```
HEADING
SIMS BAYOU ANALYSIS OF SLOPE AT STATION 935+00
1 ON 3 SLOPE WITH 20-FOOT WIDE BERM AT ELEVATON 38.5 FEET
ASSSUME WATER TABLE 33.5 IN MEDIUM DENSE SILT LAYER
PROFILE LINES
1 1 STIFF CLAY CH
  82 47.5
  88 49.5
  200 49.5

2 2 V/STIFF CLAY CH, SLS
  25 35.5
  34 38.5
  54 38.5
  82 47.5
  200 47.5

3 3 V/STIFF CLAY CL
  19 33.5
  25 35.5
  200 35.5

4 4 VERY STIFF CLAY CH
  -100 30.5
  10 30.5
  19 33.5
  200 33.5

5 5 VERY STIFF CLAY CH, SLS
  -100 29.5
  200 29.5


MATERIAL PROPERTY
1 STIFF CLAY CH
  120 = UNIT WEIGHT
  CONVENTIONAL SHEAR STRENGTH
  0 23
PIEZOMETRIC LINE
  1
2 STIFF CLAY CH, SLS
  121 = UNIT WEIGHT
  CONVENTIONAL SHEAR STRENGTH
  100 13
PIEZOMETRIC LINE
  1
3 V/STIFF CLAY CL
  120 = UNIT WEIGHT
  CONVENTIONAL SHEAR
  0 29
PIEZOMETRIC LINE DATA
  1
4 MEDIUM DENSE SILT ML
  120 = UNIT WEIGHT
  CONVENTIONAL SHEAR
  0 30
PIEZOMETER LINE DATA
  1
5 VERY STIFF CLAY CH, SLS
  119 = UNIT WEIGHT
  CONVENTIONAL SHEAR
```

SIMS 935+
X = 66
Y = 69
R = 32.8
F.S. = 1.55

```
  100 13
PIEZOMETRIC LINE DATA
  1

PIEZOMETRIC LINE DATA
  1 63 WATER TABLE
  -100 30.5
  10 30.5
  11.5 31
  80 33.5
  200 33.5


SURFACE PRESSURES
  -100 30.5 31 0
  10 30.5 31 0
  11.5 31 0 0

ANALYSIS/COMPUTATION
CIRCLE SEARCH
  64 71 1 30
POINT
  55 38.5
CRACK
  1
PROCEDURE
SPENCERS

PLOT
COMPUTE
```

HEADING
SIMS BAYOU ANALYSIS OF SLOPE AT STATION 935+00
1 ON 3 SLOPE WITH 20-FOOT WIDE BERM AT ELEVATON 38.5 FEET
ASSSUME WATER TABLE 33.5 IN MEDIUM DENSE SILT LAYER
PROFILE LINES
1 1 STIFF CLAY CH
  82 47.5
  88 49.5
  200 49.5

SIMS 935+
X = 37, Y = 99, R = 75.7
F.S. = 1.57

2 2 V/STIFF CLAY CH, SLS
  25 35.5
  34 38.5
  54 38.5
  82 47.5
  200 47.5

3 3 V/STIFF CLAY CL
  19 33.5
  25 35.5
  200 35.5

4 4 VERY STIFF CLAY CH
  -100 30.5
  10 30.5
  19 33.5
  200 33.5

5 5 VERY STIFF CLAY CH, SLS
  -100 29.5
  200 29.5

MATERIAL PROPERTY
1 STIFF CLAY CH
  120 = UNIT WEIGHT
  CONVENTIONAL SHEAR STRENGTH
  0 23
PIEZOMETRIC LINE
  1
2 STIFF CLAY CH, SLS
  121 = UNIT WEIGHT
  CONVENTIONAL SHEAR STRENGTH
  100 13
PIEZOMETRIC LINE
  1
3 V/STIFF CLAY CL
  120 = UNIT WEIGHT
  CONVENTIONAL SHEAR
  0 29
PIEZOMETRIC LINE DATA
  1
4 MEDIUM DENSE SILT ML
  120 = UNIT WEIGHT
  CONVENTIONAL SHEAR
  0 30
PIEZOMETER LINE DATA
  1
5 VERY STIFF CLAY CH, SLS
  119 = UNIT WEIGHT
  CONVENTIONAL SHEAR

```
  100 13
PIEZOMETRIC LINE DATA
  1

PIEZOMETRIC LINE DATA
  1 63 WATER TABLE
  -100 30.5
  10 30.5
  11.5 31
  80 33.5
  200 33.5


SURFACE PRESSURES
  -100 30.5 31 0
  10 30.5 31 0
  11.5 31 0 0

ANALYSIS/COMPUTATION
CIRCLE SEARCH
  39 84 1 20
POINT
  10 30.5
CRACK
  1
PROCEDURE
SPENCERS

PLOT
COMPUTE
```

```
HEADING
SIMS BAYOU ANALYSIS OF SLOPE AT STATION 935+00
1 ON 3 SLOPE WITH 20-FOOT WIDE BERM AT ELEVATON 38.5 FEET
ASSSUME WATER TABLE 33.5 IN MEDIUM DENSE SILT LAYER
PROFILE LINES
1 1 V/STIFF CLAY CH, SLS
  25 35.5
  34 38.5
  200 38.5

2 2 V/STIFF CLAY CL
  19 33.5
  25 35.5
  200 35.5

3 3 VERY STIFF CLAY CH
  -100 30.5
  10 30.5
  19 33.5
  200 33.5

4 4 VERY STIFF CLAY CH, SLS
  -100 29.5
  200 29.5


MATERIAL PROPERTYTIFF CLAY CH
1 STIFF CLAY CH, SLS
  121 = UNIT WEIGHT
  CONVENTIONAL SHEAR STRENGTH
  100 13
PIEZOMETRIC LINE
  1
2 V/STIFF CLAY CL
  120 = UNIT WEIGHT
  CONVENTIONAL SHEAR
  0 29
PIEZOMETRIC LINE DATA
  1
3 MEDIUM DENSE SILT ML
  120 = UNIT WEIGHT
  CONVENTIONAL SHEAR
  0 30
PIEZOMETER LINE DATA
  1
4 VERY STIFF CLAY CH, SLS
  119 = UNIT WEIGHT
  CONVENTIONAL SHEAR
  100 13
PIEZOMETRIC LINE DATA
  1

PIEZOMETRIC LINE DATA
  1 63 WATER TABLE
  -100 30.5
  10 30.5
  11.5 31
  80 33.5
  200 33.5
```

SIMS 3356
X = 19
Y = 46
R = 20.4
F.S. = 1.615

```
SURFACE PRESSURES
  -100 30.5 31 0
  10 30.5 31 0
  11.5 31 0 0

ANALYSIS/COMPUTATION
CIRCLE SEARCH
  20 46 1 25
POINT
  10 30.5
CRACK
  1
PROCEDURE
SPENCERS

PLOT
COMPUTE
```

Top Bor. EL. 53.8

Stn: 93+500
INV EL. 33.72

El = 53.8
Bolt El = 120.0

Project: Sims Bayou
Houston, Texas
Contract No. DACW64-95-D-0007 Delivery Order No. 0005

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 96-2

S #	Depth (ft)	P P (tsf)	SPT Blows per Foot	Visual Classification	U S C	Mc (%)	Dry Unit Wt (pcf)	Wet Unit Wt (pcf)	L L (%)	PL (%)	Mechanical Analysis % Passing #4	#10	#40	#100	#200	Torvane Shear Strength (tsf)	q u (tsf)
1	0 - 2	1.50		Clay,Stiff,Gray	C H	22.6											
2	2 - 4	1.75		Clay,w/blocky structure,Slickensided,Stiff,Gray	C H	30.1	88.0	114.5	67.0	25.0							
3	4 - 6	1.50		Clay,w/blocky structure,Slickensided,Stiff,Gray	C H	30	91		88	17							
4	6 - 8	2.50		Clay,w/calcareous&ferrous nodules,Slickensided, Very stiff,Gray & Reddish brown	C H	27	94		78	19							
5	8 - 10	2.50		Clay,w/calcareous nodules&ferrous stains, Slickensided,Very stiff,Gray & Reddish brown	C H	28.9	94.3	121.6	75.0	29.0							
6	10 - 12	2.50		Clay,w/calcareous nodules&ferrous stains, Slickensided,Very stiff,Gray & Reddish brown	C H	27.4											
7	12 - 14	2.25		Clay,w/calcNod&Fe st,Slickensided,Very stiff, Red	C H	29.4			72.0	26.0							
8	14 - 16	2.00		Clay,w/calca nod ferrous stains&sand seams, Very stiff,Red	C H	23.8	97.2	120.3	50.0	21.0	99.9	98.7	97.7	97.0	96.7		2.02
9	16 - 18			Sandy Silt,w/Clay seams,Medium dense,Red	M L						100.0	100.0	97.9	97.5	97.4		
10	18-19.5		11	Sandy Silt,w/Clay seams,Medium dense,Red	M L												
11	20 - 22	4.50+		Clay,w/Ferrous stains,Slickensided,Hard,Red	C H	23.6											
12	22 - 24	3.50		Clay,w/ferrous stains,Slickensided,Very stiff,Red	C H	24.6	95.4	118.9	62.0	25.0	100.0	100.0	100.0	100.0	99.0		
13	24 - 26	3.75		Clay,w/ferrous stains,Slickensided,Very stiff,Red	C H	30.3											
14	26 - 28	3.50		Clay,w/ferrous stains,Slickensided,Very stiff,Red	C H	30.3											
15	28 - 30	3.50		Clay,w/ferrous stains,Slickensided,Very stiff,Red	C H	27.9	90.8	116.2	81.0	32.0							
16	30 - 32	3.25		Clay,w/ferrous stains,Slickensided,Very stiff,Red	C H	27.8											
17	32 - 34	3.50		Clay,w/ferrous stains,Slickensided,Very stiff,Red	C H	29.7											
18	34 - 36	3.50		Clay,w/ferrous stains,Slickensided,Very stiff,Red	C H	28.8	90.5	116.5	77.0	29.0							
19	36 - 38	3.50		Clay,w/ferrous stains,Slickensided,Very stiff,Red	C H	31.2											
20	38 - 40	3.50		Clay,w/Organic material & ferrous stains, Slickensided,Very stiff,Red	C H	28.5											

935-100

S # : Sample Number, P P : Pocket Penetrometer Reading, U S C : Unified Soil Classifcation, M c : Moisture Content
q u : Uncogined Compressive Strength, W O H : Weight of hammer, W O P : Weight of Pipe

Project: Sims Bayou
Houston, Texas
Contract No. DACW64-95-D-0007 Delivery Order No. 0005

SUMMARY OF LABORATORY TEST RESULTS

Boring No. 96-2

S #	Depth (ft)	P P (tsf)	SPT Blows per Foot	Visual Classification	U S C	Mc (%)	Dry Unit Wt (pcf)	Wet Unit Wt (pcf)	L L (%)	PL (%)	Mechanical Analysis % Passing					Torvane Shear Strength (tsf)	q u (tsf)
											#4	#10	#40	#100	#200		
21	40-42	3.50		Clay,w/ferrous stains,Slickensided,Very stiff,Red	C H	30.7											

S # : Sample Number, P P : Pocket Penetrometer Reading, U S C : Unified Soil Classifcation, M c : Moisture Content
q u : Uncogined Compressive Strength, W O H : Weight of hammer, W O P : Weight of Pipe