

# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
 Casing Elevation:  $2794.5 \text{ feet} = 851.39 \text{ m}$   
 Azimuth of X-Axis: East  
 Azimuth of Y-Axis: North

Reference Phone: ITD  
 X = 407478.16 E  
 Y = 684402.67 N

Offset: 4.0m  
 Azimuth: 0  
 Elev.: 851.16 = 4.0m  
 X = 0  
 Y = 4.0m

Channel Configuration:  
 Borehole Phone  
 V=Channel 1  
 R=Channel 2  
 T=Channel 3

Reference Polarization:  
 V=Channel 4  
 R=Channel 5  
 T=Channel 6

Reference Polarization:  
 V 0 R 0 T 0  
 Azi.(deg.) 0 Vert.(deg.) 0  
 V 0 R 0 T 0  
 Azi.(deg.) 270 Vert.(deg.) 90

Date: 28 July 94 Location: Diversion Dam / New York Canal RDH(A) - 2  
 High Cut 1000 ft Low Cut 512 Sample Int. 0.002 Number of Samples 2500

Shot		Borehole Geophone		65 (5.13 + 851.39) Source				65 = 851.26 Source Polarization		
Rec	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
1	<del>NYC00001</del>	24.0m	851.76	-(depth + 37)	7		0	1.60	90	90
2	<del>NYC00002</del>	24.0m		-(851.39 - depth)			0	1.60	270	90
3	<del>NYC00003</del>	23.5m					0	1.60	90	90
4	<del>NYC00004</del>	23.5m					0	1.60	270	90
5	<del>NYC00005</del>	23.0m					0	1.60	90	90
6	<del>NYC00006</del>	23.0					0	1.60	270	90
7	<del>NYC00007</del>	22.5					0	1.60	90	90
8	<del>NYC00008</del>	22.5					0	1.60	270	90
9	<del>NYC00009</del>	22.0					0	1.60	90	90
10	<del>NYC00010</del>	22.0					0	1.60	270	90

Note: Add 0.37 meters to recorded depth to reference depth to low springs.

## BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
Casing Elevation: 851.76 0.5m  
Azimuth of X-Axis 90°  
Azimuth of Y-Axis 0° North

above 4

Reference Phone: \_\_\_\_\_

Offset \_\_\_\_\_

Azimuth \_\_\_\_\_

Elev. 6 - 1h

X = 0

Y = 4.0

Channel	Borehole Phone
Configuration:	V=Channel 1
	R=Channel 2
	T=Channel 3

Borehole	Phone	Reference	Phone
V=Channel	<u>1</u>	V=Channel	<u>4</u>
R=Channel	<u>2</u>	R=Channel	<u>5</u>
T=Channel	<u>3</u>	T=Channel	<u>6</u>

Reference Polarization:	Azi.(deg.)	Vert.(deg.)
V	0	0
R	0	90
T	270	90

Date: 28 July Location: Div Dam / NY Canal HOLE RDHA L2  
High Cut 1000 HZ Low Cut 813 Sample Int. .0002

Number of Samples 2500

Shot		Borehole Geophone			Source				Source Polarization	
Rec	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
11	N7C00011	21.5					0	1.60	90	90
12	N7C00012	21.5					0	1.60	270	90
13	N7C00013	21.0					0	1.60	90	90
14	N7C00014	21.0					0	1.60	270	90
15	N7C00015	20.5					0	1.60	90	90
16	N7C00016	20.5					0	1.60	270	90
17	N7C00017	20.0					0	1.60	90	90
18	N7C00018	20.0					0	1.60	270	90
19	N7C00019	19.5					0	1.60	90	90
20	N7C00020	19.5					0	1.60	270	90

# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
 Casing Elevation: 851.76 0.5m above  
 Azimuth of X-Axis 90°  
 Azimuth of Y-Axis 0° = NORTH

Reference Phone: Offset \_\_\_\_\_  
 Azimuth \_\_\_\_\_  
 Elev. 851.76  
 X = 0  
 Y = 4.0

Channel Configuration:  
 Borehole Phone  
 V=Channel 1  
 R=Channel 2  
 T=Channel 3

Reference Polarization:  
 V \_\_\_\_\_  
 R \_\_\_\_\_  
 T \_\_\_\_\_

Date: 28 July Location: Div Dam / N.Y. Canal (RDHGA)-2  
 High Cut 1000 NZ Low Cut 817 Sample Int. 0.002 Number of Samples 2500

Shot		Borehole Geophone		Source				Source Polarization	
Rec	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Vertical
21	N7C00021	19.0					0	1.6	90
22	N7C00022	19.0					0	1.6	90
23	N7C00023	18.5					0	1.6	90
24	N7C00024	18.5					0	1.6	90
25	N7C00025	18.0					0	1.6	90
26	N7C00026	18.0					0	1.6	90
27	N7C00027	17.5					0	1.6	90
28	N7C00028	17.5					0	1.6	90
29	N7C00029	17.0					0	1.6	90
30	N7C00030	17.0					0	1.6	90

23

# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole

Casing Elevation: 851.76 0.5m above G

Azimuth of X-Axis 90°

Azimuth of Y-Axis 0° = NORTH

Reference Phone: Offset

Azimuth

Elev. 8-0.1m

X= 0

Y= 4.0m

Channel

Borehole Phone

Reference Phone

Configuration:

V=Channel 1

V=Channel 4

R=Channel 2

R=Channel 5

T=Channel 3

T=Channel 6

Reference Polarization: Azi.(deg.)

V 0

R 0

T 270

Vert.(deg.)

0

90

90

Date: 28 July Location: D.V. Dam / N.Y. Canal <sup>Hole</sup> RDH(A)-2

High Cut 1000 NF Low Cut 842 Sample Int. 0.002 Number of Samples 2500

Shot		Borehole Geophone		Source			Source Polarization		
Rec	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Vertical
31	N\CG0031	16.5					0	1.60	90
32	N\CG0032	16.5					0	1.60	90
33	N\CG0033	16.0					0	1.60	90
34	N\CG0034	16.0					0	1.60	90
35	N\CG0035	15.5					0	1.60	90
36	N\CG0036	15.5					0	1.60	90
37	N\CG0037	15.0					0	1.60	90
38	N\CG0038	15.0					0	1.60	90
39	N\CG0039	14.5					0	1.60	90
40	N\CG0040	14.5					0	1.60	90

P(4)

# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
 Casing Elevation: 851.76 0.5m above  
 Azimuth of X-Axis: 90°  
 Azimuth of Y-Axis: 0° = North

Reference Phone: Offset \_\_\_\_\_  
 Azimuth \_\_\_\_\_  
 Elev. 6-0.1m  
 X= 0  
 Y= 4.0m

Channel Configuration:  
 Borehole Phone  
 V=Channel 1  
 R=Channel 2  
 T=Channel 3

Reference Polarization:  
 V=Channel 4  
 R=Channel 5  
 T=Channel 6

Date: 28 July Location: Div. Dam / N.Y. canal Hole R01HA1-2  
 High Cut 1000 147 Low Cut 814 Sample Int. 0.002 Number of Samples 2500

Shot		Borehole Geophone		Source			Source Polarization		
Rec	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Vertical
41	NXC0041	14.0					0	1.60	90
42	NXC0042	14.0					0	1.60	90
43	NXC0043	13.5					0	1.60	90
44	NXC0044	13.5					0	1.60	90
45	NXC0045	13.0					0	1.60	90
46	NXC0046	13.0					0	1.60	90
47	NXC0047	12.5					0	1.60	90
48	NXC0048	12.5					0	1.60	90
49	NXC0049	12.0					0	1.60	90
50	NXC0050	12.0					0	1.60	90

25

# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole

Casing Elevation: 851.76 0.5m above ℓ

Azimuth of X-Axis 90°

Azimuth of Y-Axis 0° = North

Reference Phone: Offset

Azimuth

Elev. 3-10m

X= 0

Y= 4.0

Channel

Borehole Phone

Configuration:

V=Channel 1

R=Channel 2

T=Channel 3

Reference Phone

V=Channel 4

R=Channel 5

T=Channel 6

Reference Polarization: Azi.(deg.)

V 0

R 0

T 270

Vert.(deg.)

0

90

90

Date: 28 July Location: DIV. Dam / N.Y. Canal RD 100 2

High Cut 100M2 Low Cut 8M2 Sample Int. deg 2 Number of Samples 2500

Shot			Borehole Geophone		Source					Source Polarization	
Rec	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical	
51	N7C00051	11.5					0	1.60	90	90	
52	N7C00052	11.5					0	1.60	270	90	
53	N7C00053	11.0					0	1.60	90	90	
54	N7C00054	11.0					0	1.60	270	90	
55	N7C00055	10.5					0	1.60	90	90	
56	N7C00056	10.5					0	1.60	270	90	
57	N7C00057	10.0					0	1.60	90	90	
58	N7C00058	10.0					0	1.60	270	90	
59	N7C00059	9.5					0	1.60	90	90	
60	N7C00060	9.5					0	1.60	270	90	

(J-6)

# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole

Casing Elevation: 851.76 0.5m above

Azimuth of X-Axis 90°

Azimuth of Y-Axis 0° NORTH

Reference Phone: Offset

Azimuth

Elev. 6-0.1m

X= 0

Y= 4.0

Channel

Borehole Phone

Reference Phone

Configuration:

V=Channel 1

V=Channel 4

R=Channel 2

R=Channel 5

T=Channel 3

T=Channel 6

Reference Polarization: Azi.(deg.)

V 0

R 0

T 270

Vert.(deg.)

0

90

90

Date: 28 July

Location: Qu. Dom / NY. canal RDH(1)-2

High Cut 1000 NZ Low Cut 817 Sample Int. 1000 Number of Samples 2500

Shot		Borehole Geophone		Source			Source Polarization		
Rec	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Vertical
61	NYC00061	9.0					0	1.60	90
62	NYC00062	9.0					0	1.60	90
63	NYC00063	8.5					0	1.60	90
64	NYC00064	8.5					0	1.60	90
65	NYC00065	8.0					0	1.60	90
66	NYC00066	8.0					0	1.60	90
67	NYC00067	7.5					0	1.60	90
68	NYC00068	7.5					0	1.60	90
69	NYC00069	7.0					0	1.60	90
70	NYC00070	7.0					0	1.60	90

R(7)

# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
 Casing Elevation: 851.76 0.8 m above CL  
 Azimuth of X-Axis: 90°  
 Azimuth of Y-Axis: 0° < NORTH

Reference Phone: Offset \_\_\_\_\_  
 Azimuth \_\_\_\_\_  
 Elev. 6-0.1m  
 X= 0  
 Y= 4.0

Channel Configuration:  
 Borehole Phone  
 V=Channel 1  
 R=Channel 2  
 T=Channel 3

Reference Polarization:  
 V 0  
 R 0  
 T 270

Azi.(deg.)  
0  
90  
90

Date: 28 July Location: Div. Dam / NY Canal RDH(A)-2  
 High Cut 1000 ft Low Cut 842 Sample Int. .0002 Number of Samples 2500

Shot		Borehole Geophone			Source			Source Polarization	
Rec	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Vertical
71	NYC00071	6.5					0	1.60	90
72	NYC00072	6.5					0	1.60	90
73	NYC00073	6.0					0	1.60	90
74	NYC00074	6.0					0	1.60	90
75	NYC00075	5.5					0	1.60	90
76	NYC00076	5.5					0	1.60	90
77	NYC00077	5.0					0	1.60	90
78	NYC00078	5.0					0	1.60	90
79	NYC00079	4.5					0	1.60	90
80	NYC00080	4.5					0	1.60	90

BSU



# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole  
 Casing Elevation: 851.76 0.5m above ℓ  
 Azimuth of X-Axis 90°  
 Azimuth of Y-Axis 0° = North

Reference Phone: Offset \_\_\_\_\_  
 Azimuth \_\_\_\_\_  
 Elev. 8-0.1m  
 X= 0  
 Y= 4.0

Channel Configuration:  
 Borehole Phone  
 V=Channel 1  
 R=Channel 2  
 T=Channel 3  
 Reference Phone  
 V=Channel 4  
 R=Channel 5  
 T=Channel 6

Reference Polarization:  
 V 0  
 R 0  
 T 270  
 Azl.(deg.)  
 V 0  
 R 0  
 T 270  
 Vert.(deg.)  
 V 0  
 R 90  
 T 90

Date: 28 July Location: D.V. Dam / N.Y. Canal RDH(A)-2  
 High Cut 1000 Hz Low Cut 8 Hz Sample Int. .0002 Number of Samples 2500

Shot		Borehole Geophone		Source					Source Polarization	
Rec	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical
81	NXC0081	4.0					0	1.60	90	90
82	NXC0082	4.0					0	1.60	270	90
83	NXC0083	3.5					0	1.60	90	90
84	NXC0084	3.5					0	1.60	270	90
85	NXC0085	3.0					0	1.60	90	90
86	NXC0086	3.0					0	1.60	270	90
87	NXC0087	2.5					0	1.60	50	90
88	NXC0088	2.5					0	1.60	270	90
89	NXC0089	2.0					0	1.60	90	90
90	NXC0090	2.0					0	1.60	270	90

# BSU GEOPHYSICS VSP OBSERVER'S LOG

Coordinate System Origin at Borehole

Casing Elevation: 851.76 0.5m above 0

Azimuth of X-Axis 90

Azimuth of Y-Axis 0° = North

Reference Phone: Offset

Azimuth

Elev. 0 -0.1m

X= 0

Y= 4.0

Channel

Borehole Phone

V=Channel 1

R=Channel 2

T=Channel 3

Reference Phone

V=Channel 4

R=Channel 5

T=Channel 6

Reference Polarization: Azi.(deg.)

V 0

R 0

T 270

Vert.(deg.)

0

90

90

Date: 28 JULY

Location: Div. DAM/N.Y. Canal

High Cut 1000 17 Low Cut 817 Sample Int. .0002

Number of Samples 2500

Shot			Borehole Geophone		Source					Source Polarization	
Rec	File	Depth	Elev.	Offset	Azimuth	Elev.	X	Y	Azimuth	Vertical	
91	NXC00091	1.50					0	1.60	90	90	
92	NXC00092	1.50					0	1.60	270	90	
93	NXC00093	1.00					0	1.60	90	90	
94	NXC00094	1.00					0	1.60	270	90	
95	NXC00095	0.50					0	1.60	90	90	
96	NXC00096	0.50					0	1.60	270	90	
97	NXC00097	0.00					0	1.60	90	90	
98	NXC00098	0.00					0	1.60	270	90	

out of hole  
JUN  
1960

09(10)

# DOWN HOLE GEOPHONE FIELD CHECKLIST

New York  
Canal

DATE:

ODOMETER

START: 54595

FINISH: 54629

## ITEMS AT GEOSCIENCES

ITEM	OUT	IN	COMMENT
SWC TOOL	✓	✓	
REF PHONE AND CABLES	✓	✓	
BISON	✓	✓	
TAPE MEASURE (50M)	✓	✓	
PULLEY AND WINCH ASSEM.	✓	✓	
DUMMY SWC TOOL	✓	✓	
SLEDGE HAMMER	✓	✓	
COMPASS		✓	
ROCK HAMMER	✓	✓	
ROPE	✓	✓	
WD-40	✓	✓	
OBSERVER SHEETS/ MAPS	✓	✓	
GAS CARD/ KEYS	✓	✓	
GLOVES	✓	✓	

## ITEMS AT LINCOLN STREET

ITEM	OUT	IN	COMMENT
BISON CABLE BOX	✓	✓	
BISON TOOL BOX	✓	✓	
TOOL BOX	✓	✓	
TRIGGER CORD	✓	✓	
TRIPOD HEAD	✓	✓	
BATTERIES (2)	✓✓	✓✓	
LOCATED IN GARAGE			
TRIPOD LEGS	✓✓	✓✓	
RAIL ROAD TIE	✓	✓✓	
SHOVEL	✓	✓	
PICK	✓	✓	
2 FT IRON ROD	✓	✓✓	