#1

Baggs, Carbon County, Wyoming

	Per cent of Sample
Bitumen extracted	11.1
Passing 10-mesh sieve, retained on 20-mesh sieve	1.1
Passing 20-mesh sieve, retained on 30-mesh sieve	7.2
Passing 30-mesh sieve, retained on 40-mesh sieve	22.8
Passing 40-mesh sieve, retained on 50-mesh sieve	25.4
Passing 50-mesh sieve, retained on 80-mesh sieve	23.6
Passing 80-mesh sieve, retained on 100-mesh sieve	3.7
Passing 100-mesh sieve, retained on 200-mesh sieve	3.2
Passing 200-mesh sieve	1.9

Percent of mineral aggregate insoluble in hydrochloric acid . . 98.82

Tests on extracted bitumen	
Specific gravity, 25° C.	1.108
Penetration, 25° C.	0
Softening point (°C)	88
Bitumen, soluble in carbon disulphite	96.15
Organic matter insoluble	3.37
Inorganic matter insoluble	0.48
Per cent bitumen insoluble in 86° B. naphtha	38.74

Penetration result indicates that consistency of the bitumen is too hard for the material to be satisfactory as a road surfacing material.

E. F. Kelley,

#2

Baggs, Carbon County, Wyoming.

	Per cent of sample
Bitumen extracted	7.3
Passing 10-mesh sieve, retained on 20-mesh sieve	1.0
Passing 20-mesh sieve, retained on 30-mesh sieve	4.4
Passing 30-mesh sieve, retained on 40-mesh sieve	5.3
Passing 40-mesh sieve, retained on 50-mesh sieve	6.2
Passing 50-mesh sieve, retained on 80-mesh sieve	52.3
Passing 80-mesh sieve, retained on 100-mesh sieve	10.9
Passing 100-mesh sieve, retained on 200-mesh sieve	6.7
Passing 200-mesh sieve	5.9

Per cent of mineral aggregate insoluble in hydrochloric acid..... 97.23

Tests on extracted bitumen

Specific gravity, 25° C	1.100
Penetration, 25° C	0
Softening point (°C)	88.0
Bitumen, soluble in carbon disulphide	98.85
Organic matter insoluble	0.83
Inorganic matter insoluble	0.32
Per cent of bitumen insoluble in 86° B. Naphtha	40.09

Penetration result indicates that consistency of the bitumen is too hard for the material to be satisfactory as a road surfacing material.

3

Baggs, Wyoming

	Per cent of sample
Bitumen extracted	3.3
Passing 10-mesh sieve, retained on 20-mesh sieve	1.4
Passing 20-mesh sieve, retained on 30-mesh sieve	1.4
Passing 30-mesh sieve, retained on 40-mesh sieve	8.5
Passing 40-mesh sieve, retained on 50-mesh sieve	24.7
Passing 50-mesh sieve, retained on 80-mesh sieve	40.3
Passing 80-mesh sieve, retained on 100-mesh sieve	8.0
Passing 100-mesh sieve, retained on 200-mesh sieve	8.6
Passing 200-mesh sieve	3.8

Per cent of mineral aggregate insoluble in hydrochloric acid..... 97.89

Tests on extracted bitumen

Specific gravity, 25°C	1.082
Penetration, 25°C	0
Softening point (°C)	114
Bitumen soluble in carbon disulphide	99.48
Organic matter insoluble	0.47
Inorganic matter insoluble	0.05
Per cent bitumen insoluble in 86° B. naphtha	50.12

Penetration result indicates that consistency of the bitumen is too hard for the material to be satisfactory as a road surfacing material.

#4

Gebo, Wyoming

	Per cent of sample
Bitumen extracted	6.9
Passing 20-mesh sieve, retained on 30-mesh sieve	0.1
Passing 30-mesh sieve, retained on 40-mesh sieve	2.5
Passing 40-mesh sieve, retained on 50-mesh sieve	7.5
Passing 50-mesh sieve, retained on 80-mesh sieve	39.5
Passing 80-mesh sieve, retained on 100-mesh sieve	12.0
Passing 100-mesh sieve, retained on 200-mesh sieve	16.4
Passing 200-mesh sieve	15.1

Per cent of mineral aggregate insoluble in hydrochloric acid.... 98.24

Tests on extracted bitumen

Specific gravity, 25°C	1.038
Penetration, 25° C	100
Ductility, 25° C. (cms)	43
Softening point (°C)	44.2
Bitumen soluble in carbon disulphide	99.44%
Organic matter insoluble	0.32%
Inorganic matter insoluble	0.24%
Per cent bitumen insoluble in 86°B. naphtha	28.40

Above results indicate that this material may prove satisfactory for use in the construction of road wearing surfaces.

#5

Sheridan, Wyoming

	Per cent of Sample
Bitumen extracted	12.3
Passing 40-mesh sieve, retained on 50-mesh sieve.....	1.2
Passing 50-mesh sieve, retained on 80-mesh sieve.....	19.3
Passing 80-mesh sieve, retained on 100-mesh sieve.....	17.9
Passing 100-mesh sieve, retained on 200-mesh sieve.....	41.2
Passing 200-mesh sieve	8.1

Per cent of mineral aggregate insoluble in hydrochloric acid.....98.12

Tests on extracted bitumen

Specific gravity, 25° C.....	1.027
Penetration, 25° C.....	185
Ductility, 25° C. (cms).....	110+
Softening point (°C).....	38
Bitumen soluble in carbon disulphide.....	99.56%
Organic matter insoluble.....	0.21
Inorganic matter insoluble.....	0.23
Per cent bitumen insoluble in 86°B. naphtha.....	20.02

High bitumen content of soft consistency indicates that material would not make a good road surface course.

E. F. Kelley
Chief, Division of Tests