

#28

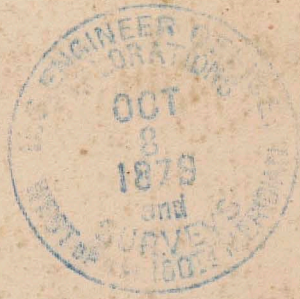
Cupboard	27
Shelf	1
No.	30
1 book	

*Computation Book*  
*from*  
*Carlin to Canyon Mojave*  
*P. W. Howell.*

AND DATA.  
EXPLORATIONS  
ENGINEERS' DEPARTMENT  
1871.

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No 28



Computer:

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
		Odometer N <sup>o</sup> 2 (one wheel) Circumference 11' 5 <sup>5</sup> / <sub>8</sub> " ought to be by theory		460 revolutions in 1 mile
		N <sup>o</sup> 1		
		Right wheel	12' 1 <sup>3</sup> / <sub>4</sub> "	435 " " "
		Left wheel	12' 1 <sup>3</sup> / <sub>4</sub> "	
		Spring wagon N <sup>o</sup> 1		
			14' 4"	369 " " "
		" "	N <sup>o</sup> 2	
			14' 4"	

Station: *Camp I. Magy creek camp.*

17 1/4

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
	<i>Carlisle</i>	1	0.11	S 87° W	N 75 3/4 W	0.10
		2	1.55	N 22 W	N 4 3/4 W	1.37
		3	0.91	N 5 E	N 22 1/4 E	0.87
		4	0.34	N 41 1/2 E	N 58 3/4 E	0.33
		5	0.95	N 26 1/2 W	N 9 1/4 W	0.92
		6	2.34	N 58 1/2 W	N 41 1/4 W	2.30
		7	4.86	N 74 W	N 58 3/4 W	4.66
		8	2.04	N 16 1/2 W	N 0 3/4 E	1.90
		9	3.44	N 12 E	N 29 1/4 E	3.30
		10	1.02	N 5 E	N 22 1/4 E	1.00
		11	1.57	N 16 W	N 1 1/4 E	1.50
		12	1.19	N 73 W	N 4 1/4 E	1.10
		13	1.09	N 1 W	N 16 1/4 E	1.05
	<i>Camp I</i>		0.36	N 2 3/4 W	N 14 1/2 E	0.34
			21.77			

*Magy Creek*  
*I Camp at Carlisle is 17.067 miles*

Computer: J. W. Lamele

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
0.025			0.097	
1.366			0.114	
0.805		0.330		
0.171		0.282		
0.908		<del>0.148</del>	0.148	
1.730			1.517	
2.417			3.984	
1.900		0.025		
2.899		1.613		
0.926		0.379		
1.500		0.033		
1.100		0.081		
1.008		0.294		
0.330		0.087	0	
<hr/> 17.067		<hr/> 3.124	<hr/> 5.860	
			3.124	
			<hr/> 2.736	

Astronomical Dist to Camp N 56 3/4 W (true bearing) 0.400  
 Northing 0.219 — 0° 0' 11"  
 Westing 0.334 — 0° 0' 23"

C.  
 North and 2.736 West of Cabin  
 N 9° 17' W  
 5.26° 22' E

about 17 miles distance in straight line

Station: *Camp on Divide* *Camp II*

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
	I	1	0.75	N 12 W	N 5 1/4 E	0.74
		2	1.23	N 11 W	N 6 1/4 E	1.20
		3	1.21	N 02 W	N 15 1/4 E	1.17
		4	1.73	N 22 E <del>N 67 W</del>	N 39 1/4 E	1.65
		5	0.62	N 62 E	N 79 1/4 E	0.60
		6	0.14	N 57 E	N 74 1/4 E	0.13
		7	1.33	N 16 W	N 1 1/4 E	1.24
		8	2.50	N 03 W	N 14 1/4 E	2.30
		9	1.67	N 1 1/2 E	N 18 3/4 E	1.60
		10	1.02	N 13 1/4 W	N 4 E	0.95
		11	1.00	N 5 E	N 22 1/4 E	0.94
		12	0.97	N 03 W	N 14 1/4 E	0.90
		13	0.97	N 38 W	N 20 3/4 W	0.91
		14	1.19	N 26 W	N 8 3/4 W	1.15
		15	0.12	N 70 E	N 24 1/4 E	0.11
		16	1.49	N 80 W	N 9 1/4 E	1.40
		17	0.82	North	N 17 1/4 E	0.78
		18	0.70	N 45 W	N 27 3/4 W	0.67
		19	0.98	N 13 W	N 4 1/4 E	0.90
		20	0.52	N 60 E	N 23 1/4 E	0.48
		21	0.36	N 89 E	S 73 3/4 E	0.34
		22	0.65	N 42 E	N 59 1/4 E	0.61
			0.77	N 10 W	N 7 1/4 E	0.74
			<u>22.74</u>			
			<i>Camp II</i>			
			<i>Divide Camp</i>			

Computer: *P. Gilbert*

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
0.787		0.068		<i>Common Woods</i> <i>Total Northing</i> <i>19.270</i> <i>Total Easting</i> <i>4.904</i> <i>of Camp</i> <i>on Mary Creek</i>
1.193	1.930	0.131	0.199	
1.129	3.059	0.308	0.507	
1.277	4.336	1.040	0.547	
0.109	4.445	0.590	2.137	
0.035	4.480	0.125	2.262	
1.240	5.720	0.027	2.289	
2.229	7.949	0.566	2.855	
1.515	9.464	0.514	3.369	
0.948	10.412	0.066	3.435	
0.870	11.282	0.356	3.791	
0.872	12.154	0.221	4.012	
0.851	13.005		0.322 3.690	
1.136	14.141		0.175 3.515	
0.100	14.241	0.045	3.560	
1.382	15.623	0.225	3.785	
0.745	16.368	0.231	4.016	
0.593	16.961		0.312 3.704	
0.917	17.878	0.068	3.772	
0.441	18.319	0.189	3.961	
	0.095 18.229	0.326	4.287	
0.312	18.536	0.524	4.811	
0.734	19.270	0.093	4.904	
19.365	0.095	5.713	0.809	



Station: *Camp Branchhouse Cottage Camp (Camp III)*

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
	<i>Camp II</i>					
		<i>Divide Camp</i> 1	0.73	N 48 W	N 30 3/4 W	0.70
		2	0.59	N 77 W	N 59 3/4 W	0.55
		3	0.42	N 68 W	N 50 3/4 W	0.38
		4	1.32	N 17 W	N 1/4 E	1.25
		5	0.80	N 63 W	N 45 3/4 W	0.76
		6	0.22	N 73 W	N 55 3/4 W	0.21
		7	0.31	S 83 W	N 79 3/4 W	0.30
		8	0.39	N 63 W	N 45 3/4 W	0.36
		9	1.43	N 30 W	N 12 3/4 W	1.35
		10	1.84	N 15 W	N 2 1/4 E	1.75
	<i>Cottage Camp</i>	11	4.15	N 13 W	N 4 1/4 E	4.10
			12.20			

Computer: *P. W. Hamel*

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
0.602			0.358	Camp near divide
0.277	0.279		0.475	0.833
0.240	1.119		0.294	1.127
1.250	2.367	0.005	0.005	
0.530	2.399		0.544	1.670
0.118	3.017		0.174	1.845
0.053	3.070		0.295	2.140
0.251	3.321		0.258	2.40
1.316	4.637		0.298	2.70
1.749	6.386	0.070		
4.089	10.475	0.303		
10.475		0.378	2.696	
			0.378	
			<u>2.318</u>	

Station: *Camp TV Bullman Camp.*

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
<i>Indep. water</i>	<i>White Wood Ct Bullman</i>	1	1.57	N 9½ W	N 7½ E	1.50
		2	4.26	N 20 W	N 3° W	4.20
		3	2.00	N 15½ W	N 1½ E	2.90
		4	1.16	N 36 W	N 19 W	1.10
		5	1.62	N 37 W	N 20 W	1.50
		6	0.55	N 85 W	N 68 W	0.55
		7	2.59	{ N 45 W N 53 W	{ N 28 W N 36 W	{ 1.20 1.30
		8	0.85	N 10½ W	N 6½ E	0.80
		9	1.40	{ S 70 W S 30 W	{ S 87 W S 47 W	{ 0.70 0.60
		10	1.18	S 48 W	S 65 W	1.15
		11	0.88	S 68° W	S 85° W	0.80
		12	0.76	N 18 W	N 1° W	0.75
		13	0.46	N 58 W	N 41 W	0.45
		14	2.72	N 30 W	N 13 W	2.60
		15	2.40	N 22 W	N 5 W	2.30
		16	1.29	N 8 E	N 25 E	1.20
		17	4.71	N 8 E	N 25 E	4.50
		18	0.37	N 85 E	N	0.37
		19	30.77		S 78 E	
		20				

*Bullman Camp TV*

Computer: P. W. Hainel.

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
0.991		0.131		
0.495	1486	0.065		
3.995			0.209	
0.200	5.681		0.010	0.02
1.000		0.026		
0.900	7.581	0.024		-0.02
0.946			0.326	+0.339
0.095	8.622		0.033	
0.940			0.342	
0.470	10.032		0.171	0.852
0.187			0.464	
0.19	10.232		0.046	1.360
1.060			0.500	
0.809	12.107		0.588	2.382
0.273			0.176	2.564
0.795	13.175	0.091		
	0.037		0.699	13.146
	0.409		0.439	0.440
	0.423		0.906	12.729
	0.042		0.091	0.465
	0.021		0.045	12.254
	0.070		0.797	4.000
			0.012	5.51
0.750	13.24		0.262	5.81
0.302	13.57		0.033	6.39
0.038			0.450	
1.949	16.00		0.135	
0.584			0.174	
1.992			0.026	
0.299	18.20			
0.906		0.423		6.58
0.781	19.28	0.085		6.96
3.625		1.690		
0.453	23.06	0.211		
	0.083	0.391		
24.254	1.085	3.137	6.934	
1.085			3.137	
23.169			3.797	

Station: Independence Valley Camp to Quince Camp.

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
May 26	Independence Camping	1	1.28	S 20 W	S 37 1/2 W	1.20
		2	0.36	S 20 W	S 37 1/2 W	0.35
		3	1.18	S 15 E	S 2 1/2 W	1.10
		4	1.07	S 5° E	S 12 1/2 W	1.00
		5	0.86	S 8° E	S 9 1/2 W	0.80
		6	0.95	S 10° E	S 7 1/2 W	0.90
		7	1.06	S 70° E	S 52 1/2 E	0.96
		8	0.52	S 2° E	S 15 1/2 W	0.50
		9	1.11	} S 20° E S 57° E	S 2 1/2 E	0.50
					S 39 1/2 E	0.50
		10	0.62	S 52° E	S 34 1/2 E	0.56
		11	2.28	S 69° E	S 51 1/2 E	2.10
12	1.12	S 30 E	S 12 1/2 E	1.00		
	Camp	0.90	S 12 E	S 5 1/2 W	0.85	
	Quince Camp				12.32	
		13.31				

	North	West
From stat. 11	12.173	5.51
South	10.553	1.64
	1.622	3.87

in a straight line 4.3 dist

S E 22°

May 30

Computer: P. W. Hamel

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.	
0.952	0.952		0.431	0.731	Stat 11 of preceding line
1.230	0.238		0.183	4	Deepeneth crying
	0.040		0.030	0.944	
2.329	0.999		0.044		
	0.100		0.004	0.992	
3.305	0.976		0.216	1.208	
4.094	0.789		0.132	1.340	
4.986	0.892		0.118	1.458	
5.595	0.609	0.793		0.665	
6.077	0.482		0.134	0.799	
6.963	0.500	0.022		2. Several angles to be	
	0.386	0.318		0.87	more
	<del>0.386</del>			0.459	
	0.412	0.283		0.136	
7.424	0.049	0.040			
8.731	1.245	1.565		-1.252 - 1.452	
	0.062	0.078		-1.086 - 1.236	
9.707	0.976	0.216		-1.668	
	0.796	1	0.077	-0.939 - 1.536	
10.553	0.050		0.005		
	10.553	3.315	1.674		
	9103	43	34		
		1.674			
		1.641			

Summit, Snow Camp VI

Station: Camp near ~~Proctor's~~ Cratering Camp ~~III~~ <sup>VI</sup>

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.	
	CAMPS.	STATION.		MAGNETIC.	TRUE.		
May 28	Quartz Cratering	0a	1.22	S 30 E	S 12 1/2 E	1.20	
		1	0.38	S 47 E	S 29 1/2 E	0.36	
		2	1.21	S 20 1/2 E	S 3 E	1.20	
		3	3.11	South	S 47 1/2 W	3.00	
		4	1.84	S 30 W	S 47 1/2 W	1.70	
		5	1.28	S 34 W	S 51 1/2 W	1.20	
		6	0.90	S 9 W	S 26 1/2 W	0.85	
		6a	0.17	S 75 W	N 87 1/2 W	0.15	
		7	0.82	S 17 E	S 0 1/2 W	0.70	
		8	0.59	S 5 W	S 22 1/2 W	0.50	
		Tephrona	9	0.45	S 32 1/2 W	S 50 W	0.40
			10	0.92	S 6 1/2 E	S 11 W	0.85
			11	0.88	S 35 E	S 17 1/2 E	0.85
			12	0.99	S 45 E	S 27 1/2 E	0.90
			13	1.20	S 6 E	S 11 1/2 W	1.10
			13a	0.09	S 70 W	S 87 1/2 W	0.09
			14	2.93	S 63 W	S 80 1/2 W	2.70
			15	1.20	S 39 W	S 56 1/2 W	1.10
16	1.11		S 22 W	S 39 1/2 W	1.05		
17	1.36		S 12 W	S 29 1/2 W	1.30		
17a	0.12	S 10 W	S 27 1/2 W	0.10			
18	1.11	S 2 E	S 15 1/2 W	1.10			
Snow Camp	Summit	Colony VI	0.60	S 17 E	S 0 1/2 W	0.50	
		Arctic Cratering	24.48				

Computer: *P. W. Hamel*

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	0.976	0.216		
	0.195	0.043	0.0259	
1.171	0.261	0.148		
1.484	0.052	0.080	0.0337	
	0.999	0.052		
2.683	0.200	0.010	0.0379	
5.544	2.861	0.9	0.902	0.602
	0.676		0.737	
6.693	0.473		0.516	1.855
	0.623		0.783	
7.441	0.125		0.156	2.794
	0.716		0.357	
8.179	0.022		0.054	3.205
0.004			0.100	
0.002			0.050	3.355. <i>Furcanoro</i>
8.773	0.700		0.006	3.366
9.235	0.462		0.191	3.552
9.492	0.257		0.306	3.858 <i>In Town Furcanoro</i>
	0.785		0.153	
10.326	0.049		0.000	4.021
	0.763	2.480	0.247	
11.137	0.048	3.765	0.015	
11.935	0.798	3.350	0.476	<i>Camp at Summit</i>
	0.980		0.199	
13.013	0.098	3.569	0.020	<i>is</i>
13.017	0.004	3.059	0.090	17.76 to South
	0.330		1.973	and
13.463	0.116	6.322	0.690	8.70 to West
	0.552		0.834	of Camp at
14.070	0.055	7.239	0.083	<i>Quarters crossing</i>
	0.772		0.636	
14.821	0.039	7.907	0.032	
	0.870		0.492	
16.012	0.361	8.547	0.148	
16.105	0.089	8.593	0.046	
	0.964		0.267	
17.161	0.096	3.3.87	0.027	
17.661	0.500		0.004	
0.006	17.767	1.171	9.870	
	5.1.14	23	13.12	



Station: *Camp VII Rose Camp.*

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
<i>Snow Camp</i>	<i>Snow Camp</i>		<i>Time</i> <i>7<sup>h</sup> 15 miles</i>			
<i>Camp VI</i>		1.	20 1.09	S 20 W	S 37 1/2 W	1.00
		2.	22 1.20	S 20 W	S 37 1/2 W	1.10
		3.	14 0.77	South	S 17 1/2 W	0.70
		4.	24 1.34	S 10 E	S 7 1/2 W	1.30
		5.	32 1.75	South	S 17 1/2 W	1.60
		6.	28 1.53	S 60 E	S 42 1/2 E	1.50
		7.	24 1.31	South	S 17 1/2 W	1.30
		8.	36 1.96	S 20 E	S 2 1/2 E	1.90
		9.	47 2.64	S 10 W	S 27 1/2 W	2.50
		10.	15 0.82	S 10 E	S 7 1/2 W	0.80
		11.	168 9.19	S 20 W	S 37 1/2 W	9.30
	<i>Camp VII Rose Camp</i>	12.	42 5.03	S 20 W	S 37 1/2 W	5.80

*or 28.60*

*Camp at Rock Creek is  
and*

Computer: P. W. Howell

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	0.793		0.609	We had snow storm
1.665	0.872		0.670	this morning
2.333	0.663		0.211	Therefore took bearing
	0.991		0.131	by pocket compass
3.617	0.297	1.660	0.039	and divided the
	0.954		0.301	
5.143	0.572	2.147	0.186	Odometer measurement
	0.437	0.676 <sup>147</sup>		
6.248	0.368	0.338 <sup>1133</sup>		by watch time
	0.954		0.301	
7.488	0.286		0.090	March 7 <sup>th</sup> 28
	0.999	0.044		28.65 miles
9.386	0.899	0.039 <sup>1050</sup>		Arrived A <sup>N</sup> 10
	1.774		0.923 <sup>2598</sup>	
16.503	0.443		0.231	min = 0.0547 miles
12.296	0.793		0.104	2.699
	6.347		4.870	
19.278	0.635		0.487	8.076
	3.967		3.044	
23.280	0.635		0.487	15.77
	23.984	1.097	12.684	
	<sub>13 15 10</sub>		1.097	
			11.587	

23.98 miles to the South  
 11.59 miles to the West  
 of Camp on Summit.

Station: Camp VIII Battle Mountain (Astron. camp 17<sup>1/2</sup> and 2 Party)

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
		1	0.41	S 14 E	S 3 1/4 E	0.40
		2	5.32	S 25 3/4 W	S 43 W	5.10
		3	0.88	S 25 3/4 W	S 43 W	0.85
		4	2.67	S 25 W	S 42 1/4 W	2.60
		5	3.91	S 28 W	S 45 1/4 W	3.80
		6	1.13	S 28 W	S 45 1/4 W	1.10
		7	0.60	S 79 1/2 W	N 83 1/4 W	0.60
		8	2.94	S 45 W	S 62 1/4 W	2.80
		9	0.50	S 80 W	N 82 3/4 W	0.50
		10	0.84	S 43 W	S 60 1/4 W	0.80
		11	1.92	S 47 W	S 64 1/4 W	1.80
		12	1.50	S 43 1/4 W	S 60 1/2 W	1.50
		13	0.91	S 63 W	S 80 1/2 W	0.90
		14	0.10	S 78 W	N 84 3/4 W	0.10
		15	0.20	S 21 W	S 38 1/4 W	0.20
	Preparing Camp	16	0.61	S 15 W	S 32 1/4 W	0.60
	Astron. Station		0.80	S 71 W	S 88 1/4 W	0.80
			25.24			
			3			
	Camp VIII Camp on Humboldt river. Battle Mountain		2.11	N 25 W	N 7 3/4 W	2.00

Computer: P. W. Linnell

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	0.399	0.023		Astronomical Camp
	3.657		3.410	near Battenmountain
4.129	0.073	3.46	0.068	is 18.68 to West
	0.585		0.546	and 14.04 to South
4.751	0.037	4.04	0.034	of
	1.480		1.345	Camp at Poses
6.775	0.444	5.79	0.403	Ranch
	2.112		2.131	
9.450	0.563	3.49	0.568	Camp of 2 <sup>nd</sup> Party
	0.704		0.704	near Battenmountain
10.224	0.070	9.26	0.070	is 18.95 to West
		9.86		
0.071	10.15	11.63	0.596	and 12.06 to South
	0.931	12.96	1.770	of
11.45	0.372	14.11	0.708	Camp on Poses
		12.80		Ranch
0.063	11.39	14.61	0.496	
		15.56		
11.79	0.397	15.21	0.695	
	0.4314	15.13	0.901	
12.57	0.347	16.93	0.721	Between 11 & 12 Odometer
	0.492	16.43	0.870	Book shows a distance
13.31	0.246	18.23	0.435	run by mistaking the place
		17.32		of starting very near
13.46	0.152	19.12	0.887	back to our station
		17.42		"
0.009		19.22	0.100	
	0.157	13.62	0.124	
	0.507	14.13	0.320	
	0.024	14.15	0.800	
		17.60		
		19.66		
		18.66		
		20.46		
0.143	14.183		18.702	
	<del>0.849</del>		<del>0.023</del>	
	14.040		18.679	
1.982	1.98		0.270	
	12.058			

Station: *Camp IX Galena Camp*

*Dec 17<sup>o</sup>*

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
			4.65			
	0a		<del>1.41</del>	S <sup>14</sup> <del>14</del> W	S 31W	4.60
	1		0.12	S 60W	S 77W	0.10
	2		1.60	S 65W	S 82W	1.60
	3		0.93	S 30W	S 47W	0.90
	4		3.33	S 37W	S 54W	3.30
	5		0.56	N 86W	N 69W	0.56
	6		0.81	N 51W	N 34W	0.81
	7.		0.26	N 68W	N 51W	0.26
	<i>Camp IX</i>		0.47	S 86W	N 77W	0.47
	<i>Galena Camp.</i>					
			12.73			12.60

Computer: *P. W. Hannel & Klett*

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	3.943		2.370	
	0.023	3.966	0.000	2.470
	0.223	4.189	1.584	4.054
	0.614	4.80	0.658	4.702
	1.940	6.74	2.670	7.372
0.201	6.54		0.523	7.895
0.671	5.87		0.453	8.348
0.164	5.71		0.202	8.550
0.106	5.28		0.458	8.734
1.469	6.743		2.744	
1.142	1.442		42	
	5.274			
	5.601		9.008	

Station: Camp X Mill Creek

17 1/4

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
	Galema			S 69 W	S 86 1/4 W	0.70
	Camp		0.43			
	1		0.61	S 04 E	S 13 1/4 W	0.58
	2		0.94	S 08 E	S 11 1/4 W	0.90
	3		1.72	S 26 E	S 8 3/4 E	1.60
	4		3.24	S 30 E	S 12 3/4 E	3.10
	5		3.09	S 31 1/2 E	S 14 1/4 E	3.00
	6		7.05	S 65 E	S 47 3/4 E	6.85
	Camp X		0.51	S 60 E	S 42 3/4 E	0.50
			17.89			

Computer: P. W. Hamel & Hlett

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	0,046		0,698	
0,611	0,565	+ 0,231	+ 0,133	
1,494	0,883	+ 1,007	+ 0,176	
2,075	1,581	0,243	+ 0,764	
5,099	3,024	0,684	+ 0,080	
9,009	2,910	0,740	- 0,680	
12,648	4,639	5,107	- 5,787	
14,015	0,367	0,339	- 6,126	
	14,015	7,113	1,007	
		1,007		
		6,106		



Station: Camp Hot Springs

17 1/2

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
				N		
	Camp near Mill Creek	0 <sup>a</sup>	0.51	<del>S</del> 60° W	N 42 1/2° W	0.50
		0 <sup>b</sup>	0.43	N 77° W	N 59 1/2° W	0.41
		1	3.24	<del>S 11° W</del>	S 28 1/2° W	3.20
		2	1.05	S 19° W	S 36 1/2° W	1.00
		3	0.38	S 46° W	S 63 1/2° W	0.38
		4	1.86	S 4° E	S 13 1/2° W	1.80
		4 <sup>a</sup>	2.72	S 13° E	S 4 1/2° W	2.70
		5	0.50	S 34° E	S 16 1/2° E	0.50
	Camp XI	6	4.14	S 4° E	S 13 1/2° W	4.10
			14.87			

Computer: P. W. Lammel & Klett

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
- 0,369			0,338	+ 0,338
- 0,208	0,577 2,522		0,353	+ 0,691
+ 2,400	2,819	+ 1,173	1,527	0,64 S. 3,14 W In plotting for section this bearing
3,777	0,800	+ 3,200 + 0,108	0,590	
3,947	0,170	+ 3,390 0,448	0,340	
5,697	1,750	+ 5,120 0,868	0,420	
8,389	2,692	+ 7,812 1,080	0,212	
8,868	0,479	+ 8,291 0,142 0,938		
12,855	3,987	+ 12,278	0,957	3,203 1,895
0,577	12,697	0,142	4,737	
	0,577		0,142	
	12,212,00		4,595	

Station: *Camp VII Reese river cañon*

*17 1/4*

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
			<i>1</i>			
		<i>1</i>	<i>4.16</i>	<i>S 50° W</i>	<i>S 22 1/4° W</i>	<i>4.00</i>
		<i>2</i>	<i>2.91</i>	<i>S 21° W</i>	<i>S 38 1/4° W</i>	<i>2.80</i>
		<i>3</i>	<i>3.63</i>	<i>S 70° W</i>	<i>S 24 1/4° W</i>	<i>3.60</i>
		<i>4</i>	<i>1.60</i>	<i>S 20° E</i>	<i>S 15 1/4° W</i>	<i>1.60</i>
		<i>5</i>	<i>0.96</i>	<i>S 13° E</i>	<i>S 4 1/4° W</i>	<i>0.95</i>
		<i>6</i>	<i>1.59</i>	<i>S 43° E</i>	<i>S 25 3/4° E</i>	<i>1.50</i>
		<i>7</i>	<i>1.75</i>	<i>S 64° E</i>	<i>S 46 3/4° E</i>	<i>1.70</i>
		<i>8</i>	<i>0.84</i>	<i>S 22 1/2° E</i>	<i>S 5 1/4° E</i>	<i>0.80</i>
		<i>9</i>	<i>0.85</i>	<i>S 73 1/2° E</i>	<i>S 56 1/4° E</i>	<i>0.83</i>
		<i>10</i>	<i>0.36</i>	<i>S 50° E</i>	<i>S 32 3/4° E</i>	<i>0.35</i>
<i>Reese river cañon</i>		<i>Camp VII</i>	<i>0.08</i>	<i>S 20° W</i>	<i>S 19 1/4° W</i>	<i>0.08</i>
			<i>18.73</i>			

Computer: P. W. Hainel & Klett

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	3.700		1.510	
5,899	2.199		1.733	3,243
9,181	3.282		1.479	4,722
10,925	1.544		0.421	5,143
11,472	0.947		0.070	5,213
13,023	1.357	0.652	+ 4,561	
14,788	1.165	1.238	+ 3,323	
14,935	0.497	0.073	+ 3,250	
15,446	0.461	0.690	+ 2,560	
15,790	0.294	0.189	+ 2,371	
15,815	0.076		0.026	+ 2,397
	15.816	2.842	5.239	
			2.842	
			<hr/> 2.397	

to Austin.

Station: *Camp XIII* near Mitchels Ranch

17°

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
		1	0.95	S 22 E	S 5 E	0.90
		2	0.35	S 19 1/2 W	S 36 1/2 W	0.33
		3	0.76	S 58 E	S 41 E	0.75
		3a	0.12	N 85 E	S 78 E	0.12
		4	0.64	S 37 E	S 20 E	0.63
		5	0.48	<del>S 85 E</del> S 95 E	S 68 E	0.45
		6	1.79	S 51 E	S 34 E	1.70
		7	1.06	S 26 E	S 9 E	1.00
		8	1.58	S 31 E	S 14 E	1.50
		9	1.34	S 22 E	S 5 E	1.30
		10	2.22	S 23 E	S 6 E	2.10
		10a	0.30	S 46 E	S 29 E	0.30
		11	1.86	S 18 W	S 35 W	1.70
		12	1.18	S 26 W	S 43 W	1.10
		13	1.81	S 24 W	S 41 W	1.80
		14	1.98	S 25 W	S 42 W	1.90
		15	2.13	S 16 W	S 33 W	2.00
		16	2.25	S 15 E	S 2 W	2.20
		17	1.63	S 25 E	S 8 E	1.60
		<i>Camp XIII</i>	2.05	S 17 E	South.	2.00
			26.48			
			22			

Computer: P. W. Hamel & Klett

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	0,897	0,078		
1,162	0,265		0,196	+ 0,118
1,728	0,566	0,492	- 0,374	
1,977	0,249	0,717	- 0,491	
2,569	0,592	0,215	- 0,706	
2,738	0,169	0,417	- 1,123	
4,147	1,409	0,951	- 2,074	
5,137	0,990	0,160	- 2,234	
6,592	7,455	0,363	- 2,597	
7,887	1,295	0,113	- 2,710	
9,975	2,088	0,220	- 2,930	
10,237	0,262	0,145	- 3,075	
11,630	1,393		0,975	- 2,100
12,434	0,804		0,750	- 1,350
13,792	1,358		1,181	+ 0,169
15,204	1,412		1,271	+ 1,102
16,884	1,680		1,090	+ 2,192
19,083	2,199		0,077	+ 2,269
20,667	1,584	0,223		+ 2,046
22,667	2,000			
	22,667	3,494	5,540	
			3,494	
			2,046	

Observed near Brickyard

azimuth  $\frac{15^{\circ}10' - 1^{\circ}47'}{16^{\circ}57'}$

Station: *Camp XIV - Summit Brickyard*

$17\frac{1}{2}$

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
		1	0.13	S 39W	S 56 $\frac{1}{4}$ W	0.13
		2	1.44	S 41E	S 23 $\frac{3}{4}$ E	1.40
		2a	1.44	S 79E	S 67 $\frac{3}{4}$ E	1.40
		3	1.21	S 49E	S 31 $\frac{3}{4}$ E	1.20
		3a	0.12	S 70E	S 52 $\frac{3}{4}$ E	0.12
		4	0.36	N 27E	N 44 $\frac{1}{4}$ E	0.34
		5	0.91	S 50E	S 32 $\frac{3}{4}$ E	0.85
		6	2.07	S 39E	S 21 $\frac{3}{4}$ E	2.00
		7	2.18	S 64E	S 46 $\frac{3}{4}$ E	2.10
		8	1.26	S 66E	S 48 $\frac{3}{4}$ E	1.20
		9	1.01	S 45E	S 27 $\frac{3}{4}$ E	1.01
		10	1.07	S 32E	S 14 $\frac{3}{4}$ E	1.00
		11	0.98	S 80E	S 62 $\frac{3}{4}$ E	0.98
		12	0.83	S 80E	S 62 $\frac{3}{4}$ E	0.83
	Camp XIV	13	0.42	N 15E	N 32 $\frac{1}{4}$ E	0.42
			15.43			

Computer: P. W. H. de Blott

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	0.072		-0.108	
1,353	1.281	0.564	0.456	
2,016	0.663	1.233	1.689	
3,036	1.020	0.631	2,320	
3,109	0.073	0.095	2,415	
0,243	2,866	0.237	2,652	
3,581	0.715	0.460	3,112	
5,441	1.860	0.740	3,852	
6,880	1.439	1.530	5,382	
7,471	0.791	0.902	6,284	
8,557	0.880	0.470	6,754	Town
9,521	0.970	0.250	7,004	
9,970	0.449	0.871	7,875	West 7.004 East 7.004 South 9.970
10,250	0.380	0.738	8,613	
0.355	9.995	0.224	8,837	
0.598	10.593	8.945	0.108	
	0.598	0.663	0.108	
	9.995	8.837		



Observed bearing

15° 03  
1° 47  
16° 50

Bear Creek

Station: Camp XV Pleasant Camp

Mar. 17

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
			0.42	South	S 17 W	0.42
1			0.36	S 82 E	S 65 E	0.34
2			0.85	N 72 E	S 81 E	0.82
3			0.58	S 67 1/2 E	S 50 1/2 E	0.52
4			1.18	S 38 E	S 21 E	1.10
5			0.63	S 62 E	S 45 E	0.60
6			0.88	S 48 E	S 31 E	0.85
7			1.18	S 62 E	S 45 E	1.10
7a			0.41	S 27 E	S 10 E	0.40
8			0.41	S 37 E	S 20 E	0.39
8a			0.24	S 75 E	S 58 E	0.23
9			0.25	S 85 E	S 68 E	0.24
9a			0.38	S 49 E	S 32 E	0.36
10			0.38	S 36 E	S 19 E	0.36
10a	0.37		0.37	S 43 E	S 26 E	0.36
11			3.92	S 7 W	S 24 W	3.70
Camp.			3.33	S 74 W	N 89 W	3.20
			15.77			

Computer:

P. W. L. & M. L. L.

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	0,402		-0,123	
0.646	0,144	0,308		0.235
0.674	0,128	0,809		0.994
1.004	0,330	0,401		1.395
2.031	1,027	0,394		1.789
2.455	0,424	0,424		2.213
3.184	0,729	0,438		2.651
3.962	0,778	0,778		3.429
4.356	0,394	0,069		3.498
4.722	0,366	0,133		3.631
4.844	0,122	0,195		3.826
4.934	0,090	0,222		4.048
5.239	0,305	0,191		4.239
5.579	0,340	0,117		4.356
5.902	0,323	0,158		4.514
9.232	3,380		1,505	8.009
0.056			3,200	3.753 - 0.791
	9,282	4,637	4.828	
	0.056		4.637	
	<u>9.226</u>	<u>4.955</u>	<u>0.191</u>	

Station: *Camp XVI. Basin Camp.*

16.3/4<sup>0</sup>

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
		1	0.27	S 4 1/4 E	S 27 1/4 E	0.26
		2	1.14	S 35 E	S 18 1/4 E	1.10
		3	1.53	S 57 E	S 40 1/4 E	1.50
		4	2.01	S 22 E	S 5 1/4 E	2.00
		5	1.40	S 2 W	S 18 3/4 W	1.40
		5a	2.12	S 8 W	S 24 3/4 W	2.00
		6	1.00	S 14 W	S 30 3/4 W	1.00
		7	1.20	S 20 1/2 W	S 37 1/4 W	1.20
		8	0.92	S 33 W	S 49 3/4 W	0.90
		8a	0.43	S 66 W	S 82 3/4 W	0.42
		IX	0.43	S 60 W	S 76 3/4 W	0.42
		X	1.31	S 77 E	S 60 1/4 E	1.25
		10a	0.32	S 30 E	S 13 1/4 E	0.31
		11	0.96	S 44 E	S 27 1/4 E	0.93
		12	0.31	S 34 E	S 17 1/4 E	0.30
		12a	0.85	S 3 E	S 13 3/4 W	0.84
		13	0.86	S 8 W	S 24 3/4 W	0.85
		14 <sup>v</sup>	4.54	S 57 W	S 62 3/4 W	4.30
		15	1.70	S 56 E	S 39 1/4 E	1.65
		Camp	3.03	S 26 W	S 42 3/4 W	2.90
			26.33			

Computer: P. W. Hamel & Scott

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	0,231	0,119		
1,276	1,045	0,324	0,463	
2,421	1,145	0,969	1,422	
4,411	1,990	0,180	5,602	
5,737	1,326		0,450	-1,852-
7,557	1,820		0,840	+0,312
8,417	0,860		0,570	+0,198
9,372	0,955		0,726	+0,224
9,953	0,581		0,687	+1,641
10,006	0,053		0,417	+2,028
10,102	0,096		0,409	+2,437
10,727	0,625	1,088		+1,349
11,029	0,302	0,071		+1,278
11,856	0,827	0,426		+0,852
12,142	0,286	0,089		+0,763
12,985	0,816	0,429	0,199	+0,962
13,730	0,772	0,350	0,356	1,318
15,699	1,969		3,828	5,141 <sup>2</sup> <sub>3/8</sub> <i>to my station</i>
16,972	1,273	1,041		4,000
19,102	2,130		1,969	5,969
	19,1023	4,327	10,296	
			4,327	
			5,969	

Station: *Camp XVII Camp Ophir*

$16\frac{3}{4}^{\circ}$

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
		1	0.22	S 23 W	S 39 $\frac{3}{4}$ W	0.22
		2	1.05	S 40 $\frac{1}{2}$ E	S 23 $\frac{3}{4}$ E	1.00
		3	1.65	S 2 W	S 18 $\frac{3}{4}$ W	1.65
		4	1.64	S 5 $\frac{1}{2}$ W	S 22 $\frac{1}{4}$ W	1.60
		5	1.36	S 5 W	S 21 $\frac{3}{4}$ W	1.30
		6	1.46	S 18 E	S 1 $\frac{1}{4}$ E	1.40
		7	0.65	S 19 E	S 2 $\frac{1}{4}$ E	0.62
		8	2.05	S 42 W	S 58 $\frac{3}{4}$ W	2.00
		9	1.62	S 46 W	S 62 $\frac{3}{4}$ W	1.50
		10	0.65	West	N 73 $\frac{1}{4}$ W	0.60
		11	0.98	West	N 73 $\frac{1}{2}$ W	0.90
		Camp	0.98	S 87 W	N 76 $\frac{1}{4}$ W	0.90

14.31

Computer: P. W. L. & Platt

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	0.169		0.141	+ 0.141
1.089	0.920	0.400		- 0.259
2.651	0.515		0.514	+ 0.255
	0.047		0.016	+ 0.271
4.132	1.481		0.606	+ 0.877
5.339	1.207		0.482	1.359
6.739	1.400	0.031		1.328
7.358	0.619	0.024		1.304
8.398	1.040		1.710	3.014
9.085	0.687		1.334	4.348
0.173	8.912		0.575	4.923
0.259	8.653		0.862	5.785
0.214	8.439		0.874	6.659
0.646	9.085	0.455	7.114	
	0.646		0.455	
	8.439		6.659	

Station: *Camp XVIII Jefferson Creek Camp. 16<sup>3</sup>/<sub>4</sub>*

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
			0.10	S 30° E	S 13 <sup>3</sup> / <sub>4</sub> E	0.10
		0 <sup>a</sup>	0.35	S 30° E	S 13 <sup>3</sup> / <sub>4</sub> E	0.34
		1	2.98	S 50° E	S 33 <sup>3</sup> / <sub>4</sub> E	2.80
		2	1.64	S 61 <sup>1</sup> / <sub>2</sub> E	S 44 <sup>3</sup> / <sub>4</sub> E	1.60
		2 <sup>a</sup>	0.67	S 25 E	S 8 <sup>1</sup> / <sub>4</sub> E	0.65
		3	0.68	S 27 E	S 10 <sup>1</sup> / <sub>4</sub> E	0.65
		4	1.39	S 38 E	S 21 <sup>1</sup> / <sub>4</sub> E	1.30
		5	1.61	S 12 E	S 4 <sup>3</sup> / <sub>4</sub> W	1.50
		6	1.45	S 76 E	S 59 <sup>1</sup> / <sub>4</sub> E	1.40
		7	1.58	S 76 E	S 59 <sup>1</sup> / <sub>4</sub> E	1.50
		8	0.77	S 33 E	S 16 <sup>1</sup> / <sub>4</sub> E	0.77
		9	3.00	S 65 E	S 48 <sup>1</sup> / <sub>4</sub> E	2.90
		10	2.50	S 63 E	S 46 <sup>1</sup> / <sub>4</sub> E	2.40
		11	1.36	S 83 E	S 66 <sup>1</sup> / <sub>4</sub> E	1.30
		12	2.08	S 87 E	S 70 <sup>1</sup> / <sub>4</sub> E	1.90
		13	0.77	N 70 E	N 86 <sup>3</sup> / <sub>4</sub> E	0.70
		14	0.34	N 63 E	N 79 <sup>1</sup> / <sub>4</sub> E	0.33
		Camp	0.12	N 85 E	S 78 <sup>1</sup> / <sub>4</sub> E	0.12
			23.39			
			<u>2.61</u>			
			26.00			

Computer: P. W. L. & Klett

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	0.0917	0.023		This course is between corners between Stat 9 of day before and Stat 0 <sup>a</sup>
0,428	0.331	0.078	0, 101	
2,770	2.342	1.535	1, 636	
3,906	1.136	1.126	2, 762	
4,549	0.643	0.093	2, 855	
5,189	0.640	0.116	2, 971	
6,401	1.212	0.471	3, 442	
7,896	1.495	3.318	0.124	
8,612	0.716	1.203	4, 521	
9,379	0.767	1.289	5, 810	
10,118	0.739	0.216	6, 026	
12,049	1.931	2.164	8, 190	
13,709	1.660	1.734	9, 924	
14,233	0.524	1.190	11, 114	
14,875	0.642	1.788	12, 902	
0.040	14, 835	0.699	13, 801	
0.059	14, 776	0.325	13, 926	
14, 800	0.024	0.118	14, 644	
0.099	14.899	14.168	0.124	To our days march ought to be added 2.61 as the length of way down the canon not mentioned on this page. Southing 0.646 Easting 2.311
	0.099	0.124 <sup>533</sup>		
	14.800	14.044		
	0.646	2.311		
	15.446	16.355		



Observed in Camp  $15^{\circ} 07'$   
 Azimuth  $- 10^{\circ} 45 \frac{3}{4}'$   
 $16^{\circ} 52 \frac{3}{4}'$

Station: *Camp XIX Meadow Creek Camp*  $16 \frac{1}{2}$

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
		<i>0a</i>	<i>0.41</i>	<i>N 85° E</i>	<i>S 78½ E</i>	<i>0.38</i>
		<i>1</i>	<i>0.42</i>	<i>S 37 E</i>	<i>S 20½ E</i>	<i>0.39</i>
		<i>2</i>	<i>0.38</i>	<i>S 60 E</i>	<i>S 43½ E</i>	<i>0.35</i>
		<i>3</i>	<i>0.28</i>	<i>N 73 E</i>	<i>N 89½ E</i>	<i>0.26</i>
		<i>4</i>	<i>0.36</i>	<i>S 66 E</i>	<i>S 49½ E</i>	<i>0.33</i>
		<i>5</i>	<i>0.44</i>	<i>S 63 E</i>	<i>S 46½ E</i>	<i>0.42</i>
		<i>6</i>	<i>0.44</i>	<i>S 72½ E</i>	<i>S 56 E</i>	<i>0.42</i>
		<i>7</i>	<i>0.33</i>	<i>S 64 E</i>	<i>S 47½ E</i>	<i>0.31</i>
		<i>8</i>	<i>0.58</i>	<i>S 55 E</i>	<i>S 38½ E</i>	<i>0.54</i>
		<i>9</i>	<i>0.25</i>	<i>S 86 E</i>	<i>S 69½ E</i>	<i>0.24</i>
		<i>10</i>	<i>0.83</i>	<i>N 60 E</i>	<i>N 76½ E</i>	<i>0.75</i>
		<i>Camp</i>	<i>0.58</i>	<i>N 46 E</i>	<i>N 62½ E</i>	<i>0.55</i>
			<i>5.30</i>			<i>4.94</i>

Computer: *P. W. Hamel*

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	0.076	0.372		
0.441	0.365	0.137	0.509	
0.695	0.254	0.241	0.750	
0.002	0.693	0.260	1.010	
0.907	0.214	0.251	1.261	
1.196	0.289	0.305	1.566	
1.431	0.235	0.348	1.914	
1.640	0.209	0.229	2.143	
2.063	0.423	0.336	2.479	
2.147	0.084	0.225	2.704	
0.175	1.972	0.729	3.433	
0.254	1.718	0.488	3.921	
0.431	2.149	3.921		
	<sup>44</sup> 0.431	<sup>56</sup>		
	1.718			

Side line

Station: Camp ~~XX~~ Pine Creek (Squiere's Ranch) 16<sup>3/4</sup>

Very rough Trail over foothills and a hill to the Road to Sawmill

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
		1	3.35	N 7° W	N 9 <sup>3/4</sup> E <del>N 25<sup>3/4</sup> W</del>	3.00
		2	1.92	N 32 E	N 48 <sup>3/4</sup> E	1.80
		3	0.92	N 30 E	N 46 <sup>3/4</sup> E	0.85
		4	2.38	N 43 E	N 59 <sup>3/4</sup> E	2.20
		Camp at Pine Creek	2.25	N 42 <sup>3/4</sup> E	N 59 <sup>1/4</sup> E	2.10
			10.82			

Computer: *J. W. Hamel*

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
2.96		0.51		
1.19	4.15	1.35	1.26	
0.58	4.73	0.62	2.43	
1.11	5.84	1.90	4.38	
1.09	6.91	1.81	6.19	
6.91		6.19		

Station: *Camp Green Springs*

16<sup>3/4</sup>

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
			<i>Magnetic</i>	<i>Odometer</i>		
		1	N 36 <sup>1/2</sup> W	4.50	N 19 <sup>3/4</sup> W	4.40
		2	N 55 W	0.67	N 38 <sup>1/4</sup> W	0.64
		3	S 68 W	0.65	S 84 <sup>3/4</sup> W	0.62
		3 <sup>a</sup>	N 67 W	<del>1.12</del> 0.35	N 50 <sup>1/4</sup> W	0.33
		4	N 38 W	0.77	N 21 <sup>1/4</sup> W	1.70
		5	N 52 W	0.67	N 35 <sup>1/4</sup> W	0.63
		5 <sup>a</sup>	S 54 W	0.28	S 70 <sup>3/4</sup> W	0.27
	<i>Summit</i>	6	N 87 W	0.28	N 70 <sup>1/4</sup> W	0.27
		7	S 76 W	0.55	N 87 <sup>1/4</sup> W	0.53
		8	N 82 W	1.80	N 65 <sup>1/4</sup> W	1.70
		9	S 70 W	<del>0.43</del> 1.05	S 86 <sup>3/4</sup> W	1.00
		10	S 81 W	0.57	N 82 <sup>1/4</sup> W	0.54
		11	N 87 W	0.48	N 70 <sup>1/4</sup> W	0.45
		11 <sup>a</sup>	S 60° W	0.40	S 76 <sup>3/4</sup> W	0.40
		12	N 75 W	0.42	N 58 <sup>1/4</sup> W	0.40
		13	N 85 W	0.72	N 68 <sup>1/4</sup> W	0.70
	<i>Mountain Station</i>	14	N 52 W	0.44	N 35 <sup>1/4</sup> W	0.43
		15	N 80 W	0.42	N 63 <sup>1/4</sup> W	0.36
	<i>Camp at Green Springs</i>		N 80 W	4.62	N 63 <sup>1/4</sup> W	4.50
				20.64		

Computer: *P. W. Hamel*

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
4.14			1.49	
0.50	4.64		0.40	1.89
	4.58	0.06	0.62	2.51
0.22	4.80		0.27	2.78
1.58	6.38		0.62	3.40
0.52	6.90		0.36	3.76
	6.81	0.09	0.25	4.01
0.09	6.90		0.25	4.26
0.03	6.93		0.53	4.79
0.71	7.64		1.54	6.33
	7.58	0.06	1.00	7.33
0.07	7.65		0.54	7.87
0.15	7.80		0.42	8.29
	7.71	0.09	0.39	8.68
0.21	7.92		0.34	9.02
0.26	8.18		0.65	9.67
0.35	8.53		0.25	9.92 Stage Station
0.16	8.69		0.32	10.24
2.02	10.71		4.02	14.26
11.01	0.30		14.26	
0.80				
10.71				

Station: *Camp Northumberland mine*

16 3/4

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
		0a	0.12	N 86° E	S 77 1/4 E	0.12
		1	2.41	N 26° E	N 42 3/4 E	2.30
		2	1.29	N 21 1/2 W	N 4 3/4 W	1.20
		3	1.39	N 22 W	N 5 1/4 W	1.30
		4	4.64	N 33 W	N 16 1/4 W	4.50
		5	0.68	N 52 E	N 68 3/4 E	0.67
		6	2.08	S 56 E	S 39 1/4 E	2.06
		7	6.31	S 73 1/4 E	S 56 1/2 E	6.00
		8	0.72	N 83 E	S 80 1/4 E	0.70
		9	0.64	S 60 E	S 43 1/4 E	0.62
		Camp near ruins of Huntington and Mill	1.04	S 72 E	S 55 1/4 E	1.00
			21.32			
			5			

Computer:

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	0.01	0.12		
1.69		1.56	1.68	Come into Stagers road
1.20	2.89		1.58 0.10	
1.29	4.18		1.46 0.12	
4.32	8.50		0.20 1.26	
0.24	2.74	0.62	0.82	
	0.05	0.04		
	7.14 1.55	1.27	2.13	
	3.83 3.31	5.00	7.12	
	3.77 0.12	0.69	7.82	
	3.26 0.45	0.42	8.24	
	2.69 0.57	0.82	9.06	
8.74	6.06	10.54	1.48	
6.06		1.48		
2.68		9.06		



Station:

Camp Pinecreek

16 3/4

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
		1	1.40	S 82 E	S 65 1/4 E	1.30
		2	0.66	S 44 E	S 27 1/4 E	0.65
		a	0.31 <sup>1/2</sup>	S 10 W	S 26 3/4 W	0.30
		b	0.15 <sup>1/4</sup>	S 67 E	S 50 1/4 E	0.14
		3	0.16 <sup>1/4</sup>	N 20 W	N 3 1/4 W	0.15
		a	0.09 <sup>3/4</sup>	N 80 E	S 83 1/4 E	0.09
		4	0.16 <sup>5/8</sup>	N 10 W	N 6 3/4 E	0.16
	Summit	5	0.28	S 77 E	S 60 1/4 E	0.27
		6	0.20	S 36 E	S 19 1/4 E	0.20
		7	1.44	S 37 E	S 20 1/4 E	1.40
		8	0.89	S 26 W	S 42 3/4 W	0.84
		9	0.80	S 13 E	S 3 3/4 W	0.78
		10	1.14	S 55 E	S 38 1/4 E	1.10
		11	2.81	S 80 E	S 63 1/4 E	2.60
		12	1.10	S 42 E	S 25 1/4 E	1.00
		13	1.40	S 3 E	S 13 3/4 W	1.40
		14	3.24	S 11 E	S 5 3/4 W	3.15
	Comp.		1.90		S 36 1/2 E	1.85
			18.13			
			6			

Computer: J. W. Linnell

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	0.54	1.18		
1.12	0.58	0.30	1.48	
1.39	0.27	0	1.35	0.13
1.48	0.09	0.11	1.46	
0.15			1.45	0.01
1.35	0.02	0.09	1.54	
0.16		0.02	1.50	
1.32	0.13	0.23	1.79	
1.51	0.19	0.07	1.86	
2.82	1.31	0.48	2.34	
3.44	0.62		1.77	0.57
4.22	0.78		1.72	0.05
5.02	0.86	0.68	2.40	
6.25	1.17	2.32	4.72	
7.15	0.90	0.43	5.15	
2.81	1.36		4.82	0.33
11.54	3.08		4.51	0.31
11.64	0.05			0.00
13.09	1.45	1.07	5.58	
13.73	0.04	0.03	5.61	
0.31	13.44	7.01	1.40	
	0.31	1.40		
	13.13	5.61		

Station: *Camp Meadow Creek*

1674

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
	1	1	1.93	S 44 E	S 27 1/4 E	1.90
		2	1.24	S 50 1/4 E	S 33 1/2 E	1.20
		3	0.54	S 26 E	S 9 1/4 E	0.53
		4	1.51	S 1 W	S 17 3/4 W	1.40
		5	1.02	S 6 E	S 10 3/4 W	1.00
		6	0.90	S 8 E	S 8 3/4 W	0.87
		7	1.43	S 8 W	S 24 3/4 W	1.35
		8	3.06	S 15 1/2 W	S 32 1/4 W	3.05
		9	1.53	N 88 W	N 71 1/4 W	1.45
		9a	0.58	N 57 W	N 40 1/4 W	0.55
		10	1.16	N 55 W	N 38 1/4 W	1.10
		10a	0.07	N 67 W	N 50 1/4 W	0.07
		11	1.07	N 68 W	N 51 1/4 W	1.10
		12	0.44	N 80 W	N 63 1/4 W	0.40
		12a	0.70	N 63 W	N 46 1/4 W	0.64
		13	0.70	N 46 W	N 29 1/4 W	0.64
		Camp at Honeydew Creek	0.60	N 35 W	N 18 1/4 W	0.58
			18.58			

Computer: *P. W. Samuel*

*101102*

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	1.69	0.87		
2.69	1.00	0.66	-0.53	
2.21	0.52	0.09	-1.62	
	<del>1.33</del>			
4.54	1.33		0.43	-1.19
5.52	0.98		0.19	-1.00
6.38	0.86		0.13	-0.87
6.97	0.05		0.02	
7.61	1.18		0.54	-0.31
	2.54		1.60	+ 1.32
10.19	0.04		0.03	
0.45	2.12		1.33	2.70
0.02			0.05	
0.42	2.90		0.36	3.06
0.86	6.22		0.68	3.72
0.04	2.40		0.05	3.77
0.69	7.71		0.86	4.65
0.18	7.53		0.36	5.01
0.44	7.09		0.46	5.47
0.56	6.53		0.31	5.72
0.55	5.98		0.18	5.73
4.21	10.19	1.62	7.58	
5	4.21		1.62	
	<u>5.98</u>		<u>5.96</u>	

Station: *Camp Silver Canyon*

16<sup>3</sup>/<sub>4</sub>

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
			<i>True bearing</i>			
	<i>Camp</i>					
		1	S 30 E	S 47 E	0.44	0.40
		2	S 46 <sup>3</sup> / <sub>4</sub> W	S 30 W	4.11	4.00
		3	S 49 E	S 65 E	3.61	3.30
		4	S 48 E	S 65 E	1.46	1.30
		5	S 43 E	S 59 <sup>1</sup> / <sub>2</sub> E	1.45	1.30
		6	S 20 <sup>1</sup> / <sub>4</sub> E	S 37 E	0.53	0.50
		7	S 3 <sup>1</sup> / <sub>4</sub> E	S 20 E	0.16	0.15
		7a	S 53 <sup>1</sup> / <sub>4</sub> E	S 70 E	0.23	0.20
		8	N 89 <sup>3</sup> / <sub>4</sub> E	N 73 E	0.23	0.22
		9	S 46 E	S 62 <sup>1</sup> / <sub>2</sub> E	0.42	0.40
		10	S 21 <sup>3</sup> / <sub>4</sub> W	S 5 W	0.17	0.15
		11	N 76 <sup>3</sup> / <sub>4</sub> E	N 60 E	0.15	0.15
		12	S 21 <sup>3</sup> / <sub>4</sub> W	S 5 W	0.25	0.24
		12a	S 38 <sup>1</sup> / <sub>4</sub> E	S 55 E	0.49	0.45
		13	S 35 <sup>1</sup> / <sub>4</sub> E	S 52 E	0.50	0.45
		14	S 48 <sup>1</sup> / <sub>4</sub> E	S 65 E	0.84	0.80
		15	S 74 <sup>1</sup> / <sub>4</sub> E	N 89 E	0.58	0.55
		15a	S 43 <sup>1</sup> / <sub>4</sub> E	S 60 E	0.48	0.45
		16	S 70 <sup>1</sup> / <sub>4</sub> E	S 87 E	0.48	0.45
		16a	S 63 <sup>1</sup> / <sub>4</sub> E	S 80 E	1.35	1.20
		17	S 62 <sup>1</sup> / <sub>4</sub> E	S 79 E	1.35	1.30

Computer: *P. W. Daniel*

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
<i>13.</i>				
	0.38	0.22		<i>2. to review</i>
3.14	2.74		2.91-2.69	
5.28	2.16	2.49	0.20	
6.15	0.87	0.97	1.17	
7.10	0.95	0.89	2.06	
7.57	0.47	0.17	2.23	
7.72	0.15	0.01	2.24	
7.84	0.12	0.16	2.40	
		0.22	2.62	
8.12	0.28	0.29	2.91	
8.19	0.06		0.14-2.77	
0.03 <sub>2</sub> 8.15		0.15-2.92		
8.37	0.22		0.09-2.83	
8.72	0.35	0.28 <sup>3.10 4.20 3.50</sup>		
9.09	0.37	0.26 <sup>3.37 2.25</sup>		
9.22	0.53	0.60 <sup>3.97</sup>		
9.77	0.15	0.53 <sup>4.50</sup>		
10.08	0.31	0.33 <sup>4.83</sup>		
10.23	0.15	0.42 <sup>5.25</sup>		
10.77	0.54	1.07 <sup>6.32</sup>		
11.33	0.61	1.15 <sup>7.47</sup>		
	11.41	10.21	3.14	
	0.03	3.14		
	11.38	7.07		

Station: *Camp Silver canyon*

*16 3/4*

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
		<i>18</i>	<i>0.47</i>	<i>S 30 E</i>	<i>S 13 1/4 E</i>	<i>0.47</i>
		<i>19</i>	<i>2.07</i>	<i>S 57 E</i>	<i>S 40 1/4 E</i>	<i>2.07</i>
		<i>20</i>	<i>2.63</i>	<i>S 6 E</i>	<i>S 10 3/4 W</i>	<i>2.63</i>
		<i>21</i>	<i>0.70</i>	<del><i>S 16 E</i></del>	<i>S 10 3/4 W</i>	<i>0.70</i>
		<i>22</i>	<i>3.26</i>	<i>S 20 E</i>	<i>S 3 1/4 E</i>	<i>3.26</i>
		<i>23</i>	<i>2.61</i>	<i>S 20 E</i>	<i>S 3 1/4 E</i>	<i>2.61</i>
		<i>24</i>	<i>3.26</i>	<i>S 21 E</i>	<i>S 4 1/4 E</i>	<i>3.26</i>
		<i>25</i>	<i>2.23</i>	<i>S 21 E</i>	<i>S 4 1/4 E</i>	<i>2.23</i>
		<i>Camp at Stone House (Martens' Creek?)</i>	<i>0.98</i>	<i>S 25 E</i>	<i>S 8 1/4 E</i>	<i>0.90</i>
			<i>6.50</i>			
			<i>37.49</i>			

Computer:

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	0.46	0.11		
	1.60 <sub>2.06</sub>	1.36 <sub>1.47</sub>		
	2.55 <sub>4.61</sub>		0.48 <sub>0.99</sub>	
	0.69 <sub>5.30</sub>		0.13 <sub>0.86</sub>	
	3.29 <sub>8.59</sub>	0.19 <sub>1.05</sub>		
	2.60 <sub>11.19</sub>	0.15 <sub>1.20</sub>		
	3.29 <sub>14.48</sub>	0.25 <sub>1.45</sub>		
	2.19 <sub>16.67</sub>	0.16 <sub>1.61</sub>		
	0.89 <sub>17.56</sub>	0.13 <sub>1.74</sub>		
<hr/>				
	17.56	2.35	0.61	
		<u>0.61</u>		
		1.74		
	<u>11.38</u>	7.07		
	28.94	8.81		



Station: *Camp Silvercanyon*

16 1/2

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
		1	1.43	East	S 73 1/2 E	1.30
		2	2.80	East	S 73 1/2 E	2.70
		3	2.13	East	S 73 1/2 E	2.00
		4	2.64	N 89 E	S 72 1/2 E	2.50
	9.00	5	1.40	N 84 E	S 67 1/2 E	1.30
		6	0.47	N 56 E	N 72 1/2 E	0.45
		7	0.22	N 38 E	N 54 1/2 E	0.20
		8	2.96	N 64 E	N 80 1/2 E	2.80
		9	0.40	N 88 E	S 75 1/2 E	0.40
		9a	0.20	N 51 E	N 67 1/2 E	0.20
		10	0.21	S 70 E	S 53 1/2 E	0.20
		11	0.77	S 50 E	S 33 1/2 E	0.74
		12	0.81	S 12 W	S 28 1/2 W	0.80
		13	1.86	S 47 E	S 30 1/2 E	1.70
		14	0.78	S 45 E	S 28 1/2 E	0.70
		15	1.08	S 15 E	S 1 1/2 W	1.00
		16	0.66	S 60 E	S 43 1/2 E	0.63
		17	1.00	S 60 E	S 43 1/2 E	1.00
		18	0.21	S 27 E	S 10 1/2 E	0.20
		19	0.22	S 60 E	S 43 1/2 E	0.20
		20	1.16	S 41 E	S 24 1/2 E	1.10

Computer:

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	0.37	1.25		
	0.77 <sup>1.14</sup>	2.59 <sup>3.84</sup>		
	0.57 <sup>1.41</sup>	1.92 <sup>5.76</sup>		
	0.75 <sup>2.46</sup>	2.38 <sup>8.14</sup>		
	0.50 <sup>2.76</sup>	1.20 <sup>9.34</sup>		
0.14 <sup>2.82</sup>		0.43 <sup>9.77</sup>		
0.12 <sup>2.26 2.70</sup>		0.16 <sup>9.93</sup>		
0.46 <sup>2.24 4.78</sup>		2.76 <sup>12.69</sup>		
	0.10 <sup>2.34 2.98</sup>	0.39 <sup>13.08</sup>		
0.08 <sup>2.26</sup>		0.18 <sup>13.26</sup>		
	0.12 <sup>2.38</sup>	0.16 <sup>13.42</sup>		
	0.62 <sup>3.00</sup>	0.41 <sup>13.83</sup>		
	0.70 <sup>3.70</sup>	13.45	0.38	Black openings
	1.46 <sup>5.16</sup>	0.86 <sup>14.31</sup>		
	0.61 <sup>5.77</sup>	0.33 <sup>14.64</sup>		
	1.00 <sup>6.77</sup>	14.61	0.03	2 560 E Tetry
	0.46 <sup>7.23</sup>	0.43 <sup>15.04</sup>		
	0.73 <sup>7.96</sup>	0.69 <sup>15.73</sup>		2 Tetry 515K
	0.20 <sup>8.16</sup>	0.04 <sup>15.77</sup>		
	0.14 <sup>8.30</sup>	0.14 <sup>15.91</sup>		
	1.00 <sup>9.20</sup>	0.46 <sup>16.37</sup>		
0.80	10.10	16.78	0.41	
	0.80	47		
	9.30	16.37		

Station:

16 <sup>3</sup>/<sub>4</sub>

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
		21	1.69	S 45 E	S 28 <sup>1</sup> / <sub>4</sub> E	1.60
		22	0.36	S 56 E	S 41 <sup>1</sup> / <sub>4</sub> E	0.35
		23	0.97	S 80 E	S 63 <sup>1</sup> / <sub>4</sub> E	0.94
		24	1.32	S 70 E	S 53 <sup>1</sup> / <sub>4</sub> E	1.20
		25	1.33	N 43 E	N 59 <sup>3</sup> / <sub>4</sub> E	1.20
		26	2.00	N 23 E	N 39 <sup>3</sup> / <sub>4</sub> E	2.00
		27	2.00	N 40 E	N 56 <sup>3</sup> / <sub>4</sub> E	2.00
		28	2.00	N 60 E	N 76 <sup>3</sup> / <sub>4</sub> E	2.00
	enter Revelle range point Red Bluff spring		15.59	S 87 E	S 70 <sup>1</sup> / <sub>4</sub> E	13.00

Computer: P. W. Larnel

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	1.41	0.76		
	1.67 0.26	0.23	0.99	
	2.09 0.42	0.84	1.83	
	2.81 0.72	0.96	2.79	
0.61	2.20	1.04	3.83	
1.54	2.15 0.66	1.28	5.11	} These 2 instances } failed, we had to } break off the survey } for darkness and } as no water and } provisions at hand } had to go ahead } to Red Bluff spring
1.10	-0.44	1.67	6.78	
0.46	-0.90	1.95	8.73	
	3.49 4.39	12.24	20.97	
3.71	7.20	20.97		
	3.71			
	3.49			
	12.79 9.30	16.37		
	12.79	37.34		

Station: *Camp Silvercannon*

16 3/4

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
	<i>Penona Springs Fork of Road</i>					
	1		0.81	S 55 E	S 38 1/4 E	0.78
	2		0.64	S 64 E	S 47 1/4 E	0.60
	3		0.61	<del>N 85 E</del> N 95 E	S 78 1/4 E	0.60
	4		0.90	N 45 E	N 61 3/4 E	0.87
	5		0.29	N 5 E	N 21 3/4 E	0.27
	6		0.52	N 82 E	S 81 1/4 E	0.50
	7		0.87	S 56 E	S 39 1/4 E	0.82
	8		0.89	S 42 E	S 25 1/4 E	0.86
	9		0.67	N 77 E	S 86 1/4 E	0.64
	10		1.18	S 40 E	S 23 1/4 E	1.15
	10a			S 30 E		
	11		0.44	<del>S 30 E</del> E 97	S 13 1/4 E	0.42
	11a					
	12		0.60	S 10 W	S 26 3/4 W	0.58
	13		0.47	S 15 W	S 31 3/4 W	0.45
	14		0.30	South	S 16 3/4 W	0.30
	15		0.69	S 53 E	S 36 1/4 E	0.67
	16		0.89	S 7 E	S 9 3/4 W	0.86
	17		0.28	S 10 W	S 26 3/4 W	0.27
			0.36	S 88 W	N 75 1/4 W	0.35
			17.69			

*Camp at Silver  
Cannon*

Computer: *P. W. Larnel*

NORTHING.      SOUTHING.      EASTING.      WESTING.      REMARKS.

*Foot of Road from  
Croya and Shiforsing*

	0.61	0.48		
	0.41 <sup>1.02</sup>	0.44 <sup>0.92</sup>		
	0.12 <sup>1.14</sup>	0.59 <sup>1.51</sup>		
0.41 <sup>0.73</sup>		0.77 <sup>2.28</sup>		
0.25 <sup>0.48</sup>		0.10 <sup>2.38</sup>		
	0.08 <sup>0.56</sup>	0.49 <sup>2.87</sup>		
	0.64 <sup>1.20</sup>	0.52 <sup>3.39</sup>		
	0.78 <sup>1.98</sup>	0.37 <sup>3.76</sup>		
	0.04 <sup>2.02</sup>	0.64 <sup>4.40</sup>		
	1.10 <sup>3.12</sup>	0.47 <sup>4.87</sup>		
	0.41 <sup>3.53</sup>	0.10 <sup>4.97</sup>		
	0.52 <sup>4.05</sup>		0.26 <sup>4.71</sup>	
	0.38 <sup>4.43</sup>		0.24 <sup>4.47</sup>	
	0.29 <sup>4.72</sup>		0.09 <sup>4.38</sup>	
	0.54 <sup>5.26</sup>	0.40 <sup>4.78</sup>		
	0.85 <sup>6.11</sup>		0.15 <sup>4.63</sup>	
	0.24 <sup>6.35</sup>		0.12 <sup>4.23</sup>	
			0.12 <sup>4.51</sup>	
0.09	0.09 <sup>6.44</sup>	0.34 <sup>4.85</sup>	0.34	

0.66	7.10	5.71	<del>0.86</del>
	0.66	0.86	1.54
	6.44	4.85	
		0.34	
		4.51	

East Longitude  $15^{\circ}10'$   
 $1047$

Station: *Camp at dry Springs - Crown District*  $16^{\circ}57'$

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.	
	CAMPS.	STATION.		MAGNETIC.	TRUE.		
		<i>Quinta Springs</i>	<i>1</i>	<i>1.70</i>	<i>S 10 W</i>	<i>S 27° W</i>	<i>1.60</i>
			<i>2</i>	<i>1.03</i>	<i>S 12 E</i>	<i>S 5° W</i>	<i>1.00</i>
			<i>3</i>	<i>2.85</i>	<i>S 4 E</i>	<i>S 13 W</i>	<i>2.70</i>
			<i>4</i>	<i>1.59</i>	<i>S 7 E</i>	<i>S 10 W</i>	<i>1.50</i>
			<i>5</i>	<i>1.18</i>	<i>S 22 E</i>	<i>S 5 E</i>	<i>1.10</i>
			<i>6</i>	<i>1.22</i>	<i>S 23 E</i>	<i>S 6 E</i>	<i>1.10</i>
			<i>7</i>	<i>1.69</i>	<i>S 25 W</i>	<i>S 42 W</i>	<i>1.50</i>
	<i>Crown Springs</i>	<i>Camp</i>	<i>0.13</i>	<i>N 60 W</i>	<i>N 43 W</i>	<i>0.12</i>	<i>Wagon trail 1.10 chas</i>

Computer: *P. W. Linnell*

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	1.43	0	0.73	
	1.00 2.43		0.09 0.82	
	2.63 5.06		0.61 1.43	
	1.48 6.54		0.26 1.69	
	1.10 7.64	0.10 1.59		
	1.10 8.74	0.12 1.71		
	1.02 9.76		1.00 2.71	
0.09 1.69			0.08 2.55	Up into the cañon
0.09	9.76	0.22 2.33	2.77 5.32	
	0.09		0.22	
	9.67		2.55	



Station: Camps at White bluff springs

16<sup>1/2</sup>

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
Groome springs		1	0.31	S 148 E	S 15 1/2 E	0.30
		2	1.36	S 191 W	S 27 1/2 W	1.30
		3	0.58	S 244 W	S 80 1/2 W	0.56
		4	1.03	S 217 W	S 53 1/2 W	1.00
		5	4.54	S 221 W	S 57 1/2 W	4.50
		6	3.89	S 221 W	S 57 1/2 W	3.80
		7	3.15	S 228 W	S 64 1/2 W	3.00
		8	3.17	S 240 W	S 76 1/2 W	3.10
		9	0.66	S 247 W	S 83 1/2 W	0.60
		10	2.56	S 263 W	N 80 1/2 W	2.40
		11	1.50	S 258 W	N 85 1/2 W	1.40
Whitebluffsprings		12	0.38	N 307 W	N 36 1/2 W	0.36

23.12

Computer:

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	0.29	0.08		
1.44	1.15	0.52	0.60	
1.53	0.09	1.07	0.55	
2.12	0.59	1.87	0.80	
7.54	2.42	5.67	3.80	
6.58	2.04	8.83	3.21	
7.87	1.29	11.59	2.71	
8.59	0.72	14.60	3.01	
2.66	0.07	15.20	0.60	
0.40	2.26	17.57	2.37	
0.11	8.15	18.97	1.40	
0.29	7.86	19.17	0.21	
0.80	8.66	0.08	19.26	
	0.80		0.08	
	<u>7.86</u>		<u>19.13</u>	

South	West
7.67	2.55
7.86	19.18
<u>17.53</u>	<u>21.73</u>

Station: *Camp at Davis Valley*

16°15'

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
	1		2.32	S 181° W	S 17° 15' W	2.10
	2		2.49	South	S 16° 15' W	2.30
	3		7.23	S 190° W	S 26° 15' W	6.50
	4		1.26	S 235° W	S 71° 15' W	1.10
	5		12.59	S 230° W	S 66° 15' W	9.00
	6		1.13	S 230° W	S 66° 15' W	1.10
	7		1.62	S 230° W	S 66° 15' W	1.60
	8		2.74	S 215° W	S 51° 15' W	2.60
	8 <sup>a</sup>		3.00	S 220° W	S 56° 15' W	2.70
	8 <sup>b</sup>		3.00	S 230° W	S 66° 15' W	2.70
	c		3.00	S 240° W	S 76° 15' W	2.70
	d		3.00	S 250° W	S 86° 15' W	2.70
	e		4.40	S 220° W	S 56° 15' W	4.00
	1st camp in Davis Valley		1.60	N 34° 2' W S 16° 2' E	N 3° 15' W	1.40
			49.38			

Computer: P. W. Laurel

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	2.01		0.62	
	2.21	4.22	<del>0.64</del>	1.26
	5.83	10.05	2.88	4.14
	0.35	10.40	1.04	5.18
	3.62	14.02	8.24	13.42
	0.44	14.46	1.01	14.43
	0.64	15.10	1.46	15.89
	1.63	16.73	2.03	17.92
	1.50	18.23	2.25	20.17
	1.09	19.32	2.47	22.64
	0.64	19.96	2.62	25.26
	0.18	20.14	2.69	27.95
	2.22	22.36	3.33	31.28
0.09	<del>0.09</del>	1.40	1.40	32.68
		21.05		
	22.45		<del>31.28</del>	
	<del>0.09</del>			
	<del>21.05</del>		32.68	
	22.36		—	

Station:

16°15

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
			4.31	S 162 E	S 1°45 E	4.00
			3.22	S 198 W	S 34°15 W	3.00
			1.20	S 155 E	S 8°45 E	1.10
			6.59	S 163 E	S 0°45 E	6.20
			3.05	N 333 W	N 10°45 W	3.00
			2.44	N 355 W	N 11°15 E	2.30
			20.81	-		

2<sup>nd</sup> Camp  
at Casin Valley  
to 1<sup>st</sup> Camp

2

3

4

5

6

Camp at  
last Spring  
South

Computer: P. W. Hamel.

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
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	4.00	0.12		
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6.48	2.48		1.69 <sup>1.57</sup>	
------	------	--	----------------------	--

7.57	1.09	0.17 <sup>1.20</sup>		
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13.47	6.20	0.08 <sup>1.32</sup>		
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2.95	10.82		0.56	
------	-------	--	------	--

2.26	8.56	0.45	0.76 1.38	} This line was measured as a best line on our way back.
------	------	------	--------------	--

		1.43		
--	--	------	--	--

--	--	--	--	--

5.21	13.77	0.82	2.25	
------	-------	------	------	--

	5.21		0.82	
--	------	--	------	--

	8.56		1.43	
--	------	--	------	--

Station: Boundary Canon

16°15'

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
		1	1.30	S 205 W	S 41°15 W	1.30
		2	3.25	S 263 W	N 80°45 W	3.20
		3	3.20	S 216 W	S 52°15 W	3.00
		4	2.41	S 217 W	S 53°15 W	2.20
		5	3.90	S 219 W	S 55°15 W	3.00
		5a	1.14	N 300 W	N 43°45 W	1.10
		6	1.15	N 279 W	N 64°45 W	1.10
		7	0.74	S 257 W	N 76°45 W	0.70
		7a	0.32	West	N 73°45 W	0.30
		8	0.33	S 200 W	S 36°15 W	0.30
		8a	0.80	S 145 E	S 18°45 E	0.70
		9	0.80	S 176 E	S 12°15 W	0.70
		10	0.87	S 185 W	S 21°15 W	0.80
		11				
	Gate	<del>11a</del>	0.85	S 205 W	S 41°15 W	0.80
	Gate	12	0.28	S 130 W	S 16°15 W	0.25
			21.34			

Boundary Springs

Computer: P. W. Hamel

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	0.98	0.98	0.86	
0.51		0.97	3.16	4.02
	1.84	2.31	2.37	6.39
	1.32	3.63	1.76	8.15
	1.71	5.34	2.46	<sup>10.61</sup> Spring on hill
0.79	4.55	1.13	0.76	11.37
0.47	4.08	0.66	0.99	12.36
0.16	3.92	0.50	0.68	13.04
0.08			0.29	
<del>0.20</del>	3.72	0.30	<del>0.67</del>	13.71
3.95	0.24	3.06	0.18	13.89
4.62	0.66	2.60	0.23	13.66
5.30	0.68	0.15	0.15	13.51
6.05	0.75		0.29	13.80
6.65	0.60		0.53	14.33
6.89	0.24		0.07	14.40
2.13	9.02	<sup>0.23</sup> 0.38	14.78	14.55
	<u>2.13</u>		0.38	63
	6.89		14.40	14.32
			14.55	



Station: Death valley 2<sup>nd</sup> upper part 16°15'

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
		1	1.25	S 215 W	S 51°15 W	1.20
		1 <sup>a</sup>	1.77	S 225 W	S 61°15 W	1.60
		2	1.77	S 223 W	S 59°15 W	1.60
		2 <sup>a</sup>	1.20	S 235 W	S 71°15 W	1.10
		3	1.20	S 150 E	S 13°45 E	1.10
		4	1.85	N 332 W	N 11°45 W	1.80
		5	0.65	N 300 W	N 43°45 W	0.65
		6	3.60	N 300 W	N 43°45 W	3.30
		7	3.00	N 300 W	N 43°45 W	2.70
		8	7.34	S 200 W		
		9		N		
		7 <sup>a</sup>	5.84	N 300 W	N 43°45 W	5.60
		7 <sup>b</sup>	0.25	N 30 E	N 46°15 E	0.25
		7 <sup>c</sup>	0.25	S 30 W	S 46°15 W	0.25
		8	1.00	N 300 W	N 43°45 W	1.00
		9	<del>4.00</del> 3.00	S 230 W	S 66°15 W	3.00
		10	2.00	N 280 W	N 23°45 W N 63°45	2.00
Across the valley in wash up		11	5.00	N 350 W	N 6°15 E	5.00
Out of canyon		12	0.50	S 170 E	S 6°15 W	0.40
Along foot hills		13	2.50	N 300 W	N 43°45 W	2.10
Into canyon		14	1.00	N 15 E	N 39°15 E	1.00
Over divide		15	3.00	N 280 W	N 63°45 W	3.00
	Camp.	16	3.00	S 10 W	S 26°15 W	3.00

43 - 63  
54

Computer: P. W. Hamel

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	0.75		0.94	0.94
	0.77	1.52	1.40	2.34
	0.82	2.34	1.38	3.72
	0.35	2.69	1.04	4.76
	1.07	3.76	0.26	Spring 4.50
1.76	2.00		0.37	4.87
0.47	1.53		0.45	5.32
2.38	-0.85		2.28	7.60
1.95	-2.80		1.87	9.47
4.04	-6.84		3.87	13.34
0.17	-7.01	0.18		up cañon 13.16
	0.17	-6.84	0.18	back to foothills 13.34
0.72	-7.56		0.69	14.03
	1.21	-6.35	2.75	16.78
0.56	-8.12	5.79	1.92	18.70
4.97	-13.09	10.76	0.54	18.16
	0.40	-10.36 -12.69	0.04	18.12
1.52	-10.88		1.45	16.67 - 19.57
0.85	-12.93 -15.06	0.52	19.05	Spring in cañon Breakfast
1.33	-14.06 -16.39		2.69	21.74 over divide 13.46
	2.69	23.07	1.33	Camp at Arapacoo springs 12.13
19.72	8.23	1.50	24.65	

Station: *Camp at Tule springs*

*16° 00*

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
		<i>1</i>	<i>0.75</i>	<i>S 55 W</i>	<i>S 71° W</i>	<i>0.70</i>
		<i>2</i>	<i>9.33</i>	<i>S 25 E</i>	<i>N 9° W</i>	<i>8.00</i>
		<i>2<sup>a</sup></i>	<i>4.52</i>	<i>N 40 W</i>	<i>N 24 W</i>	<i>4.20</i>
		<i>3</i>	<i>4.52</i>	<i>N 25 W</i>	<i>N 9 W</i>	<i>4.10</i>
<i>Wack up</i>		<i>4</i>	<i>3.25</i>	<i>N 40 W</i>	<i>N 24 W</i>	<i>3.00</i>
<i>at Tule springs</i>		<i>Canby</i>	<i>8.05</i>	<i>N 40 W</i>	<i>N 24 W</i>	<i>7.00</i>

Computer: P. W. Laurel

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	-0.23 0.23		0.66	+0.66
7.90	<del>8.13</del> 7.90	1.25	1.25	-0.59
3.84	-1.29		1.71	+1.12
4.05	-0.24		0.64	+1.76
2.74	+2.50		1.22	+2.98
6.39	+8.89		2.85	+5.83
17.02	8.13	1.25	7.08	
<del>8.13</del>			1.25	
<del>8.89</del>			5.83	
24.92				
0.23				
24.69			8.33	

13°37  
 1046  
 15°28

Station:

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
		<del>Camp near Independence</del>	3.74			
		to Lone Pine	0.36			
		Lone Pine to Owens river	4.10	109	S 55½ E	3.20
	1		1.10	84	S 80½ E	1.00
	1a		1.43	84	S 80½ E	1.40
	2		1.43	110	S 54½ E	1.40
	3		1.87	100	S 64½ E	1.70
	4		0.71	107	S 57½ E	0.65
	5		1.53	120	S 44½ E	1.40
	6		2.00	125	S 39½ E	2.00
		Camp at Owens Lake	1.59	133	S 31½ E	1.40
Camp near Independence to Lone Pine						
19.86 to review						
Camp near Independence to Owens Lake by Well and by my						
Camp near Independence to Lone Pine by Well						
+						
Camp Trip to Lone Pine given by Well						

Computer: *P. W. Darnell*

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	1.81	2.64		
1.98	0.17	0.99	3.63	
2.21	0.23	1.38	5.01	
3.02	0.81	1.14	6.15	
3.75	0.73	1.53	7.68	
4.10	0.35	0.55	8.23	
5.10	1.00	0.98	9.21	
6.64	1.54	1.27	10.48	
7.83	1.19	0.73	11.21	
	<u>7.83</u>	<u>16.21</u>		
	15.84	8.33		
	<u>23.67</u>	<u>19.54</u>		
	13.19	7.26		
	2.65	1.07		
	<u>15.84</u>	<u>8.33</u>		

1.82  
3.64

13° 40  
1° 46  
-----  
15° 26

Caso

Station: Lucas Camp (Dry Camp)

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
		1	2.44	S 145 E	S 19 1/2 E	2.20
		1a	0.73	S 174 E	S 9 1/2 W	0.70
		2	1.09	S 137 E	S 27 1/2 E	1.00
		3	2.71	S 105 E	S 59 1/2 E	2.50
		3a	1.25	S 146 E	S 18 1/2 E	1.10
		4	4.35	S 136 E	S 28 1/2 E	4.00
		5	2.86	S 125 E	S 39 1/2 E	2.70
		6	0.92	S 195 W	S 30 1/2 E <del>26 E</del>	0.80
		Camp at Lucas Camp	0.18	S 107 E	S 57 1/2 E	0.16
			16.52			

Computer:

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	2.07	0.73		
2.76	0.69		0.12	2.61
3.65	0.89	0.46		1.07
4.92	1.27	2.15		3.20
5.96	1.04	0.35		3.57
9.48	3.52	1.91		5.48
11.56	2.08	1.72		7.20
12.25	0.69	0.41		7.61
12.34	0.69	0.13		7.74
	12.34	7.86	0.12	
	7	0.12		
		7.74		



13° 21  
 1° 46  
 15° 07

Station: *Darwin Canon*

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
				<del>S 122 E</del>		
		1	1.38	S 122 E	S 43 E	1.30
		2	0.74	S 145 E	S 20 E	0.70
		2a	1.25	N 82 E	S 83 E	1.20
		3	3.70	N 80 E	S 85 E	3.30
		4	2.14	N 68 E	N 83 E	2.00
		5	3.58	<del>N 352 W</del> S 172 E	<del>N 7 E</del> S 7 W	3.00
		6		<del>N 330 W</del>		
		<i>Camp at Spring</i>		<del>S 235 W</del>		
		6a	0.98	N 352 W	N 7 E	0.90
		7	1.86	<del>S 150 E</del>	S 45 E	1.70
		<i>Darwin Camp at Spring</i>	0.36	N 55 E	N 55 E	0.30
			15.99			

Computer:

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	0.95	0.89		Character glass was broken. I have a little doubt about the readings of this day being very right as the distance appears a little too small. Mr. Egan, our guide, called the distance I think 23 miles.
1.61	0.66	0.24	1.73	
1.96	0.15	1.19	2.31	
2.05	0.29	3.29	5.61	
0.24	1.81	1.99	7.60	
2.98	-1.17	0.37	7.97	
0.89	-2.06	0.11	8.08	
	1.20 -0.36	1.20	9.28	
0.17	-1.03	0.25	9.53	
4.28	3.25	9.53		
3.25		<u>5.5</u>		
1.03		<u>15</u>		

Station: *Wild rose springs*

130 25  
10 26  
15 11

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
	<i>Danwin Springs</i>					
		0a	0.25	<del>N 55 E</del>	N 55 E	0.20
		1	0.77	N 66 E	N 81 E	0.60
		2	0.50	N 45 E	N 60 E	0.30
		2a	0.98	N 10 W	N 5 E	0.90
		3	0.98	N 45 E	N 60 E	0.90
		3a	0.50	N 80 E	S 85 E	0.40
		4	1.70	N 45 E	N 60 E	1.60
		5	5.90	S 120 E	S 45 E	5.70
		6	6.15	S 105 E	S 60 E	6.70
		7	1.78	S 95 E	S 70 E	1.60
		<i>Camp? Wild rose springs</i>	4.32	N 35 E	N 50 E	3.60
			77			
			23.83			
						149
						145

Computer: *P. W. Haniel*

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
0.11		0.16		To lower springs
0.09	- 0.20	0.59	0.75	
0.15	0.35	0.86	1.01	1) up hill on serpentine trail then along water catch
0.90	1.25	0.08	1.29	2) in ravine after coming down serpentine. Keep trail trail in ravine way of from here in South direction
0.45	1.90	0.78	1.87	3a in wash winding road
	0.03 - 1.63	0.40	2.27	3a wash 4 - same wash go over lower foothills
0.80	-0.23 - 2.43	1.39	3.66	
1.60	4.03 + 2.43	4.03	7.69	Footh of trail to Hesperia Spg
4.95	3.35 + 5.75	5.80	13.49	4) on higher foot of gentle slope of foothills
5.50	0.55 + 6.30	1.50	14.99	7) go into wash at about 1 mile under hills
2.31	3.19	2.76	17.75	
4.81	7.96	17.75		
	4.81			
	3.15			

Death Valley Canyon  
 W. W. 1880

Variation 16° 17'

Station:

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
	W. W. Rose springs	0 a	0.15	N 35 E	4° S 50 W	0.12
		0 b	1.00	S 10 E	10° S 5 E	0.90
		1	2.22	North	N 15 E	1.80
		1 a	0.31	358	N 13 E	0.26
		2	0.31	5°	N 20 E	0.22
		2 a	0.55	10°	N 25 E	0.48
		3	0.55	5°	N 20 E	0.46
		3 a	0.82	35	N 50 E	0.74
		4	0.82	57	N 72 E	0.73
		5	3.93	87	S 78 E	3.30
		6	1.13	115	S 50 E	0.83
		Camp	0.29	270	N 75 W	0.20

Computer:

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
<del>0.08</del>	0.03	<del>0.09</del>	0.09	
0.90	<del>0.90</del>	0.08	<del>0.08</del>	0.01
1.74	2.56 2.56	0.47		0.44
0.25	2.81	0.06		0.52
0.26	3.07	0.10		0.64
0.44	3.51	0.20		0.84
0.43	3.94	0.16		1.00
0.48	4.42	0.57		1.57
0.23	4.65	0.69		2.26
	3.96 0.69	3.23		5.47
	3.43 0.53	0.64		6.13
0.05	3.48		0.19	5.94
3.96	2.12	6.21	0.27	
<del>2.12</del>		<del>0.27</del>		
4.84		5.94		
4.78	1.30			
1.30				
3.48				

Keith Valley Canon to

Hadley's Spr.

Station:

Furnace Creek

Varied from 16° 03

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
	Hadley's Spring Furnace Creek	0a	0.29	60°	N 76 E	0.20
		1	3.53	60°	N 76 E	2.70
		1a	3.31	90	S 74 E	2.60
		2	4.54	65	N 79 E	3.60
		2a	2.00	10	N 26 E	1.70
		3	8.14	345	N 1 E	7.00
		3a	0.50	35	N 51 E	0.40
	Camp at Furnace Creek Hadley's Spring		1.14	120	S 44 E	1.00

Computer:

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
0.05		0.19		
0.65	0.70	2.62	2.81	
	0.72 <sub>002</sub>	2.50	5.31	
0.69	0.67	3.53	8.84	
1.53	2.20	0.75	9.59	
7.00	9.20	0.12	9.71	
0.25	9.45	0.31	10.02	
	8.73 0.72	0.69	10.71	
10.17	1.44	10.71		
1.44				
8.73				



Station: *Ash Meadows Camp,*

*16° 07'*

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
	<i>Hadley's Springs</i>					
	<i>Furnace Hill</i>					
		1	2.15	125	S 39 E	2.00
		2	3.59	81	S 83 E	3.10
		2a	1.61	100	S 64 E	1.40
		2b	0.30	100	N 64 W	0.30
		3	3.40	60	N 76 E	3.00
		3a	1.20	20	N 36 E	1.10
		4	1.15	50	N 66 E	1.00
		5	1.96	25	N 41 E	1.70
			0.39			0.30
		6	0.30	25	S 60 W	0.30
		6a	0.09	295	N 85 W	0.09
		6b	0.09	170	N 6 E	0.09
			0.35			0.30
		7a	0.35	170	N 6 E	
			<del>1.48</del>			
	<i>Summit</i>	7b	1.83	53	N 69 E	1.70
		8	4.28	53	N 69 E	3.00
		9	4.53	90	S 74 E	4.00
		10	3.20	80	S 84 E	3.00
		10a	4.64	119	S 45 E	4.50
	<i>Camp at Springs</i>		4.68	235	N 71 E	4.00
	<i>Camp at Meadows near to Foot hills</i>		1.35	235	N 71 E	1.20
			40.79			

Computer:

NORTHING. -	SOUTHING. +	EASTING. +	WESTING. -	REMARKS.
	1.55	1.26		
	1.93 0.38	3.08	4.34	
	2.54 0.61	1.26	5.60	
0.13	2.41		0.27 5.33	In narrow gouge turn back
0.73	1.68	2.91	8.24	
0.89	0.79	0.65	8.89	
0.41	0.38	0.91	9.80	
1.28	+0.90	1.12	10.92	
	+0.75 0.15		10.66 0.26	
0.04 -0.79	+0.75 <del>0.24</del>	0.08 10.66	0.08 10.58	up wash turn back down wash up wash down wash
0.30 -1.05		0.03 10.69		
0.61 -1.66		1.59	14.28	
1.08 -2.74		2.80	15.03	
	1.10 -1.64	3.85	18.93	
	0.31 -1.33	2.98	21.91	
	3.18 +1.85	3.18	25.09	
1.30	+0.55	3.78	28.87	
0.39	+0.16	1.14	30.01	
7.16	7.32	30.62	0.61	
	7.16	0.61		
	0.16	30.01		

Station: Ash Meadows Camp

16007

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
	Ash Meadows Camp (Cold Springs)					
		0a	1.62	164°	South	1.40
		1	1.41	140°	S 24 E	1.20
		1a	2.49	154°	S 10 E	2.00
		1b	1.00	271° 271°	N 73 W	1.00
		2	2.18	230°	S 56 W	2.00
		2a	2.22	170°	S 6 W	2.00
		Camp at Cold Springs	0.03	170°	S 6 W	0.03
		Camp at Cup Spring	11.95			
		1	5.81	191	S 27 W	5.00
		1a	3.65	207	S 43 W	3.00
		2	2.50	135	S 29 E	2.00
		3	2.70	265 85	S 79 E	2.00
		3a		335		
		3a	3.02	335 335	N 9 W	2.00
				155		
				1	N 16 E	
				350	N 6 E	
		4	5.63	335	N 9 W	5.00
		Camp at Cold Tote Springs	8.75	320		
		5	2.50	360	N 16 E	2.00
		N.W. about Cup Spring Camp	3.00	40	N 56 E	2.50
		at Cold Tote Springs.	3.20	348	N 4 E	2.50
			101			
			30.31			
			23.81			

Computer:

NORTHING.	SOUTHING.	EASTING. +	WESTING. -	REMARKS.
	1.40			
	1.10	0.45		
4.47	1.97	0.35	0.30	
0.29	0.81		0.96	-0.16
	1.99		1.83	-1.99
			0.21	-2.10
			0.03	-2.23
0.29	7.27	0.80	3.03	
	0.29		0.80	
	6.98		2.23	
	4.45		2.27	
6.64	2.19		2.05	4.32
8.77	1.75	0.97		3.38
8.77	0.38	1.96		1.39
1.98	6.77		0.31	1.70
4.78		0.20		0.24 South
4.97	1.85	0.52	0.78	West
		1.46		2.23
				2.63
				5.34 South
1.92	-0.07	0.55	0.63	0.40 East
1.40	-1.47	2.07	1.45	-31
0.17	-1.64	2.49	2.72	-2.38
10.41	8.77	9.50	4.63	-2.63 -4.87
8.77		4.63	4.63	
1.64		4.87		



Skump Springs 16024

Computer:

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
0.34		1.36		
0.09			5.00 1.36	
0.43			3.64	
<del>0.12</del>	0.12	<del>0.22</del>	0.22	} Made on the Made next day
+ 0.23 0.21	0.09	5.20	<del>5.42</del> 4.98	
5.06 5.24	5.03	2.68	8.10 7.66	
7.43 7.21	1.97	2.26	10.36 9.92	
7.47 7.65	0.44	0.90	11.26 10.82	
7.66 7.84	0.19	0.41	11.67 11.23	
7.93 8.11	0.27	0.41	12.08 11.64	
9.03 9.21	1.10	1.90	13.92 13.54	
11.61 11.79	2.58	5.42	19.40 18.96	
11.75 11.93	0.14		0.21	
	<del>11.81</del>	19.18		19.19 18.75
	<del>0.12</del>	0.43		
11.93	11.69	19.19	18.75	
	2.80	4.85		
7.77	4.97	0.52	5.37	
11.66	3.89	3.15	8.52	
- 13.41	2.08	1.20	9.72	
	13.74	9.72		

Station:

16<sup>th</sup>

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
			<del>5.01</del>			
		Stumps springs	5.01	82 $\frac{1}{2}$	S 81 E	4.60
			8.24	63	N 79 $\frac{1}{2}$ E	7.00
			4.19	55	N 71 $\frac{1}{2}$ E	3.30
		Cross Road to Tellico Pine District	1.50	85	S 78 $\frac{1}{2}$ E	1.30

Computer:

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	0.			
	0.72	4.54	22	
1.28	0.56	6.88	11.42	
1.05	1.61	3.13	14.55	
1.35	0.26	1.27	15.82	
2.33	0.98	15.82		
0.98				
1.35				



Station: Van der Bult Springs

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
		Crystal Springs				
		1	4.39 <sup>50</sup>	174	S 10 W	4.10
		2	1.79 <sup>5</sup>	198	S 34 W	1.70
		2a	0.60 <sup>5</sup>	234	S 70 W	0.60
		3	0.60 <sup>8</sup>	178	S 14 W	0.50
		4	4.05 <sup>6</sup>	164	South	3.70
		5	4.68 <sup>10</sup>	178	S 14 W	4.40
		6	7.37 <sup>10</sup>	170	S 6 W	6.60
		7	1.71 <sup>10</sup>	199	S 35 W	1.50
		8	1.50	153	S 11 E	1.30
		9	0.43 <sup>20</sup>	126	S 38 E	0.35
		10	2.61 <sup>15</sup>	160	S 4 E	2.20
		11	<del>2.86</del> 0.25 / 75	196	South	0.25
		11a		16	North	0.25
		11b		135	S 45 E	0.70
		11c		90	East	0.75
		11d			North N 45 W	1.00
		Camp at Socuprah	4.75		S North	2.00

Computer:

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	4.04		0.71	
5.45	1.41		0.95	1.66
5.66	0.21		0.56	2.22
6.14	0.48		0.12	2.34
7.24	3.70			
16.11	4.27		1.06	3.40
20.07	6.56		0.69	4.09
21.97	1.23		0.86	4.95
22.25	1.28	0.25		4.70
23.53	0.28	0.21		3.49
23.75	0.22	0.02		3.47
24.00	0.25			
0.25	<sup>23.75</sup> 23.75			
	<sup>24.25</sup> 24.18	0.50	0.50	2.97
		0.75		2.22
1.00				
<del>0.71</del>	<sup>22.25</sup> 24.05		<del>0.71</del>	1.82
<del>2.00</del>	1.40	1.40		
4.96	25.83	1.73	4.95	
1.25	1.25	3.13	3.13	
	21.47		1.82	
	24.58		1.82	

Station: Van der Buel springs and Springs 15<sup>th</sup> 117

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
	Camp at Jocupah					
	1	1	5.80 <sup>10</sup>	93	S 66 E	5.30
		1a	2.34 <sup>6</sup>	140	S 24 E	2.20
		2 <sup>b</sup>	2.33 <sup>6</sup>	160	S 4 E	2.20
		3	3.13 <sup>6</sup>	155	S 9 E	2.90
		4	4.64 <sup>6</sup>	125	S 39 E	4.30
		Camp at Van der Buel springs	4.07 <sup>10</sup>	125	S 39 E	3.60

Computer:

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	2.16	4.84		
4.17	2.01	0.90	5.74	
6.37	2.20	0.02	5.76	
9.23	2.86	0.45	6.21	
12.57	3.34	2.71	8.92	
15.37	2.80	2.27	11.19	
	15.37	11.19		

Station: Pah Ute Springs

15 1/4

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
		0a	0.46 <sup>60</sup>	330	N 14 1/4 W	0.43
		1	0.47 <sup>6</sup>	360	N 15 1/4 E	0.44
		2	2.20 <sup>12</sup>	112	S 52 1/4 E	1.90
		3	1.81 <sup>10</sup>	100	S 64 3/4 E	1.70
		4	0.99 <sup>8</sup>	167	S 2 1/4 W	0.90
		5	6.65 <sup>6</sup>	125	S 39 3/4 E	6.20
		6	5.50 <sup>6</sup>	125	S 39 1/4 E	5.20
		7	9.52 <sup>12</sup>	125	S 39 3/4 E	8.30
	Summit 5 miles	8	10.42 <sup>20</sup>	73	N 88 1/4 E	0.40
	Camp at Pah Ute spring		1.71	71 31	N 46 1/4 E	1.20
			27.60			

Computer:

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
0.42			0.10	
0.42 <sup>0.32</sup>		0.12		0.92
0.32	1.16	1.50		1.52
1.04	0.72	1.54		3.06
1.94	0.90		0.04	3.02
6.71	4.77	3.97		6.99
10.41	4.00	3.33		10.32
<del>6.38</del>	6.38 <sup>17.07</sup>	5.31		15.63
0.01		0.40		16.03
0.83 <sup>16.25</sup>		0.87		16.90
1.68	17.93	17.04	0.14	
	1.68	0.14		
	<u>16.25</u>	<u>16.90</u>		

Station: *Camp Mohave (Kamillaham 14° 49'*

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
	<i>Camp Pah-Utah</i>					
		1	0.57	75	East	0.54
		2	5.05	76 $\frac{1}{2}$	S 88 $\frac{1}{2}$ E	4.20
		3	4.42	76 $\frac{1}{2}$	S 88 $\frac{1}{2}$ E	4.20
	<i>Summit</i>	4	1.84	76 $\frac{1}{2}$	S 88 $\frac{1}{2}$ E	1.70
		4a	1.00	54	N 69 E	1.00
		5	2.86	98	S 67 E	2.60
		6a	4.38	102	S 63 E	4.20
		6a	0.15	102	S 63 E	0.15
		7	1.06	340	S 5 E	1.00
		7a	0.85	105	S 60 E	0.80
		7b	0.25	183	S 18 W	0.20
		8	0.10	<del>280</del> <sup>80</sup>	S 35 E	0.10
	<i>River</i>	9	0.10	85	S 80 E	0.10
		<i>Camp</i>	0.09	140	S 25 E	0.09

Computer:

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
		0.54	0.54	
	0.13	4.80	5.34	
	0.11 <sup>0.24</sup>	4.20	9.54	
	0.04 <sup>0.28</sup>	1.70	11.24	
0.36 - 0.08		0.93	12.17	
0.94	1.02	2.39	14.56	
2.85	1.91	3.74	18.30	
3.94	0.07	0.13	12.43	
4.94 <sup>3.92</sup>	1.00	0.09	0.09	18.52
4.32	0.40	0.69		19.21
4.51	0.19		0.06	17.15
4.52	0.01	0.10		19.25
4.54	0.02	0.10		19.17 19.35 600' river breadth a. 10 m. 2
4.62	0.08	0.04		17.21 19.39
0.36	4.98	19.45	0.06	
	0.36	10.06		
	4.62	19.39		



# Side line to the North

Station: ~~to Buttrick District.~~

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
May 20 <sup>th</sup>	Carlin	Camps		Running N <sup>e</sup> of miles	Airline <sup>miles</sup>	Percentage approx. miles
0 -	Magy Creek	0-1	21.77	21.77	17.3	20%
21	to on divide	1-2	22.74	44.51	19.8	15%
22	to Cottage Camp	2-3	12.20	56.71	10.7	12%
23	to Bullrun	3-4	30.77	87.48	23.5	24%
26	to state "Camping of desperado"	Judithville 4-5	12.71	100.19		
	to Coolidge Trading		13.31	113.50	10.6	20%
28 27	to Snow Camp	5-6	24.48	137.98	19.8	20%
29 28	to Rose Camp	6-7	28.60	166.58	26.9	6%
30	to Paterson	7-8	25.24	191.82	23.4	7%
June I	to Huntley	8-8	2.11	193.93	2.10	1%
2	to Watson	8-9	2.11	196.04	2.10	1%
3	to Alena	9-9	12.73	208.77	10.60	16%
5	to Mill Creek	9-10	17.89	226.66	15.20	15%
6	to Hot Springs	10-11	14.87	241.53	12.90	14%
7	to Rose river	11-12	18.73	260.26	16.00	14%
9	to near Mitchels	12-13	26.48	286.74	22.60	14%
10	to Brickyard	13-14	15.43	302.17	13.30	14%
14	to Bear creek	14-15	15.77	317.94	9.30	40%
15	to Davis Camp	15-16	26.33	344.27	20.00	25%
16	to Camp Ophir	16-17	14.31	358.58	10.70	25%
18	to Jefferson	17-18	26.00	384.58		
19	to Meadow Camp	18-19	5.30	389.88		

Computer:

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
17.067			2.736	Astronomical Tent No. Camp (Stat 10)
19.270		4.904		Northing 0.219 = 0° 0' 11"
10.475			2.318	Westing 0.334 = 0° 0' 23"
23.169			3.797	
	10.996		1.708	
	10.553	1.641		to change some here being 1/2 of miles
	17.461		8.700	
	23.980		11.590	
	14.040		18.679	Difference between Center & Bartland Astronomic Station is
1.982			0.270	7.349 South 42.983. Marking
	1.982	0.270		6' 23" — 49' 27.12"
	5.601		9.008	11" 2/3
	14.015	6.106		6' 12" 49' 50"
	12.120		4.595	(53' by center) (48' 45' 6" West)
	15.816		2.397	255 feet from Bartland 1' 5" longitude 0' 42" latitude
	22.437		2.046	Upper end of tower (Stat 10) of Austin is 5.94
	9.995	8.837		79.510 South 4.24 West
0.025	9.226	2.837	0.191	109' 8" 1' 26.4"
	19.102		5.969	6' 40"
	8.439		6.659	of Rate Stat. at Bartland by center 7' 44"
	15.446	16.355		Camp at Meadow Creek is
	1.718	3.921		54.40 South 10.29 East
			18.046	47' 18" " 10' 22" "
				of Upper end of Austin

Station:

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
				389.88		
June 26	Meadow Camp to Amherst Camp		10.82	400.70		
27	to Green Springs		20.64	421.34		
28	North Hambleton mine		21.32	442.66		
29	to Pine Creek Station		18.13	460.79		
30	to Meadow Creek		18.58	479.36		
July 5 <sup>th</sup>	to Ent. of Cairn		6.60	485.96		
6	to Stone Cabin		37.49	523.45		
7-8	to Redbluff Springs		50.58	574.03		
9	Cairn Cairn to Pancaya Spr		24.69	598.72		
10	Pancaya Spr Road to Staves Cairn		17.69	616.41		
22			25.00			
24	to Negusita Springs		11.39	627.80		
25	to Green Springs		23.12	650.92		
26-27	to Cass's Valley 1st Camp		49.38	700.30		
27	to 2nd Camp from 1st Camp		11.81	712.11		
28	to Southern Spring in Davis		20.81	732.92		
29	to Boundary Camp Spring		21.34	754.26		
30	to Grape wine Springs		43.75	798.01		
31						
Aug 1	to Took Springs		30.42	828.43		
2	to Pigeon Springs		8.67	837.10		
3	to Pipers Ranch		19.95	857.05		
4	to Deep Spring Camp		17.57	874.62		
5	to Pine Creek		21.05	895.62		

Computer:

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
6.91		6.19		
10.71			14.26	Balance of Survey
2.68		9.06		From Pine Creek and back
	13.13	5.61		Northing 13.39 Westing 14.26
	5.98		5.96	Southing 13.13 Easting 14.67
	28.94	8.81		0.26 0.41
	12.79	37.34		Close 0.47.
				1 <sup>st</sup> to 14 <sup>th</sup> plotted also made magnetic observations
	6.44	4.85		The latter part of this Survey is mostly Cass' work
	9.67		2.55	11 <sup>th</sup> mounted Quartz pit
	7.86		19.18	12 <sup>th</sup> pit at intersection
	22.36		32.68	13-20 measured & plotted
4.00	4.00		0.12	The 28 <sup>th</sup> traverse about 30 miles from Silver Lake to Keyhole spring
	8.56		1.43	23 went up to Thompson's pit
	6.89		14.40	
11.49			23.15	This dist. curve is not a direct line
24.69			8.33	Followed the spring and went back to it
	31.03		97.94	
	31.03			
	31.03			

Station:

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	
			895.62			
6	to Fisk Creek		9.19			
	Camp Independence					
	to Pine City					
10	Camp Owens		<del>19.80</del>			
	from Pine to Camp Owens		19.80			
	to Lucas Camp		16.52			
	to Darwin Springs		15.99			
	to Wildrose spring		23.83			
	to Death valley cañon		3.2			
	to Furnace creek					
	to Ash meadows					
	to Pahsimop springs					
	to Shungo springs					
	to Cross River to Yellow Pine					
	Crystal spring					
	to Lovins Park					
	Lovins Park to Van der Bilt					
	to Park Lake spring					
	to Camp Hoove					

700  
211  
950

# Computer:

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
	15.84	8.33		taken from Whitney Map (or reverse)
	7.83	10.21		
	12.34	7.74		
1.03		9.53		
	3.15	17.75		Camp Independence to Madison 3 36.20 56.23 East 1 to southeast 67 00 00
3.48		5.94		
8.73		10.71		
	0.16	30.01		
	11.93	18.75	<del>18.75</del>	Camp Independence to Cremery of Road to Yellow Pine district South 50.40 East 145.51 6 6 3
	13.74	9.72		
1.35		15.82		
				64.99 3 2 14.59 11
	24.58		1.82	
	15.37	11.19	<del>11.19</del>	50.40 56.20 28.09
	16.25	16.90		
	2.62	19.21		Sum 26.11 47.30 58.82 23.10 East 1.80 45.50

Station: \_\_\_\_\_

DATE.	NO. OF		DISTANCE BY ODOMETER.	BEARING.		REDUCED DISTANCE.
	CAMPS.	STATION.		MAGNETIC.	TRUE.	

*Connection in Independence Valley*

Computer:

NORTHING.	SOUTHING.	EASTING.	WESTING.	REMARKS.
17.07			2.74	
19.27		4.90		
10.48			2.32	
23.17			4.10	North West
	10.58		0.91	69.99 420
	10.55	1.64		
	17.76		8.70	
	23.98		11.59	69.99 30.36 62.875 <sup>500</sup> 6.54 23.82 west
				Note 7.12 Counts at Rock creeps 7.12 North 23.82 West of the line





Carlin by astr.  $40^{\circ} 42 \frac{1}{2}$   
 E 116  
 by Map  $40^{\circ} 48 \frac{3}{4}$

$116^{\circ} 07' 15''$

$115^{\circ} 44' 30''$

Length of Stearns road  
 from Battlement to Belmont 4.77

- Hill Creek - 25.00
- Hot Springs - 14.87
- San Jose Stk - 14.85
- 17.38
- 19.00
- Austin - 2.04
- Clear Fork Station - 15.74
- Minion - 16.54
- Mount Stk - 17.47
- Pine Creek - 15.61
- Headwaters - 11.63
- to town 3.50

---

- 176.40
- 65
- 180.05

Silver Peak is  $37^{\circ} 45'$  North  
 $2' 15''$  true west of Austin  
 $= 33 \frac{3}{4}'$  west of Austin

Tramel went down South from Ash Meadows  
 trail to a point 14 miles West  
 37 miles North of Comstock mines.

111.7	72.6
97.6	41.8
14.1	30.8

Position approximation of Battlement Astr. Stk.

~~$116^{\circ} 56$   
 $40^{\circ} 48 \frac{3}{4}$   


---

 $117^{\circ} 44 \frac{3}{4}$   
 $33 \frac{3}{4}$~~

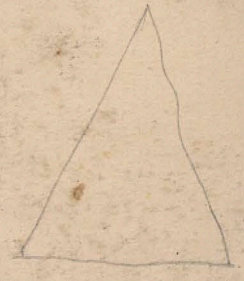
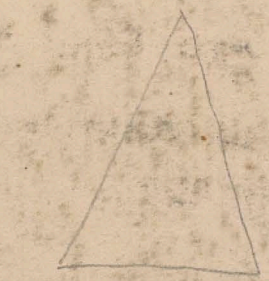
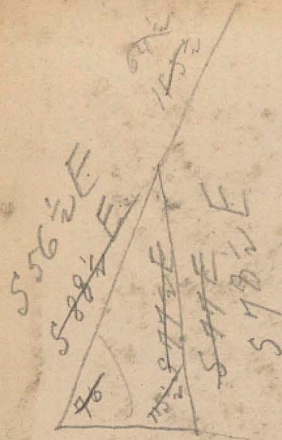
~~$40^{\circ} 37$   
 $40^{\circ} 42 \frac{1}{2}$   


---

 $40^{\circ} 42 \frac{1}{2}$~~  } Position of Austin

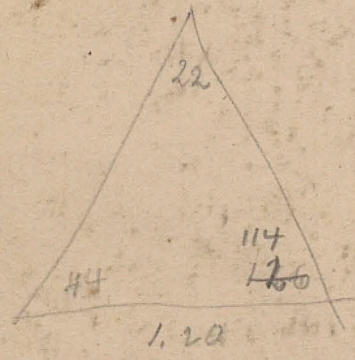
~~$118^{\circ} 28 \frac{1}{2}$   
 $118^{\circ} 18 \frac{1}{2}$~~   $37^{\circ} 45'$  Silver Peak

Position Battlement  $116^{\circ} 56$   $40^{\circ} 37'$   
 $48 \frac{3}{4}'$



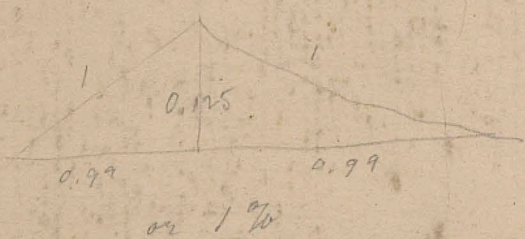
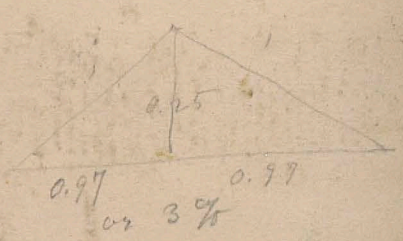
Camp  
512 ft E  
1.20  
00

Camp I



Sin 114 :  
Sin 22 : 1.20 = 114 : x

log 1.20	0.0792
+ log sin 114	0.9607
cos 24	<hr/>
	1.0399
- log sin 22	5736
	<hr/>
	0.4663



904  
486  

---

1418

Approximat. Position of

Battle Mt 116° 56  
40° 37

Longit. 48 3/4' off betw Carlin & Battle  
40° 42' in latit. of Carlin  
by Austin

9h 40 Obs - 52'  
+ 1047

31" West of Battle  
39° 29' West of Austin

31"

40° 37  
39° 29'

2160

3600

900 (7/2)

23.2  
23.2  
46.4  
6.96  
46.4  
53.24  
57.5  
4  
155

Hi!  
41'  
41'  
164  
168.1

400 6013  
450  
1513  
1380  
330

13 3/4

24  
00

1440

2880

24  
00

480

2480

2620

3

360

31

15

15

15

15

15

15

15

15

15

15

15

15

15

15

15

15

15

15

120 54 120 150 (0.13)  
120 300 001

40° 37  
39° 29'  
1° 8

7' 80"

30"

15

15

15

15

15

15

15

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