BH	-8.3	-16.7		1507.9		+15	-1650	535.550	1.606.884			
251	1980		" "	"	8.1	BH	-9.9	-18.0		1506.6		+18	-1980	535.553	1.606.554			
252	2310		" "	"	8.9	BH	-11.6	-20.5		1504.1		+21	-2310	535.556	1.606.224			
253	2640		" "	"	9.0	BH	-13.2	-22.2		1502.4		+24	-2640	535.559	1.605.894			
254	2970		259°19.9'	+11.2°	7.0	BH	-14.9	-21.9	-21.7	1.502.9	TP	+28	-2970	535.563	1.605.564			
254	2970				12.9	90°10'	-8.6	-21.5			TP							

SURVEY NOTES-HIGH RESOLUTION DATA

Geosource Inc.

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DATE 4-23-79	INSTRUMENT MAN R. Hulsey	ROD MAN W. Kro	PARTY NUMBER 6834	NOTES CHECKED BY Walt Kro	LINE NO. 3	PAGE 20
AREA Oklahoma	TOPO MAP Blair 7.5'	STATE Oklahoma	COUNTY Jackson	TWP 4N	RANGE 20W	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			
254										1502.9								
	1980		80° 7.9' +180°	+11.2°	3.2	=		+3.2			BS	+46	-1979					
	1980				13.0	TH	-9.9	+3.1	1506.0		BS							
255	1650		80° 7.9'	+11.2°	1.6	-		-1.6		1504.4		-38	+1650	535.571	1.605.235			
256	1320		" "	+11.2°	5.0	-		-5.0		1501.0		-31	+1320	535.578	1.604.905			
257	990		80° 7.9'	+11.2°	6.8	-		-6.8		1499.2		-23	+990	535.586	1.604.575			
257	990		80° 33'	+11.2°	6.8	-		-6.8		1499.2		-30	+990	535.579	1.604.575			
258	660		80° 7.9'	+11.2°	5.9	-		-5.9		1500.1		-15	+660	535.594	1.604.245			Way Interest 1499 dev. 35,590 + 1,604,575(s)
259	330		" "	"	6.4	-		-6.4		1499.6		-8	+330	535.601	1.603.915			
260	0				5.4	-		-5.4		1500.6	TP	0	0	535.609	1.603.585			
261	330		260° 7.1'	+11.4°	3.9	-		-3.9		1502.1		+9	-330	535.618	1.603.255			
262	660		" "	"	6.6	-		-6.6		1499.4		+17	-660	535.624	1.602.925			
263	990		" "	"	7.1	-		-7.1		1498.9		+26	-990	535.635	1.602.595			
264	1320		" "	"	7.9	-		-7.9		1498.1		+35	-1320	535.644	1.602.265			
265	1650		" "	"	11.2	-		-11.2		1494.8		+44	-1649	535.653	1.601.936			
266	1980		240° 7.1'	+11.4°	13.2	-		-13.2		1492.8	TP	+52	-1979.4	535.661	1.601.610			
266	1980				3.3	BH	-9.9	-13.2			TP							
	1650		80° 1.5' +180°	+11.4°	+5.2	TH	-8.3	-3.1	1489.7		BS	+41	-1649.4					
	1650				+11.3	89° 30'	-14.4	-3.1			BS							
267	1320		80° 1.5'	+11.4°	5.9	TH	+6.6	+0.7		1490.4		-33	+1320	535.669	1.601.277			
268	990		" "	"	1.4	-		-1.4		1488.3		-25	+990	535.677	1.600.947			
269	660		" "	"	3.8	-		-3.8		1485.9		-16	+660	535.686	1.600.617			

DATE 4-23-79	INSTRUMENT MAN R. Hulsey	ROD MAN W. Krol	PARTY NUMBER 6534	NOTES CHECKED BY Walt Krol	LINE NO. 3	PAGE 21
AREA Oklahoma	TOPO MAP Blair	STATE Oklahoma	COUNTY Jackson	TWP 4N	RANGE 20W	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.	
									1489.7					
270	330			+11.4°	4.4	-		-4.4		1485.3		-8	+330	535,694 1,600,295
271	0				5.4	-		-5.4		1484.3	π	0	0	535,702 1,599,965
272	330		259° 59.1'	+11.4°	7.1	-		-7.1		1482.6		+8	-330	535,710 1,599,635
273	660		" "	"	8.7	-		-8.7		1481.0		+16	-660	535,718 1,599,305
FF	725		259° 46'	+11.4°	8.1	-		-8.1		1481.6		+15	-725	535,717 1,599,232 away mt. 1481 elev
274	990		259° 59.1'	+11.4°	8.1	-		-8.1		1481.6		+24	-990	535,726 1,598,975
###	1020		259° 40'	+11.4°	7.0	-		-7.0		1482.7		+19	-1020	535,721 1,598,945
275	1320		259° 59.1'	+11.4°	12.0	-		-12.0		1477.7		+32	-1320	535,734 1,598,145
276	1650		259° 59.1'	+11.1°	14.6	-		-14.6			TP	+31	-1650	535,733 1,598,319
276	1650				6.4	BH	-8.3	-14.7		1475.0	TP			
	1320		79° 33.6' +180°	+11.1°	+5.2	TH	-6.6	-1.4	1.473.7		BS	+15	-1320	
	1320				+2.6	89° 50'	-3.8	-1.2	1.3		BS			
277	990		79° 33.6'	+11.1°	0.6	-		-0.6		1473.1		-11	+990	535,737 1,597,989
278	660		" "	"	2.2	-		-2.2		1471.5		-8	+660	535,740 1,597,659
279	330		" "	"	3.8	-		-3.8		1469.9		-4	+330	535,744 1,597,329
280	0				5.4	-		-5.4		1468.3	π	0	0	535,748 1,596,999
281	330		259° 55.9'	+11.1°	7.5	-		-7.5		1466.2		+6	-330	535,754 1,596,669
282	660		" "		9.0	-		-9.0		1464.7		+12	-660	535,760 1,596,339
283	990		" "		10.6	-		-10.6		1463.1		+18	-990	535,766 1,596,009

DATE 4-23-79	INSTRUMENT MAN R. Hulsey	ROD MAN W. Krol	PARTY NUMBER 6834	NOTES CHECKED BY Walt Krol	LINE NO. 3	PAGE 22
AREA Oklahoma	TOPO MAP Blair 7.5'	STATE Oklahoma	COUNTY Jackson	TWP 4 N	RANGE 20 W/21	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 - LAT.	EAST+ WEST - DEP.	COORDINATES		REMARKS
														Y	X	
									1,473.7							
284	1320		259° 55.9'	+11.1°	12.1	-		-12.1		1,461.6	TP	+24	-1320	535,772	1,595,679	
284	1320				5.5	BH	-6.6	-12.15			TP					
	1320		79° 26.9' +180°	+11.1°	+5.2	TH	-6.6	-1.4	1,460.2		BS	+13	-1320			
	1320				+2.5	89° 50'	-3.8	-1.3			BS					
285	990		79° 26.9'	+11.1°	0.3	-		-0.3		1,459.9		-9	+990	535,776	1,595,349	
286	660		" "	"	2.3	-		-2.3		1,457.9		-6	+660	535,779	1,595,019	
287	330		" "	"	3.8	-		-3.8		1,456.4		-3	+330	535,782	1,594,689	
288	0				5.4	-		-5.4		1,454.8	T	0	0	535,785	1,594,359	R 20 W
1/4	285		258° 5'	+11.1°	7.7	-		-7.7		1,452.5		-4	-285	535,781	1,594,074	535,785 + 1,594,080 (S) Way int. 1452 elev.
289	330		259° 59.1'	+11.1°	9.5	-		-9.5		1,450.7		+6	-330	535,791	1,594,029	
290	660		" "	"	10.9	-		-10.9		1,449.3		+12	-660	535,797	1,593,699	R 21 W
291	990		" "	"	11.5	-		-11.5		1,448.7		+19	-990	535,804	1,593,369	
292	1320		259° 59.1'	+11.1°	12.7	-		-12.7		1,447.5	TP	+25	-1320	535,810	1,593,039	
292	1320				6.1	BH	-6.6	-12.7			TP					
	1320		79° 29.0' +180°	+11.1°	+3.2	-		+3.2	1,450.7		BS	+13	-1320			
	1320				+9.8	TH	-6.6	+3.2			BS					
293	990		79° 29'	+11.1°	3.6	-		-3.6		1,447.1		-10	+990	535,813	1,592,709	
294	660		" "	"	4.4	-		-4.4		1,446.3		-7	+660	535,816	1,592,379	
295	330		" "	"	5.8	-		-5.8		1,444.9		-3	+330	535,820	1,592,049	
296	0				5.4	⊖		-5.4		1,445.3	T	0	0	535,823	1,591,719	

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.	PAGE				
4-23-79		R. Hulse		W. Krol		6834		Walt Krol		3	23				
AREA		TOPO MAP		STATE		COUNTY		RANGE		PARTY MANAGER					
Oklahoma		Blair 7.5		Oklahoma		Jackson		21 W		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
									1450.7						
297	330		260° 12.4'	+11.1°	5.0	-		-5.0		1445.7		+8	-330	535,831	1,591,389
298	660		" "	"	5.2	-		-5.2		1445.5		+15	-660	535,838	1,591,059
299	990		" "	"	5.5	-		-5.5		1445.2		+23	-990	535,846	1,590,729
300	1320		260° 12.4'	+11.1°	-6.9	-		-6.9		1443.8	TP	+30	-1320	535,853	1,590,389
300	1320				-13.5	TH	+6.6	-6.9			TP				
	1320		79° 38.9' ± 80°	+11.1°	+4.7	-		+4.7			BS	+17	-1320		
	1320				+11.2	TH	-6.6	+4.6	1448.4		BS				
301	990		79° 38.9'	+11.1°	4.1	-		-4.1		1444.3		-13	+990	535,857	1,590,069
302	660		" "	"	6.0	-		-6.0		1442.4		-9	+660	535,861	1,589,739
303	330		" "	"	5.8	-		-5.8		1442.6		-4	+336	535,866	1,589,909
304	0				5.4	-		-5.4		1443.0	TP	0	0	535,870	1,589,079
305	330		260° 9.0'	+11.1°	5.5	-		-5.5		1442.9		+7	-330	535,877	1,588,799
305	352		258° 41'	+11.1°	5.6	-		-5.6		1442.8		-1	-352	535,883	1,588,729
306	660		260° 9.0'	+10.6°	6.1	-		-6.1		1442.3	TP	+9	-660	535,879	1,588,419
306	640				9.4	TH	+3.3	-6.1			TP				
	2640		80° 23.3' ± 180°	+10.6°	+5.0	90° 12'	+9.2	+14.2	1456.5		BS	+46	-2640		
	2640				+5.9	90° 11'	+8.4	+14.3			BS				
307	2310		80° 23.3'	+10.6°	3.9	BH	-11.6	-15.5		1441.0		-40	+2310	535,885	1,588,089
308	1980		" "	"	7.2	BH	-9.9	-17.1		1439.4		-34	+1980	535,891	1,587,759
309	1650		" "	"	6.8	BH	-8.3	-15.1		1441.4		-28	+1650	535,897	1,587,429

horiz. correct. $y = 0'$
 $x = 0'$
 535,870 + 1,588,730(s)
 4-Way Intersect. 1442 elev.

E.O.D.

DATE 4-26-79	INSTRUMENT MAN R. Hulsey		ROD MAN G. Cotcamp		PARTY NUMBER 6834		NOTES CHECKED BY R. Hulsey		LINE NO. 3	PAGE 24
AREA Oklahoma	TOPO MAP Hester 7.5'	STATE Oklahoma	COUNTY Jackson		TWP 4 N	RANGE 21 W	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				
									1456.5										
310	1320		80° 23.3'	+10.6°	12.5	-		-12.5		1444.0		-23	+1320	535,902	1,587,099			Hester Quad.	
311	990		" "	"	12.0	-		-12.0		1444.5		-17	+990	535,908	1,586,769				
312	660		" "	"	8.9	-		-8.9		1447.6		-11	+660	535,914	1,586,439			↓	
313	330		" "	"	6.4	-		-6.4		1450.1		-6	+330	535,919	1,586,109				
314	0				5.4	-		-5.4		1451.1	TP	0	0	535,925	1,585,779				
315	330		260° 25.4'	+10.6°	6.1	-		-6.1		1450.4		+6	-330	535,931	1,585,449				
316	660		" "	"	8.0	-		-8.0		1448.5		+12	-660	535,937	1,585,119				
317	990		" "	"	7.3	-		-7.3		1449.2		+18	-990	535,943	1,584,789				
318	1320		" "	"	5.7	-		-5.7		1450.8		+24	-1320	535,949	1,584,459				
319	1650		" "	"	5.2	-		-5.2		1451.3		+29	-1650	535,954	1,584,129				
320	1980		" "	"	7.1	-		-7.1		1449.4		+35	-1980	535,960	1,583,799			y=+6'	
321	2310		" "	"	5.3	-		-5.3		1451.2		+41	-2310	535,966	1,583,469			*=-1'	
≠	2370		260° 16.9'	+10.6°	4.6	-		-4.6		1451.9		+36	-2370	535,961	1,583,409			4-way int. sl. 1451	
322	2640		260° 25.4'	+10.6°	4.9	-		-4.9		1451.6	TP	+47	-2639	535,972	1,583,140				
322	2640				3.4	90° 02'	-1.5	-4.9			TP								
	2640		80° 23.8' + 180°	+10.6°	+7.0	-		+7.0	1458.4	+6.8	BS	+46	-2640						
	2640				+5.2	90° 02'	+1.5	+6.7			BS								
323	2310		80° 23.8'	+10.6°	7.1	-		-7.1		1451.3		-40	+2310	535,978	1,582,810				
324	1980		" "	"	9.6	-		-9.6		1448.8		-34	+1980	535,984	1,582,480			last sta. on trail	
325	1650		79° 32'	"	11.0	-		-11.0		1447.4		-4	+1650	536,014	1,582,150			in field (north of E-W fence)	

SURVEY NOTES-HIGH RESOLUTION DATA

GEO-445

Geosource Inc.

DATE		INSTRUMENT MAN		ROD MAN		PARTY NUMBER		NOTES CHECKED BY		LINE NO.		PAGE				
4-26-79		R. Hulsey		G. Cotcamp		6834		R. Hulsey		3		25				
AREA		TOPO MAP		STATE		COUNTY		TWP		RANGE		PPM		PARTY MANAGER		
Oklahoma		Hester 7.5'		Oklahoma		Jackson/Greer		4 N		21 W				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
									1458.4							
326	1320		78° 58'	+10.6°	12.4	-	-12.4		1446.0			+10	+1320	536,028	1,581,820	inf. ind
327	990		79° 05'	+10.6°	10.3	-	-10.3		1448.1			+7	+990	536,025	1,581,490	
328	660		78° 25'	+10.6°	8.4	-	-8.4		1450.0			+11	+660	536,029	1,581,160	
329	330		76° 25'	+10.6°	6.6	-	-6.6		1451.8			+17	+330	536,035	1,580,830	End of cross country
330	0				5.4	-	-5.4		1453.0		TP	0	0	536,018	1,580,500	
331	330		260° 30.1	+10.6°	5.8	-	-5.8		1452.6			+6	-330	536,024	1,580,170	
332	660		" "	" "	6.7	-	-6.7		1451.7			+13	-660	536,031	1,579,840	
333	990		" "	" "	7.5	-	-7.5		1450.9			+19	-990	536,037	1,579,510	
334	1320		" "	" "	7.5	-	-7.5		1450.9			+25	-1320	536,043	1,579,180	
335	1650		" "	" "	7.5	-	-7.5		1450.9			+32	-1650	536,050	1,578,850	
336	1980		" "	" "	6.4	-	-6.4		1452.0			+38	-1980	536,056	1,578,520	
337	2310		" "	" "	5.0	-	-5.0		1453.4			+44	-2310	536,062	1,578,190	y=0' ↑ x=0' Jackson Co. 536,060+1,578,080 4-way int. el. 1455 ⁽²⁾
338	2640		260° 30.1'	+10.6°	2.3	-	-2.3		1456.1			+42	-2420	536,060	1,578,080	
338	2640		260° 30.1'		5.5	89° 58'	+1.5	-4.0		1454.4	TP	+51	-2639	536,069	1,577,861	Misread rod 4-26-79 R.H. Greer Co.
	2640		79° 43.64180	+10.6°	+10.5	-	+10.5				BS	+15	-2640			↓
	2640				48.9	90° 02'	+1.5	+10.4	1464.8		BS					
339	2310		79° 43.6'	+10.6°	12.5	-	-12.5		1452.3			-13	+2310	536,071	1,577,531	
340	1980		" "	" "	13.3	-	-13.3		1451.5			-11	+1980	536,073	1,577,201	
341	1650		" "	" "	11.6	-	-11.6		1453.2			-9	+1650	536,075	1,576,871	

DATE 4-26-79	INSTRUMENT MAN R. Hulsey	ROD MAN G. Cotcamp	PARTY NUMBER 6834	NOTES CHECKED BY R. Hulsey	LINE NO. 3	PAGE 26
AREA Oklahoma	TOPO MAP Hester 7.5'	STATE Oklahoma	COUNTY Greer	TWP 4N	RANGE 21W	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			
									1464.8									
342	1320		79°43.6'	+10.6°	10.3	-		-10.3		1454.5		-8	+1320	536,076	1,576,591			
343	990		" "	"	9.1	-		-9.1		1455.7		-6	+990	536,078	1,576,211			
344	660		" "	"	7.8	-		-7.8		1457.0		-4	+660	536,080	1,575,881			
345	330		" "	"	7.3	-		-7.3		1457.5		-2	+330	536,082	1,575,551			
346	0				5.4	-		-5.4		1459.4	TP	0	0	536,084	1,575,221			
347	330		259°57.5'	+10.6°	4.1	-		-4.1		1460.7		+3	-330	536,087	1,574,891			
348	660		" "	"	3.9	-		-3.9		1460.9		+6	-660	536,090	1,574,561			
349	990		" "	"	3.9	-		-3.9		1460.9		+10	-990	536,094	1,574,231			
350	1320		" "	"	3.8	-		-3.8		1461.0		+13	-1320	536,097	1,573,901			
351	1650		" "	"	5.6	-		-5.6		1459.2		+16	-1650	536,100	1,573,571			
352	1980		" "	"	4.0	-		-4.0		1460.8		+19	-1980	536,103	1,573,241			
353	2310		" "	"	3.1	-		-3.1		1461.7		+23	-2310	536,107	1,572,911			
353	2435		259°55'	+10.6°	1.6	-		-1.6		1463.2		+22	-2435	536,106	1,572,786			y = -3' x = +6' 536,110 + 1,572,780(s) 4-way int. el. 1462
354	2640		259°57.5'	+10.6°	0.5	-		-0.5			TP	+26	-2640	536,110	1,572,581			Paved road ↓
354	2640				13.6	TH	+13.2	-0.4		1464.4	TP							
	2310		80°24.3' + 180°	+10.6°	+7.1	-		+7.1	1471.6	+7.2	BS	+41	-2310					
	2310				+8.6	89°58'	-1.3	+7.3			BS							
355	1980		80°24.3'	+10.6°	6.4	-		-6.4		1465.2		-35	+1980	536,116	1,572,251			
356	1650		" "	"	6.2	-		-6.2		1465.4		-29	+1650	536,122	1,571,921			
357	1320		" "	"	6.2	-		-6.2		1465.4		-23	+1320	536,128	1,571,591			

DATE 4-26-79	INSTRUMENT MAN R. Hulsey	ROD MAN G. Cotcamp	PARTY NUMBER 6834	NOTES CHECKED BY R. Hulsey	LINE NO. 3	PAGE 27
AREA Oklahoma	TOPO MAP Hester 7 1/2	STATE Oklahoma	COUNTY Greer	TWP 4 N	RANGE 21 W	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.	
									1471.6					
358	990		80° 24.3'	+10.6°	5.5	-		-5.5		1466.1		-17	+990	536,134, 1,571,261
359	660		" "	"	4.3	-		-4.3		1467.3		-12	+660	536,139, 1,570,931
360	330		" "	"	5.3	-		-5.3		1466.3		-6	+330	536,145, 1,570,601
361	0				5.4	-		-5.4		1466.2	TP	0	0	536,151, 1,570,271
362	330		260° 4.7'	+10.6°	5.3	-		-5.3		1466.3		+4	-330	536,155, 1,569,941
362	545		259° 30'	+10.6°	3.8	-		-3.8		1467.8		+1	-545	536,152, 1,569,726
363	660		260° 4.7'	+10.6°	4.5	-		-4.5		1467.1		+8	-660	536,159, 1,569,611
364	990		" "	"	4.2	-		-4.2		1467.4		+12	-990	536,163, 1,569,281
365	1320		" "	"	4.5	-		-4.5		1467.1		+16	-1320	536,167, 1,568,951
366	1650		" "	"	5.4	-		-5.4		1466.2		+20	-1650	536,171, 1,568,621
367	1980		260° 4.7'	+10.6°	7.3	-		-7.3		1464.3	TP	+23	-1980	536,174, 1,568,291
367	1980				6.2	90° 02'	-1.1	-7.3			TP			
	330		79° 44.1' +180°	+10.6°	+4.1	-		+4.1		1468.4	BS	+2	-330	
	330				+2.4	BH	+1.7	+4.1			BS			
368	0				5.4	-		-5.4		1463.0	TP	0	0	536,176, 1,567,961
369	330		260° 32'	+10.6°	7.0	-		-7.0		1461.4		+7	-330	536,169, 1,567,631
369	490		259° 38.3'	+10.6°	6.6	-		-6.6		1461.8	TP	+2	-490	536,178, 1,567,471
369	490				4.2	BH	-2.5	-6.7			TP			
	1300				+0.5	-		+0.5		1462.3	BS			
	1300				+7.0	TH	-6.5	+0.5			BS			Start traverse to tie.

y = +8'
x = +11'
EOL
536,170 + 1,567,460(s)
T-rd. el. 1458

