

SHYMOUR CREEK WATERSHED

Hole No. 1.

Description:- Taken from swamp by Prospector's cabin, near

Hole No. 3

Water

Color	Faintly yellow
Turbidity	Distinct
Reaction	Neutral
Ammonia, Free	0.002 parts per 100,000
Ammonia, Albuminoid.	0.026 " " "
Chlorine	0.5 " " "
Nitrates	0.06 " " "
Nitrites	Nil
Copper	None
Zinc	"
Alumina	"
Magnesia	"
Lime	"
Arsenic	"

Bacteriological Sample No. 1:-

Bacteriological Sample No. 1 :

400 Colonies per C.C.

Gas.

Soil :- Sample taken from the first four feet of the hole

Description :- Within 100' of No. 1 there is a brownish clay about 1' or 18" below level of soil. was sunk 7' deep to water.

Crude Suspension - 30 Minutes

Water clear in - 16 hours.

Turbidity	Nil
Reaction	Neutral
Ammonia Free	0.004 parts per 100,000
Ammonia, Alb.	0.027 " " "
Chlorine	0.40 " " "
Nitrates	0.053 " " "
Nitrites	Nil
Copper	None
Zinc	"
Alumina	"
Arsenic	"

Bacteriological Sample No. 2:-

Bacteriological Sample No. 2 :-

5 Colonies per C.C.

Gas.

2.

Hole No. 2.

Description :- Taken from swamp by Prospector's cabin, about 20' from trail.

Water

Color	Faintly yellow
Turbidity	Distinct
Reaction	Neutral
Chlorine	0.33 Parts per 100,000
Ammonia, Free	0.002 " " "
Ammonia, Alb.	0.054 " " "
Nitrates	0.065 " " "
Nitrites	None
Copper	"
Zinc	"
Alumina	"
Arsenic	"

Bacteriological Sample No. 3 :-

1 Colony per C.C.

Gas.

Soil :-

Description :- Sample taken from the first four feet of the hole and consists of a light loam for about 14' from there down to water is a sandy clay - this hole was sunk 7' deep to water.

Course Suspension - 15 minutes

Water clear - 25 "

Reaction	Neutral
Turbidity	None
Chlorine	0.30 parts per 100,000
Ammonia, Free	Trace
Ammonia, Alb.	0.062 " " "
Nitrates	0.068
Nitrites	None
Copper	None
Zinc	None
Alumina	None.

Bacteriological Sample No. 4.

11 Colonies per C. C.

Gas.

(3)

Hole No. 3. (in meadow)

Description:- Hole was sunk about 4' 6". First 15" from surface consisted of light loam. A sample was taken from this portion and marked A, the hole from this down consisted of blue clay and a sample from this portion was marked B.

A Water

Reaction	Neutral	
Chlorine	0.30	per 100,000
Ammonia, Free	Trace	
Ammonia, Alb.	0.098	" "
Nitrates	0.09	" "
Nitrites	None	
Copper	"	
Zinc	"	
Alumina	"	
Arsenic	"	
Sulphates	"	

Crude Suspension - 2 hours.

Water does not clear.

Soil - A - Loam - Peaty nature.

Bacteriological Sample No. 5 :- 500 Colonies per C.C.
+ Gas.

Soil - B

rock flour.
Description - blue clay.

Crude Suspension - 5 hours. - Water does not clear.

Chlorine	0.39	parts per 100,000
Ammonia, Free	Trace	
Ammonia, Alb.	.084	" " "
Nitrates	0.14	" " "
Nitrites	None	
Reaction	Neutral	
Copper	None	
Zinc	"	
Alumina	"	
Arsenic	"	
Sulphates	"	

Bacteriological Sample No. 6 :-

50 Colonies per C.C.

____ Gas.

(4)

DESCRIPTION : Sample taken from a long pond about 10' from Hole No. 3, in Meadow.

Water

Color	Clear			
Turbidity	Nil			
Reaction	Neutral			
Chlorine	0.20	parts per 100,000		
Ammonia, Free	Trace			
Ammonia, Alb.	0.020	"	"	"
Nitrates	0.032	"	"	"
Nitrites	None			
Copper	"			
Zinc	"			
Alumina	"			
Arsenic	"			
Sulphates	"			

Bacteriological Sample No. 7:-

160 Colonies per C.C.

_____ Gas.

Hole No. 3 (Repeat)

Fresh sample taken of Soil B - rock flour.

Rock flour was dried in sun and examined as follows :-

Rock flour was treated for 3 hours over bunsen burner - when cold it crumbled upon the slightest pressure.

Hole No. 4

Situated about 48' from Stake No. 32 at bottom of hill, across
Meadow - Hole is 6' deep.

Water Sample taken from bottom of Hole.

Reaction	Neutral			
Chlorine	0.40	parts per 100,000		
Ammonia, Free	Trace			
Ammonia, Alb.	0.132	" " "		
Nitrates	0.096	" " "		
Nitrites	None			
Copper	"			
Zinc	"			
Alumina	"			
Arsenic	"			
Sulphates	"			

Bacteriological Sample No. 8 :

10,000 Colonies per C.C.
Accidental Contamination?

Soil 4-A

Taken from bottom of Hole - 6' deep, of gravel nature.

Reaction	Neutral			
Chlorine	0.25	parts per 100,000		
Ammonia, Free	Trace			
Ammonia, Alb	0.064	parts per 100,000		
Nitrates	0.098	" " "		
Nitrites	None			
Copper	"			
Alumina	"			
Zinc	"			
Arsenic	"			

Grude Suspension - 5 Minutes.

Water clears -, 4 Hours.

Bacteriological Sample No. 9:

160 Colonies per C.C.

___ Gas.

Soil 4B

Taken about 4'6" from surface - loam nature.

3' light loam

12" dark loam

2' gravel (drain from hill)

Reaction	Neutral			
Chlorine	0.29	parts per 100,000		
Ammonia, Free	Trace			
Ammonia, Alb.	0.041	" " "		
Nitrates	0.100	" " "		
Nitrites	None			
Copper	"			
Zinc	"			
Alumina	"			
Arsenic	"			
Sulphates	"			

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Hole No. 4 (Continued)

Soil 4 B (Cont.)

Crude Suspension - 12 Minutes.
Water clears - 8 Hours.

Bacteriological Sample No. 10 :-

1000 Colonies per C.C.
— Gas.

Hole No. 5

Situated at junction of Boulder Creek and trail - hole 4' 5" deep.
Soil sample taken from bottom.

Reaction	Neutral	
Chlorine	0.24	parts per 100,000
Ammonia, Free	Trace	
Ammonia, Alb.	0.087	" " "
Nitrates	0.05	" " "
Nitrites	Nil	
Copper	"	
Zinc	"	
Arsenic	"	
Alumina	"	
Iron	"	
Sulphates	"	

Crude Suspension - 4 Minutes
Water clears - 10 Hrs.

Bacteriological Sample No. 11 :-

600 Colonies per C. C.
— Gas.

4' light loam
6" sandy clay (No water)

Water

No. 5 A - sample taken from Boulder Creek at trail about 20' from No. 5 Hole :-

Color	Clear
Turbidity	Nil
Reaction	Neutral
Chlorine	0.24 parts per 100,000
Ammonia Free	Trace
Ammonia, Alb.	0.008 " " "
Nitrates	0.05
Nitrites	Nil

Bacteriological Sample No. 12

150 Colonies per C.C.
— Gas.

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Hole No. 6

Situated at junction of Section line and City line - 56 + 22.

Hole 4' 6" deep - no water.

Soil Sample 6 A, taken 18" from surface.

Crude Suspension - 5 Minutes

Water clear - 8 Hours.

Reaction	Neutral
Chlorine	0.26 parts per 100,000
Ammonia, Free	Trace
Ammonia, Alb.	0.084 " " "
Nitrates	0.06 " " "
Nitrites	Nil
Copper	None.

Bacteriological Sample No. 13 :-

40 Colonies per C. C.

___ Gas.

Soil Sample 6 B, taken from bottom of Hole.

6" loam

small boulders
and

4' disintegrated
granite.

Crude Suspension - 3 Minutes.

Water Clear - 4 Hours.

Reaction	Neutral
Chlorine	0.24 parts per 100,000
Ammonia, Free	Trace
Ammonia, Alb.	0.074 " " "
Nitrates	0.05 " " "
Copper	None.

Bacteriological Sample No. 14 :

6 Colonies per C.C.

___ Gas.

(3)

Hole No. 7

Flat - Horse Shoe Bend.

Hole 4' 6" deep.

Sandy loam from surface to bottom of hole.

4' 6" Sandy
Loam.

Water.

Water sample only from Hole.

Color	Very faintly yellow.
Turbidity	faint
Reaction	Neutral
Chlorine	0.26 parts per 100,000
Ammonia, Free	0.002 " " "
Ammonia, Alb.	0.022 " " "
Nitrates	0.08 " " "
Nitrites	Nil.

Bacteriological Sample No. 15 :

240 Colonies per C. C.

— Gas.

Sample No. 8

Water from Stoney Creek, at trail.

Color	Clear
Turbidity	Nil
Reaction	Neutral
Chlorine	0.20 parts per 100,000
Ammonia, Free	Trace.
Ammonia, Alb.	0.005 " " "
Nitrates	0.03 " " "
Nitrites	None.

Bacteriological Sample No. 16 :-

240 Colonies per C. C.

+ Gas.

(9)

Hole No. 9

Situated $\frac{1}{2}$ way between trail and S. E. corner of 1445.

Hole 4' 6" deep.

5' 6" Clay Loam

1' Disintegrated
Granite. Water.

Water Sample only taken from Hole.

Color	Clear
Turbidity	Faint
Reaction	Neutral
Chlorine	0.26 parts per 100,000
Ammonia, Free	Trace
Ammonia, Alb.	0.015 " " "
Nitrates	0.04 " " "
Nitrites	None.

Bacteriological Sample No. 17 :-

80 Colonies per C. C.

___ Gas.

Hole No. 10

Situated 4' from trail at station 110 - about 45' above Creek

Hole 3' deep - all cement rock.

Soil Sample taken from bottom of hole

Grude Suspension - 3 Min.

Water clears - 2 hours.

Reaction	Neutral
Chlorine	0.24 parts per 100,000
Ammonia, Free	0.002 " " "
Ammonia, Alb.	0.076 " " "
Nitrates	0.070 " " "
Nitrites	None
Copper	None.

Bacteriological Sample No. 18 :-

22 Colonies per C.C.

___ Gas.

(10)

Hole No. 11

Situated on Island.

Station 128 West side
" 313 East side.

Hole 4' deep.

3' Sandy
Loam

No boulders
or
rocks.

1' Sandy
Clay No water.

Soil Sample taken from bottom of Hole

Crude Suspension - 3 minutes.

Water does not clear in 18 Hrs.

Reaction	Neutral	parts per 100,000		
Chlorine	0.25			
Ammonia, Free	Trace			
Arsenic, Alb.	0.048	"	"	"
Nitrates	0.05	"	"	"
Nitrites	None			
Copper	"			
Arsenic	"			
Alumina	"			
Zinc	"			
Sulphates	"			

Bacteriological Sample No. 12 :

480 Colonies per C.C.

— Gas.

Hole No. 12

Across Creek - Station 313 + 28

Hole 6' 6" deep.

5" Moal

Creek bottom

6' fine gravel & boulders

Ideal filter bed - no water.

Soil Sample taken from bottom of hole.

Crude Suspension - 2 minutes.

Water clears - 2 hours

(Cont.)

(11)

Hole No. 12 (Continued)

Chlorine	0.25 parts per 100,000
Reaction	Neutral
Ammonia, Free	Trace
Ammonia, Albuminoid	0.032 " " "
Nitrates	0.045
Nitrites	None
Copper	None
Zinc	None
Arsenic	None
Alumina	None
Sulphates	None
Magnesia	None
Lime	None

Bacteriological Sample No. 20 :-

560 Colonies per C.C.
_____ Gas.

Hole No. 13

situation - opposite station 160 - on the flat.

Hole 3' deep.

Loam
3' &
Clay Water.

Water only taken.

Color	Yellowish
Turbidity	Distinct
Reaction	Neutral
Chlorine	0.25 parts per 100,000
Ammonia, Free	0.0015 " " "
Ammonia, Alb	0.094 " " "
Nitrates	0.06 " " "
Nitrites	None.

Hole No. 14

station 171

Hole 18"

18" Loam
Clay
18" &
decay
Vegetable
matter. - Water.

Swampy ground.

(Cont.)

(12)

Hole No. 14 (Continued)

<u>Soil</u> only taken from bottom of hole.	Reaction	Neutral	parts per 100,000		
	Chlorine	0.20			
	Ammonia, Free	Trace.			
	Ammonia, Alb.	0.086	"	"	"
	Nitrates	0.05	"	"	"
	Nitrites	Nil			
	Arsenic	None			
	Zinc	"			
	Alumina	"			
	Copper	"			
	Sulphates	"			
	Iron	In suspension.			

Grate Suspension - 2 Minutes.

Water does not clear in 18 Hours.

Hole No. 15

Station - 173.

Hole 4' deep.

Trench on slope - above flat land.

Soil sample taken from bottom.

15' loam

2' small boulders

Iron stain - heavy (This is the greatest Fe stain of any.)

disintegrated granite. - No water.

Reaction	Neutral	parts per 100,000		
	0.21			
Chlorine	0.21			
Ammonia, Free	None			
Ammonia, Alb.	0.085	"	"	"
Nitrates	0.13	"	"	"
Nitrites	Nil			
Arsenic	None			
Zinc	"			
Copper	"			
Alumina	"			
Sulphates	"			
Iron	In suspension.			

Grate Suspension - 2 Minutes.

Water does not clear in 18 hrs.

(13)

Hole No. 16

Station - 189, on the old blazed line.

Trench in bank - 6' deep.

2' soil - then boulders - under this disintegrated granite and under this clay.

2'	soil	
3'	boulders & disintegrated granite	
1'	clay & granite	(Water just coming)

Soil sample taken from clay bed on bottom of Hole.

Reaction	Neutral	
Chlorine	0.22	parts per 100,000
Ammonia, Free	Nil	
Ammonia, Alb	0.092	" " "
Nitrates	0.04	" " "
Nitrites	Nil	
Copper	None	
Zinc	"	
Arsenic	"	
Alumina	"	
Sulphates	"	
Magnesia	"	
Lime	"	
Iron	In Suspension.	

Grade Suspension - 4 Minutes.

Water does not clear within 19 hours.

Sample No. 17

Station 196 + 83

Water Sample only taken from sluic.

Color	Clear	
Turbidity	Nil	
Reaction	Neutral	
Chlorine	0.23	parts per 100,000
Ammonia, Free	0.002	" " "
Ammonia, Alb.	0.004	" " "
Nitrates	0.05	" " "
Nitrites	Nil.	

(14)

Hole No. 13

Station 206 + 64.

Swampy land.

Hole 2' 6"

Water only taken.

15" Loam & Clay
Decayed
----- Vegetable Matter

River Bottom. (Water rushing in after 15" depth
was reached)

Color	Deep yellowish red
Turbidity	Considerable
Reaction	Neutral.
Chlorine	0.26 parts per 100,000
Ammonia, Free	Trace
Ammonia, Alb.	0.090 " " "
Nitrates	0.08 " " "
Nitrites	None.

Hole No. 19

Station 214 + 08

Hole 4' deep.

Soil only, taken from bottom of hole.

This is the head of the Water System. It will probably not
be flooded.

15" sand & clay

River Bottom.

- (Water.)

Crude Suspension - 2 Minutes.

Water clears - 3 Hours.

(Continued)

(15)

Hole No. 19 (Continued)

Reaction	Neutral			
Chlorine	0.31	parts per 100,000		
Ammonia, Free	None			
Ammonia, Alb.	0.052	"	"	"
Nitrates	0.04	"	"	"
Nitrites	None			
Arsenic	"			
Copper	"			
Zinc	"			
Alumina	"			
Sulphates	"			
Magnesia	"			
Lime	"			

Sample No. 20

Water taken from second Creek above Falls - draining
the West land about 600' North of the Falls.

Color	Clear.			
Turbidity	Nil			
Reaction	Neutral			
Chlorine	0.20	parts per 100,000		
Ammonia, Free	Trace			
Ammonia, Alb.	0.004	"	"	"
Nitrates	0.03	"	"	"
Nitrites	None.			

Hole No. 2 - Repeat

Hole continuing down for 9' 6".

Water sample only, taken from bottom of Hole.

No change in formation.

Temperature

Water - 40°F.

Hole - 43°F.

Reaction	Neutral			
Turbidity	Slight			
Color	Faintly Yellow.			
Chlorine	0.31	parts per 100,000		
Ammonia, Free	0.002	"	"	"
Ammonia, Alb.	0.006	"	"	"
Nitrates	0.03	"	"	"
Nitrites	Nil.			

(16)

Hole No. 81

Situation - about 10' East of Hole No. 8.

Ground - same character.

No samples taken.

Clay impregnated with peaty matter.

Hole No. 82

East side of Creek.

Station 385 + 52 - about 80' from trail.

Soil only, taken from bottom of hole. Hole 3' 6" deep.

(swampy land)

6" Loam

3'

Sandy

Loam

Cement Rock

-No water.

Crude Suspension - 1 Minute

Water clears - 2 Hours.

Reaction	Neutral
Chlorine	.22 parts per 100,000
Ammonia, Free	Trace
Ammonia, Alb.	0.094 " " "
Nitrates	0.05 " " "
Nitrites	Nil.

Bacteriological Sample No. 81 :-

72 Colonies per C.C.

Gas.

Hole No. 83

East side of Creek.

Station 354 + 77 - about 80' from trail.

Soil only, taken from bottom of hole.

Hole 4' deep.

Swampy land.

(Continued)

(17)

Hole No. 22

East side of Creek.

Station 354 + 77 - about 30' from trail.

Soil only, taken from bottom of hole.

Hole 4' deep - Swampy land.

1' dark loam

6" Sand

2' 6" Sandy clay.

Cement Rock - No Water.

Crude Suspension - 1 Minute.

Water clears - 2 Hours.

Reaction	Neutral			
Chlorine	0.32	parts per 100,000		
Ammonia, Free	Trace			
Ammonia, Alb.	0.054	"	"	"
Nitrates	0.05	"	"	"
Nitrites	None.			

Bacteriological Sample No. 22 :-

14 Colonies per C.C.

Gas.

Hole No. 24

East side of Creek, at end of Bridge.

300' above waterfalls.

Soil only, taken from bottom of hole.

Earth - River Clay.

Hole 3' 6".

2' loam

1' 6" small boulders
gravel clay
water just coming.

(Continued)

(19)

Hole No. 24 (Continued)

Crude Suspension - 3 Minutes.

Water does not clear in 18 Hours.

Reaction	Neutral			
Chlorine	0.81	parts per 100,000		
Ammonia, Free	Trace			
Ammonia, Alb.	0.110	"	"	"
Nitrates	0.055	"	"	"
Nitrites	None.			
Arsenic	"			
Copper	"			
Zinc	"			
Alumina	"			
Sulphates	"			
Magnesia	"			
Lime	"			

Bacteriological Sample No. 25 :

680 Colonies per C.C.

— Gas.