XVI.—*Some Account of several Sections through the Plastic Clay formation in the vicinity of London.* By Mr. WILLIAM GRAVATT, F.R.S., M.Inst.C.E.

TRING HILL, HERTS.

A boring for water for the Grand Junction Canal commenced at 25 feet below the summit level of the hill near Marshcroft Bridge.

Chalk . . .	20 feet.	
Hard blue clay .	30	
Blue stone . .	4.	At 54 feet the water rose to the top, and ran over 1300 cubic feet in 24 hours.
Hard blue clay .	47	
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		101 feet—no more water than at 54 feet.

The boring discontinued in Nov. 1827.

A second boring in the same hill commenced 20 feet from the summit level.

Chalk . . .	30 feet.	
Hard blue clay .	34	
Blue stone . .	4.	Water rose up. The stone required punching before using the auger.
Blue clay . .	82	{ Strata of indurated clay at about every 4 feet, so hard as to require punching from 2 to 10 inches.
Black grit . .	10	
Blue clay . .	108	
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268 feet. Boring discontinued—no more water than at first.
These two borings cost £145, and were 3 months in hand.

NORWOOD, NEAR STANDWELL.

A well 4 feet diameter sunk and bricked 280 feet through blue clay, into sand; the instant the sand was reached, the water rushed up to the top so fast as to endanger the workmen; it now stands within 8 feet of the surface of the canal, which is 86 feet above Trinity high water-mark.

BORING AT BRENTFORD, SIX MILES FROM LONDON.

Brick earth . . .	9 feet.	
Sandy gravel . .	7	
Loam . . .	5	varies from 1 to 9 feet.
Sand and gravel .	4	varies from 2 to 8. Contains water.
Blue clay . . .	200	
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225 feet. Boring discontinued—still in clay.

WOOLWICH SANDPITS.

Alluvium of various depths.

Rolled flints with sand	12 feet.
Clay, striped brown and red, a few shells	6 water, merely drops.
Blue and brown clay, many shells	9
Iron shot sand, with ocherous lumps	9
Greenish sand, <i>clean</i>	8
Greenish sand with flint pebbles	1
Light ash-coloured sand, perfectly clean	35
Green sand, with green chalk	1
Chalk	unknown.

PLUMSTEAD COMMON.

Shafts for Chalk.

No. I. Alluvial gravel, and pure ash-coloured sand	120 feet.
Chalk penetrated to	24

No water at 144

No. II. Alluvial Gravel	36
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Stopped by the water.

No. III. At a small distance from this, stopped again by water at the same depth.

N.B. These three shafts were in the same field.

BOSTON HEATH, NEAR WOOLWICH.

A well sunk for water.

Gravel	65 feet.
Sandy beds	65
Chalk	70
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	200

The water stands only 5 feet deep in this well; a trifling supply of water was found in the gravel.

LEWISHAM LOAM PIT HILL.

Alluvium various.

Striped sand, yellow, fine, and iron shot	10 feet.
Striped loam, and plastic clay, with thin seams of coaly matter . .	10
Yellow sand	3
Lead-coloured clay, with casts of leaves	2
Brownish clay with cytherea	6
Three thin beds of clay, the upper and lower with cytherea, and the middle with oysters	3
Loam and sand	4
Iron shot sand, with flint pebbles	12
Coarse green sand	5
Clean ash coloured sand	35
Green sand	1

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Chalk with nodules of flint unknown.

REDRIFF DRIFT SHAFT.

	Ft.	In.
Vegetable mould	6	9
Brown clay	0	9
Gravel with water	26	8
Blue clay	3	0
Loam	5	1
Blue clay, with bivalve shells	3	9
Gravel and calcareous rock	7	6
Light blue soil with pyrites	4	6
Green sand	1	9
Leafy clay	8	4
	68	1

A pipe sunk by Mr. Turner 95 feet deep, near Bermondsey new church:—when they reached 80 feet, the rod sunk down 15 feet at once; after pumping out several tons of green mud, the water rose to within 25 feet of the top; it rises and falls about three feet with the tide; the water is quite clear and tasteless. At a place not 500 yards from this, they sunk a pipe 190 feet with very little success, the water being out of reach of a pump, and appearing bad.