

FIG. 2

MAGNETIC CONCENTRATION, BRISTOL ORE, SHIPMENT No. 2

2319 POUNDS TO DRY TEST ←

→ POUNDS TO WET TEST 1904

DRY CONCENTRATION.

CRUDE ORE SIZED.				CONCENTRATES.				TAILINGS.				DUST LOSS.		EFFICIENCY.								
Sample Number	Through Mesh.	Weight and per cent.		Analyses.				Weight and per cent.		Analyses.				Pounds.	Per cent.	Per cent of Iron Saved.	Per cent of Iron Lost.	Units of Crude Per Unit of Concentrate.				
		Pounds.	Per cent.	Iron, per cent.	Insoluble, per cent.	Sulphur, per cent.	Phosphorus, per cent.	Pounds.	Per cent.	Iron, per cent.	Insoluble, per cent.	Sulphur, per cent.	Phosphorus, per cent.						Pounds.	Per cent.		
1	40	866	37.40	56.21	7.65	2.257	0.004	498	57.50	64.22	3.58	0.375	0.0007	342	39.49	44.60	13.01	26	3.01	68.00	32.00	1.68
2	20	303	13.08	52.79	10.34	3.523	0.011	177	58.41	59.31	7.05	0.840	0.0020	115	37.95	43.10	16.32	11	3.64	67.27	32.73	1.67
3	10	525	22.64	47.51	13.63	3.585	0.012	272	51.81	53.00	10.91	1.360	0.0020	247	47.04	41.62	17.55	6	1.15	58.11	41.89	1.92
4	6	625	26.88	49.10	13.75	2.505	0.007	330	52.80	52.41	11.07	1.240	0.0030	291	46.56	45.42	15.68	4	0.64	56.47	43.53	1.89
Totals.....		2,319	100.00	51.87	10.99	2.780	0.007	1,277	55.06	58.10	7.63	0.870	0.0020	995	42.91	44.92	15.29	47	2.03	59.26	40.74	1.89

RECAPITULATION FOR TOTALS.			
Pounds iron in crude, 1,202.86—			
" concentrate	741.94	Per cent saved in concentrate	61.68
" tailings	446.95	" lost in tailings	37.15
" dust	13.97	" lost in dust	1.17
Totals	1,202.86		100.00

Units of crude required per unit of concentrate, 1.81.

WET CONCENTRATION.

CRUDE ORE.				CONCENTRATES.				TAILINGS.				SLIME LOSS.		EFFICIENCY.								
Sample Number.	Ground to Mesh.	Weight in Pounds.		Analyses.				Weight and per cent.		Analyses.				Pounds.	Per cent.	Per cent of Iron Saved.	Per cent of Iron Lost.	Units of Crude Per Unit of Concentrate.				
		Pounds.	Per cent.	Iron, per cent.	Insoluble, per cent.	Sulphur, per cent.	Phosphorus, per cent.	Pounds.	Per cent.	Iron, per cent.	Insoluble, per cent.	Sulphur, per cent.	Phosphorus, per cent.						Pounds.	Per cent.		
1	10	664	51.83	9.97	2.79	0.008	472	71.08	56.92	8.40	1.12	0.0007	172	25.90	37.41	18.50	20	3.02	81.34	18.66	1.35	
2	20	622	51.83	9.97	2.79	0.008	392	63.02	59.99	6.95	0.74	0.0007	199	31.99	38.62	19.39	31	4.99	71.45	28.55	1.62	
3	40	618	51.83	9.97	2.79	0.008	346	55.98	61.48	5.96	0.42	0.0003	229	37.05	38.43	20.07	43	6.97	69.36	30.64	1.71	
Totals.....																						

RECAPITULATION FOR SAMPLE No. 3.			
Pounds iron in crude, 320.31—			
" concentrate	213.92	Per cent saved in concentrate	66.78
" tailings	88.00	" lost in tailings	27.47
" slime	18.39	" lost in slime	5.75
Totals	320.31		100.00

Units of crude required per unit of concentrate, 1.71.