

Aug 18/75.

Sample

#6

11

13

70ml 11 + 140ml 6

105ml 11 + 63ml 13

140ml 6 + 42ml 13

70ml 11 + 140ml 6 + 12ml DTB

105ml 11 + 63ml 13 + 18ml DTB

140ml 6 + 42ml 13 + 12ml DTB

42ml 13 + 70ml 11 + 140ml 6

above filtered 13, 11, 6

above unfiltered + 15ml DTB

above filtered

DTB (filtered)

	A		B		C		D		Sample
	0.9% CaO pH	As	1% CaO pH	As	2% CaO pH	As	5% CaO pH	As	
	7.4	46	11.6	12.5	11.9	13.0	12.1	14.8	1
	4.0	74	10.8	3.5	11.0	3.5	12.4	6	2
	6.9	1430	8.7	1130	9.2	740	8.9	970	3
	6.4	46	10.9	16	11.5	6.8	12.1	12	4
	6.0	435	7.0	260	10.8	110	11.6	42	5
	7.2	255	10.2	190	10.9	110	12.1	13.5	6
	6.7	135	10.4	90	10.8	80	12.3	15.4	7
	8.5	515	8.2	490	9.1	360	11.9	120	8
	7.7	405	9.2	325	10.4	208	11.5	102	9
									10
									11
									12
									13
									14

Do 2 sample runs 1 for OHs 2 for zehrs.

Thursday & Friday

all markings in red
10-1 Dilution

5 - 20
10 - 40
20 - 67
40 - 105
80 - 210

OD Readings for samples

1A	140	SA	133	9A	125
B	45	B	86	B	105
C	47	C	41	C	70
D	52	D	130	D	38
2A	200	6A	85		
B	15	B	65		
C	15	C	40		
D	23	D	48		
3A	200	7A	48		
B	265	B	3		
C	200	C	20		
D	246	D	54		
4A	140	8A	153		
B	56	B	147		
C	26	C	114		
D	44	D	44		

dilute 10-1
3A-9

5C - 300

Dile W.

Observations - Aug 19/75

1A - 1B.

1A. clear solution of ^{light} grey tinge plus ppt. fine particulate matter.

1B-1D. - ^{white} gelatinous ppte. plus a white colloidal suspension noticeable but does not affect clearness of solution.

2A - 2D

2A - solution slightly opaque

2B-2D - blue green gelatinous ppte. evolved, settles fairly well, slight colloidal suspension noticed.

3A - 3D

- no ppt noticeable in 3B-D. but mound on bottom is noticed, ~~the~~ mound seems to entrap CaO.

4A - 4D

4A - shows opaqueness, hard to see other side of flask.

4B-D. 4B - has a slightly blue green tinge in a gelatinous ppt formed.

- straight ppt in rest (green-gray) + white gelatinous ppt.

4C - 4D shows better settling qualities than rest & show larger formation (particle size) than rest.

5A - 5D

5A - opaque liquid (brown tinge) (similar to 3A)

5B - opaque liq. with colloidal suspension (liq. yellow)

brown ppt on bottom as in 3A but with a covering of yellow fine particulate

5C-D ppte brown + granular brown ppt with a white gelatinous ppt covering it some white colloidal suspension noticed.

Observations ~~Part~~ Aug 11/75. (13:00 hrs)

6A-6D.

6A - similar to 3A.

6B - fine ppt above regular ppt. solution clear

6C-D - fine gelatinous ppt (white) above brown ppt.
solution shows fine colloidal material

7A - colloidal suspension plus gelatinous ppt. (yellow)

7B - gelatinous ppt (yellow) solution clear.

7C - same as 7B & clear

7D - same as 7C but liquid shows fine ppt in super.

8A-8D.

8A - Fine gelatinous yellow ppt with brown ppt.
solution (yellow-brown) slightly opaque.

8B - (yellow brown) more yellow than 8A plus same
type of ppt formation as in 8A.

8C - solution clear with ~~at~~ small bits of colloidal
suspension.

8D - white gelatinous ppt covering covering brown ppt.
no visible yellow ppt, solution ^{still + by} opaque with
colloidal suspension.

9A-9D

9A - similar to 3A.

9B - similar to 6B.

9C - fine white ppt covering brown ppt.

9D white gelatinous ppt.

0.000

10

PH

PH₂₄

AS

AS₂₄

[illegible]

1A - slight sediment from ^{fine} ~~fine~~
1B - 1D - gelatinous colloidal material (CaO not totally dissolved)
(amount of material equivalent throughout)

2A - colloidal material (heigh in color) & opaque.
2B - large amt of gelatinous ppt. (liquid green & translucent)
with some colloidal material in suspension.
2C - same as 2B but liquid & ppte blue in color
+ amount of ppt is equal.

3A-3D. - all ppt of original solution are same heigh
in color & easily separated. (ppt heigh same throughout)

4A - compared to 1A & 2A. a ppt seems to be formed upon
addition of 1A & 2A, it does not have the colloidal sus-
pension as does 2A. But the ppt ~~upon~~ in 4A becomes
lazier and settles easily (is similar to a flocculent.)
+ suspension.

4B-4D - gelatinous material (ppt) in all but 4D
4D no colloidal suspension is visible

5A-5D - No change in ppt volumes but a very noticeable
increase in colloidal suspension (similar to 2A but darker & predominant
(green) and decrease with the amount of CaO added. (5C-5D does
not have this suspension.

6A-6D - Colloidal suspension in all but heigh in 6A & 6B & white
in 6C & 6D. A lime white ppt is noted in 6C & 6D
& quantity of ppt is large in 6D.

7A - suspension as noted in 4A but ppt is blue green not
not shit brindle brown as in 4A.

7B - compared to 4B ppt finer

7C - " " 4C " "

7D - " " 4D ppt " & colloidal suspension.

8A - 8D ~~compare~~ upon additions of lime the ppt evolved seems to increase at 2x the volume of the other (ie 8A = 28B, 8B = 28C, 8D \approx 2.5 8B)
the colloidal suspension is very light, somewhat white in between (5B-5C.) (also notice some gas bubbles adhering to side in 8B-8D but also noticeable in 5B-5D)

9A - 9D - same as in 8A-8D but volume of ppt in 9D 2x that of 9C whereas ppt from others not noticeable.