

PRELIMINARY LINES.

	PARTY No. 1. JULY 5TH TO OCTOBER 1ST.	PARTY No. 2. JULY 22D TO OCTOBER 20TH.	PARTY No. 3. AUGUST 1ST TO NOVEMBER 19TH.	PARTY No. 4. SEPTEMBER 21ST TO OCTOBER 21ST.
	87 days.	90 days	111 days.	30 days.
Miles run and topography taken.....	145.8	166.3	164.1	23.2
Miles run, no topography taken.....	39.3	16.0	3.6
Total miles preliminary run.....	185.1	166.3	180.1	31.8
Total number payroll days.....	1380	1323	2033	635
Average daily number of men.....	15.9	14.7	18.3	21.2
Average miles per day per party.....	2.12	1.85	1.62	1.06
Total cost of subsistence.....	\$513.18	\$646.42	\$763.53	\$371.47
Average daily cost, subsistence per man	\$0.37	\$0.49	\$0.38	\$0.58
Relative cost percentage to lowest man	100	133	103	157
subsistence.....				
Total payroll cost (except teams).....	\$2 592.55	\$2 683.22	\$3 381.56	\$1 055.55
Average daily pay per man.....	\$1.81	\$2.03	\$1.66	\$1.66
Total cost for teams.....	\$522.00	\$560.23	\$768.55	\$386.15
Daily " ".....	\$6.00	\$6.22	\$6.92	\$12.87
Contingencies.....	\$88.48	\$112.95	\$91.84	\$125.73
Total cost of party.....	\$3 629.96	\$4 002.82	\$5 057.96	\$1 938.23
Daily " ".....	\$41.72	\$44.48	\$45.57	\$64.61
" " per man.....	\$2.63	\$3.03	\$2.49	\$3.05
Cost per mile.....	\$9.61	\$24.07	\$28.08	\$60.95
Relative percentage to lowest man per	100	123	143	311
mile.....				

LOCATED LINES.

	PARTY No. 1.	PARTY No. 2.	PARTY No. 3.	PARTIES Nos. 2 AND 3 COMBINED.	PARTY No. 4.
	65 days.	37 days.	8 days.	48 days.	66 days.
Miles located.....	56.0	37.8	7.6	42.6	39.2
Total number payroll days.....	1400	709	151	1498	1288
Average daily number of men.....	21.5	19.0	19.0	31.2	19.4
Average miles per day per party.....	0.86	1.02	0.95	0.89	0.65
Total cost subsistence.....	\$515.55	\$273.07	\$59.50	\$599.20	\$574.45
Average daily cost subsistence.....	\$0.37	\$0.39	\$0.39	\$0.40	\$0.59
Total payroll (except teams).....	\$2 410.10	\$1 143.11	\$242.70	\$2 532.74	\$2 049.25
Average daily pay per man.....	\$1.72	\$1.61	\$1.61	\$1.71	\$1.60
Total cost for teams.....	\$434.74	\$212.71	\$43.10	\$496.00	\$445.85
Daily " ".....	\$6.69	\$5.75	\$5.39	\$10.33	\$6.76
Contingencies.....	\$143.36	\$46.76	\$15.70	\$196.00	\$133.84
Total cost of party.....	\$3 503.75	\$1 675.65	\$361.00	\$3 893.94	\$3 203.59
Daily cost of party.....	\$53.90	\$45.22	\$45.12	\$80.29	\$48.54
Daily cost per man.....	\$2.50	\$2.36	\$2.39	\$2.57	\$2.50
Cost per mile.....	\$62.57	\$44.33	\$47.50	\$90.47	\$81.72
Relative percentage to lowest man per	141	100	107	204	184
mile.....					

There are various things to be taken into consideration in judging the fluctuations in the cost of these surveys. The preliminary location by Party No. 1 was over a severe country, and embraced the heaviest work on the whole line; at the same time, much difficulty was experienced in getting a grade between certain points on the line located by Party No. 3. Party No. 2 had the lightest country.

There is charged to the expense of Party No. 4, the cost of moving a long distance from other work to this line, which amount, together with the short time they were engaged on preliminary, abnormally increased the cost of their work; at the same time, it is evident that this was decidedly the most expensive party on the work, their work per unit of cost, costing more.

For instance, their subsistence was 57% more than that of Party No. 1, and the team hire more than double that of the other parties; while the actual number of men in the field was relatively the same. It is probable that the cost of the work done by this party was really about 60% more than the others instead of 200% as shown by the cost per mile.

On location, Party No. 1 carried a very heavy and expensive sounding party, consisting of a man in charge, four or five laborers and a team; the nature of this work was such that it was much more expensive than that conducted by any of the other parties.

After completing the location, Party No. 1 was engaged in running other preliminaries and locating a short branch, the cost of this work not being distributed, but included in the total cost of the survey, the amount being \$2 478.02.

On location, Parties Nos. 2 and 3 were combined after each had run in a short distance separately; this was necessitated by the approaching cold weather and the desire to complete the location at the earliest possible moment; the result shows it to have been an uneconomical proposition as far as cost per mile is concerned; but both of these parties had much additional preliminary work to perform as they proceeded with the location.

What has been noted of Party No. 4 on preliminary is true on location, though its cost is somewhat burdened by the charges incident to moving the party elsewhere, and the fact of its happening about Christmas, when many men were given vacations with pay. This Christmas expense was encountered to a somewhat less extent by