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file. hw. 828044. 1990-6-6. state-st-rt-hwp-  
tmed-lab analysis. P&F

Monroe County



THOMAS R. FREY  
COUNTY EXECUTIVE

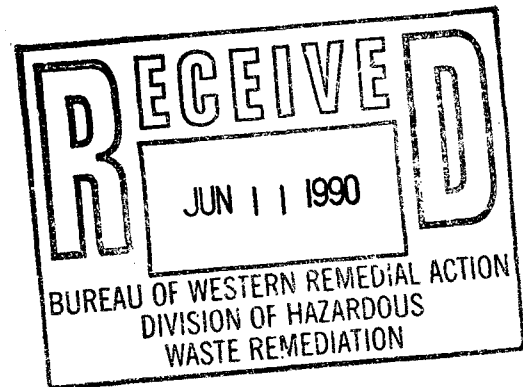
W MIZERAK

JOHN M. DAVIS, P.E.  
DIRECTOR  
716 • 274-7630

Department of Engineering  
350 East Henrietta Road • Rochester, N.Y. 14620

June 6, 1990

Mr. George Harris  
Chief, Remedial Action Section C  
Division of Hazardous Waste Remediation  
New York State Department of  
Environmental Conservation  
Room 222  
50 Wolf Road  
Albany, New York 12233-7010



RE: STATE - MT. HOPE TUNNEL  
C-36-745-10  
ROCHESTER PURE WATERS DISTRICT

Data from the analysis of air, liquid, soil and muck samples for the period from May 21, 1990 to May 25, 1990 are enclosed for your information and use. Mining of the tunnel was completed on May 24, 1990 at 3:09 p.m.

Sincerely,

*Philip W. Steinfeldt*

Philip W. Steinfeldt  
Associate Engineer

/td  
Enclosures

cc: Mr. Mike Khalil, DEC, Avon, w/encl.  
Mr. Jim Smith, H & A of New York

DAILY FIELD REPORT

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PROJECT:	STATE ST. - MT. HOPE TUNNEL Rochester, New York	DATE: 21 May 1990
CLIENT:	STV/Seelye Stevenson Value & Knecht	PAGE: 1 of 2
CONTRACTOR:	GCF Constructors	FILE: 7433-82
WEATHER:	Cloudy, rain 50°	

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CONTRACTOR ACTIVITIES:

Mined TBM tunnel from Station 81+70 to Station 81+97 (day shift), from 81+97 to 82+37 (swing shift), and from 82+37 to 82+90 (graveyard shift).

Hauled tunnel muck intermittently during the day shift and until approximately 1730 hrs. during the swing shift. Dumped tunnel muck on the spoil pile adjacent to Control Structure 41 after approximately 1330 hrs. during the day shift, and intermittently during the swing and graveyard shifts.

FIELD REPRESENTATIVE ACTIVITIES:

W. Lanik (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 0752 to 1435 hrs. Conducted 12 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained one tunnel muck sample from the spoil pile and one sample of muck excavated from the 14-ft. diameter drop structure at Site 28, and performed headspace screening using the same instrument.

H. Thurston (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 1513 to 2249 hrs. Conducted 13 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained two tunnel muck samples from the spoil pile and performed headspace screening using the same instrument.

P. Micciche (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 2347 to 0637 hrs. Conducted 15 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained two tunnel muck samples from the spoil pile and performed headspace screening using the same instrument.

PROJECT: STATE ST. - MT. HOPE TUNNEL  
Rochester, New York  
CLIENT: STV/Seelye Stevenson Value &  
Knecht

DATE: 21 May 1990  
PAGE: 2 of 2  
FILE: 7433-82

**TEST DATA SUMMARY:**

None of the action threshold levels for the targeted compounds referenced in the 1 March 1990 workplan (benzene, toluene, 1,2-DCE, methylene chloride, and vinyl chloride) were exceeded during the monitoring periods.

Headspace screening data are summarized on the attached Shift Data Tables.

**FIELD REPRESENTATIVE**

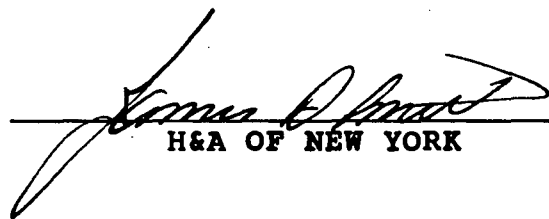
**TIME ON SITE**

W. Lanik	0715-1615 (9.0 hrs.)
H. Thurston	1600-2300 (7.0 hrs.)
P. Micciche	2300-0700 (8.0 hrs.)

**DISTRIBUTION**

STV/Seelye Stevenson: Mr. Richard Richter  
Mr. Suki Suresh

MCDOE: Mr. Phil Steinfeldt

  
H&A OF NEW YORK

JECT: STATE ST. MT. HOPE AVE TUNNEL  
 NT: STV/ SEELYE STEVENSON VALUE & KNECHT  
 REPRESENTATIVE: W. Lanik  
 CKED BY: S. Parker

TUNNEL HEADINGS AT  
 START: 81 + 70  
 END: 81 + 97  
 ADVANCE: 27

FILE: 7433-82  
 PAGE: 1 OF 2  
 DATE: 21 May 1990  
 SHIFT: Day  
 DFR NO.: 64

**TUNNEL AIR SAMPLES**

**APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM**

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN <sup>8</sup>	TOTAL DETECTED
0752	—	—	—	—	—	—	0.92	—	—	—	—	0.92
0927	—	—	—	—	0.02	—	1.04	—	—	0.10	0.01	1.17
1001	—	—	—	—	0.02	—	1.01	—	—	0.14	0.07	1.24
1031	—	—	—	—	0.02	—	0.65	—	—	0.10	0.02	0.79
1100	—	—	—	—	—	—	0.86	—	—	0.05	—	0.91
1130	—	—	—	—	0.02	—	0.97	—	—	0.08	0.10	1.15
1200	—	—	—	—	0.01	—	1.03	—	—	—	0.07	1.11
1230	—	—	—	—	0.01	—	0.85	—	—	0.12	0.09	1.07
1300	—	—	—	—	0.08	—	**	—	0.05	0.39	1.52	2.04
1330	—	—	—	0.04	0.09	—	**	—	0.06	0.43	1.61	2.23
1400	—	—	—	0.05	0.11	—	**	—	0.06	0.45	1.84	2.51
1435	—	—	—	0.05	0.11	—	**	—	0.08	0.30	1.61	2.15
0910aa	—	—	—	—	0.02	—	—	—	—	—	0.15	0.17
0944cg	—	—	—	—	0.02	—	—	—	—	0.06	0.07	0.15

**TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES**

**APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM**

SAMPLE TYPE	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN <sup>8</sup>	TOTAL DETECTED
TM/1330	—	—	—	0.20	0.31	—	—	—	0.20	—	3.33	4.04
M28/1345	—	—	—	—	—	—	—	—	0.03	—	0.62	0.65

## MARKS/ VISITORS:

Tunnel muck dumped after approximately 1330 hrs. during day shift.

Tunnel muck hauled from site intermittently during day shift.

No visitors to trailer during day shift.

No mining conducted from approximately 0700 to 1300 hrs.

Collected sample of muck excavated from the 14-ft. diameter drop structure at Site 28 at 1345 hrs.

Sample obtained from stockpile adjacent to the structure. Excavation advanced to approximately 45 ft.

below ground surface at the time of sampling.

No samples were obtained from Sites 15 or 27 as no excavation was performed.

## ABBREVIATIONS:

## SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

## NOTES:

1. (\*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
3. (cg) INDICATES CARRIER GAS BLANK ANALYSIS.
4. (aa) INDICATES AMBIENT AIR BLANK ANALYSIS.
5. (\*\*) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.

PROJECT: STATE ST. MT. HOPE AVE TUNNEL

TUNNEL HEADINGS AT

FILE: 7433-82

CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT

START: 81 + 97

PAGE: 1 OF 2

REPRESENTATIVE: W. Lanik/H. Thurston

END: 82 + 37

DATE: 21 May 1990

CHECKED BY: S. Parker

ADVANCE: 40

SHIFT: Swing

DFR NO.: 64

**TUNNEL AIR SAMPLES**

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN*	TOTAL DETECTED
1513	—	—	—	0.04	0.69	—	**	—	0.06	0.38	1.41	1.88
1546	—	—	—	—	0.03	—	1.67	—	0.02	0.21	0.13	2.06
1637	—	—	—	—	0.06	—	**	—	0.03	0.40	0.45	0.94
1708	—	—	—	0.05	0.09	—	**	—	0.05	0.35	1.77	2.31
1835	—	—	—	0.02	0.07	—	**	—	0.05	0.30	1.13	1.57
1905	—	—	—	0.04	0.07	—	**	—	0.04	0.36	1.36	1.87
1941	—	—	—	0.05	0.10	—	**	—	0.08	0.39	2.14	2.76
2011	—	—	—	0.05	0.09	—	**	—	0.07	0.40	1.92	2.53
2041	—	—	—	—	0.02	—	**	—	—	0.12	0.32	0.46
2111	—	—	—	—	0.02	—	**	—	—	0.10	0.37	0.49
2141	—	—	—	—	0.02	—	2.00	—	—	0.11	0.13	2.26
2219	—	—	—	—	—	—	2.20	—	—	—	0.47	2.67
2249	—	—	—	—	—	—	1.16	—	—	0.07	—	1.23

**TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES**

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN*	TOTAL DETECTED
TM/1650	—	—	—	0.14	0.26	—	—	—	0.16	—	1.09	1.65
TM/2149	—	—	0.08	0.12	0.18	—	—	—	0.10	—	0.92	1.40

## MARKS/ VISITORS:

Tunnel muck dumped intermittently during swing shift.

Tunnel muck hauled from site intermittently until approximately 1730 hrs. during swing shift.

No visitors to trailer during swing shift.

## ABBREVIATIONS:

## SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

## NOTES:

1. (\*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
3. (\*\*) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.



# SHIFT DATA TABLE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL  
 CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT  
 A REPRESENTATIVE: P. Micciche  
 CHECKED BY: S. Parker

TUNNEL HEADINGS AT  
 START: 82 + 37  
 END: 82 + 90  
 ADVANCE: 53

FILE: 7433-82  
 PAGE: 1 OF 2  
 DATE: 21-22 May 1990  
 SHIFT: Graveyard  
 DFR NO.: 64

## TUNNEL AIR SAMPLES

### APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN9*	TOTAL DETECTED
2347	—	—	—	—	0.08	—	**	—	0.07	0.33	2.00	2.48
0040	—	—	—	0.06	0.13	—	**	—	0.12	0.51	2.24	3.06
0059	—	—	—	—	0.03	—	2.00	—	0.04	0.30	0.36	2.73
0117	—	—	—	—	0.02	—	2.40	—	0.03	0.20	0.08	2.73
0135	—	—	—	—	0.02	—	1.41	—	0.02	0.14	0.01	1.60
0153	—	—	—	—	0.02	—	2.20	0.03	0.05	—	0.06	2.36
0215	—	—	—	0.03	0.06	—	**	—	0.02	0.28	1.14	1.53
0245	—	—	—	0.06	0.12	—	**	—	0.10	0.48	2.70	3.46
0325	—	—	—	0.06	0.21	—	**	—	0.10	0.40	2.07	2.84
4000	—	—	—	0.07	0.12	—	**	—	0.10	0.49	2.84	3.62
0430	—	—	—	0.07	0.13	—	**	—	0.10	0.53	3.03	3.86
0500	—	—	—	0.06	0.11	—	**	—	0.10	0.51	2.48	3.26
0530	—	—	—	0.06	0.11	—	**	—	0.10	—	2.64	2.91
0600	—	—	—	0.06	0.12	—	**	—	0.09	0.42	2.70	3.39
0637	—	—	—	0.07	0.13	—	**	—	0.10	0.77	2.72	3.79

## TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

### APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN9*	TOTAL DETECTED
TM/0200	—	—	—	—	0.27	—	—	—	0.15	—	3.12	3.54
TM/0520	—	—	—	0.21	0.32	—	—	—	0.18	—	4.74	5.45

## REMARKS/ VISITORS:

Tunnel muck dumped intermittently during graveyard shift.

No tunnel muck hauled from site during graveyard shift.

No visitors to trailer during graveyard shift.

## ABBREVIATIONS:

## SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

- NOTES:
1. (\*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
  2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
  3. (\*\*) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.

DAILY FIELD REPORT

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PROJECT:	STATE ST. - MT. HOPE TUNNEL	DATE:	22 May 1990
	Rochester, New York	PAGE:	1 of 2
CLIENT:	STV/Seelye Stevenson Value &	FILE:	7433-82
	Knecht		
CONTRACTOR:	GCF Constructors		
WEATHER:	Sunny 60°		

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CONTRACTOR ACTIVITIES:

Mined TBM tunnel from Station 82+90 to Station 83+32 (day shift), from 83+32 to 83+59 (swing shift), and from 83+59 to 84+08 (graveyard shift).

Hauled tunnel muck intermittently during the day shift and until approximately 1630 hrs. during the swing shift. Dumped tunnel muck on the spoil pile adjacent to Control Structure 41 intermittently during the day and graveyard shifts and from approximately 1600 to 1800 hrs. during the swing shift.

FIELD REPRESENTATIVE ACTIVITIES:

W. Lanik (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 0706 to 1458 hrs. Conducted 13 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained two tunnel muck samples from the spoil pile and one sample of muck excavated from the 14-ft. diameter drop structure at Site 28, and performed headspace screening using the same instrument.

S. Parker (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 1544 to 2234 hrs. Conducted 12 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained one tunnel muck sample from the spoil pile and performed headspace screening using the same instrument.

P. Micciche (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 2307 to 0630 hrs. Conducted 15 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained two tunnel muck samples from the spoil pile and performed headspace screening using the same instrument.

PROJECT: STATE ST. - MT. HOPE TUNNEL  
Rochester, New York  
CLIENT: STV/Seelye Stevenson Value &  
Knecht

DATE: 22 May 1990  
PAGE: 2 of 2  
FILE: 7433-82

Obtained routine weekly tunnel muck sample TM2315(0522) for subsequent analysis by General Testing Co. Noted that 6.21 ppm total unknown volatiles were detected during headspace screening of this sample, and that 17.02 ppm of unknowns were detected during headspace screening of sample TM/1620 performed during the swing shift. Sample TM/1620 may be selected to replace TM2315(0522) for organic volatiles analysis.

#### TEST DATA SUMMARY:

None of the action threshold levels for the targeted compounds referenced in the 1 March 1990 workplan (benzene, toluene, 1,2-DCE, methylene chloride, and vinyl chloride) were exceeded during the monitoring periods.

Headspace screening data are summarized on the attached Shift Data Tables.

#### FIELD REPRESENTATIVE

W. Lanik

S. Parker

P. Micciche

#### TIME ON SITE

0700-1500

(8.0 hrs.)

1500-2300

(8.0 hrs.)

2300-0700

(8.0 hrs.)

#### DISTRIBUTION

STV/Seelye Stevenson: Mr. Richard Richter  
Mr. Suki Suresh

MCDOE: Mr. Phil Steinfeldt

  
H&A OF NEW YORK

# SHIFT DATA TABLE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL

CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT

LAB REPRESENTATIVE: W. Lanik

CHECKED BY: S. Parker

TUNNEL HEADINGS AT

START: 82 + 90

END: 83 + 32

ADVANCE: 42

FILE: 7433-82

PAGE: 1 OF 2

DATE: 22 May 1990

SHIFT: Day

DFR NO.: 65

## TUNNEL AIR SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN <sup>S</sup> *	TOTAL DETECTED
0708	—	—	—	0.07	0.13	—	**	—	0.12	0.49	2.19	3.00
0731	—	—	—	—	0.03	—	1.82	—	0.02	0.19	0.08	2.14
0848	—	—	—	0.04	0.08	—	**	—	0.06	0.27	1.96	2.41
0915	—	—	—	0.03	0.05	—	**	—	0.04	0.18	0.99	1.29
0945	—	—	—	0.03	0.09	—	**	—	0.06	—	1.09	1.27
1028	—	—	—	—	0.02	—	**	—	0.03	0.22	0.50	0.77
1116	—	—	—	—	0.02	—	**	—	—	0.15	0.40	0.57
1155	—	—	—	—	—	—	2.57	0.06	—	0.23	0.07	2.93
1231	—	—	—	0.04	0.09	—	**	—	0.08	0.42	1.21	1.84
1314	—	—	—	—	—	—	2.14	—	—	0.18	0.05	2.37
1352	—	—	—	0.04	0.07	—	**	—	0.06	0.34	1.06	1.57
1423	—	—	—	—	0.05	—	**	—	0.03	—	0.39	0.47
1458	—	—	—	—	0.02	—	**	—	0.03	0.14	0.43	0.62
0830aa	—	—	—	—	—	—	—	—	—	—	—	—

## TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN <sup>S</sup> *	TOTAL DETECTED
TM/0840	—	—	—	0.31	0.46	—	—	—	0.23	0.18	13.90	15.08
TM28/1220	—	—	—	—	—	—	—	—	—	0.05	0.49	0.54
TM/1400	—	—	—	0.19	0.31	—	—	—	0.17	0.12	5.94	6.73

## MARKS/ VISITORS:

Tunnel muck dumped intermittently during day shift.

Tunnel muck hauled from site intermittently during day shift.

Collected sample of muck excavated from the 14-ft. diameter drop structure at Site 28 at 1220 hrs.

Sample obtained from stockpile adjacent to the structure. Excavation advanced to approximately 55 ft.

below ground surface at the time of sampling.

No samples were obtained from Sites 15 or 27 as no excavation was performed.

## ABBREVIATIONS:

## SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

## NOTES:

1. (\*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
3. (aa) INDICATES AMBIENT AIR BLANK ANALYSIS.
4. (\*\*) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.

# Sheet 1 DATA TABLE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL

CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT

REPRESENTATIVE: S. Parker

CHECKED BY: S. Parker

TUNNEL HEADINGS AT

START: 83 + 32

END: 83 + 59

ADVANCE: 27

FILE: 7433-82

PAGE: 1 OF 2

DATE: 22 May 1990

SHIFT: Swing

DFR NO.: 65

## TUNNEL AIR SAMPLES

### APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	BTYRENE	UNKNOWN <sup>S</sup>	TOTAL DETECTED
1544	—	—	—	—	0.03	—	2.30	0.03	0.04	0.25	0.06	2.71
1622	—	—	—	—	0.01	—	2.38	0.03	—	0.11	0.07	2.60
1708	—	—	—	0.02	0.08	—	**	—	0.08	0.45	1.36	1.99
1755	—	—	—	0.04	0.08	—	**	—	0.09	0.47	1.50	2.18
1834	—	—	—	0.01	0.06	—	**	—	0.09	0.63	1.02	1.81
1915	—	—	—	0.04	0.08	—	**	—	0.09	0.42	1.84	2.47
1945	—	—	—	—	0.02	—	1.98	—	0.03	0.20	0.11	2.34
2016	—	—	—	—	0.02	—	1.77	—	—	0.15	0.03	1.97
2105	—	—	—	—	0.03	—	1.17	0.03	0.05	0.35	0.01	1.64
2136	—	—	—	—	0.01	—	1.15	—	—	0.18	—	1.34
2204	—	—	—	—	—	—	1.14	—	—	0.19	0.01	1.34
2234	—	—	—	0.04	0.09	—	**	—	0.09	0.38	1.55	2.15

## TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

### APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	O-XYLENE	UNKNOWN <sup>S</sup>	TOTAL DETECTED
M/1620	—	—	—	0.33	0.62	—	—	—	0.30	—	18.09**	19.24
M/1620D	—	—	—	0.35	0.52	—	—	—	0.30	0.04	17.02	18.23

## REMARKS/ VISITORS:

Tunnel muck dumped intermittently from approximately 1600 to 1800 hrs. during swing shift.

Tunnel muck hauled from site Intermittently until approximately 1630 hrs. during swing shift.

No visitors to trailer during swing shift.

## ABBREVIATIONS:

## SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

NOTES: 1. (\*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.

2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.

3. (\*\*) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.

4. (D) INDICATES DUPLICATE ANALYSIS.

5. (\*\*\*) INDICATES IMPRECISE RESULT DUE TO OFF-SCALE CHROMATOGRAM FOR UNKNOWN COMPOUNDS. SEE DUPLICATE ANALYSIS FOR MORE PRECISE CONCENTRATION OF UNKNOWN. ALL OTHER CONCENTRATIONS REPORTED IN THE ORIGINAL ANALYSIS ARE BASED ON ON-SCALE CHROMATOGRAM PEAKS, AND THEREFORE ARE MORE PRECISE THAN THOSE IN THE DUPLICATE ANALYSIS.



# SHIFT DATA TABLE

OBJECT: STATE ST. MT. HOPE AVE TUNNEL  
 EVENT: STV/ SEELYE STEVENSON VALVE & KNECHT  
 REPRESENTATIVE: P. Micciche  
 CHECKED BY: S. Parker

TUNNEL HEADINGS AT  
 START: 83 + 59  
 END: 84 + 08  
 ADVANCE: 49

FILE: 7433-82  
 PAGE: 1 OF 2  
 DATE: 22-23 May 1990  
 SHIFT: Graveyard  
 DFR NO.: 65

## TUNNEL AIR SAMPLES

### APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN <sup>s</sup>	TOTAL DETECTED
2307	—	—	—	0.04	0.09	—	**	—	0.09	0.44	1.86	2.52
2351	—	—	—	—	—	—	2.05	—	—	0.19	0.04	2.28
0021	—	—	—	0.03	0.05	—	**	—	0.05	0.28	1.09	1.50
0051	—	—	—	—	—	—	2.03	—	—	0.17	0.04	2.24
0128	—	—	—	0.04	0.08	—	**	—	0.11	0.44	1.79	2.46
0200	—	—	—	0.04	0.10	—	**	—	0.09	0.38	2.10	2.71
0230	—	—	—	—	—	—	2.45	—	—	0.18	0.05	2.68
0300	—	—	—	0.05	0.10	—	**	—	0.10	0.46	2.22	2.93
0400	—	—	—	—	0.02	—	2.78	—	0.04	0.18	0.10	3.12
0417	—	—	—	0.04	0.09	—	**	—	0.10	0.33	1.74	2.30
0437	—	—	—	—	0.02	—	2.42	—	—	0.15	0.11	2.70
0500	—	—	—	0.04	0.10	—	**	—	0.10	—	1.84	2.08
0530	—	—	—	0.05	0.09	—	**	—	0.09	0.40	2.06	2.69
0600	—	—	—	—	0.07	—	**	—	—	—	0.72	0.79
0630	—	—	—	—	0.04	—	2.23	—	0.04	1.33	0.21	3.85

## TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

### APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN <sup>s</sup>	TOTAL DETECTED
TM/2315	—	—	—	—	0.36	—	—	—	0.26	0.04	6.21	6.87
TM/0210	—	—	—	0.14	0.20	—	—	—	0.18	0.04	3.14	3.70

## MARKS/ VISITORS:

Tunnel muck dumped Intermittently during graveyard shift.

No tunnel muck hauled from site during graveyard shift.

No visitors to trailer during graveyard shift.

Obtained routine weekly tunnel muck sample TM 2315 (0522) for subsequent analysis by

General Testing Co. Noted that 6.21 ppm total unknown volatiles were detected during

headspace screening of this sample, and that 17.02 ppm of unknowns were detected during

headspace screening of sample TM 1620 performed during the swing shift. Sample TM/1620

may be selected to replace TM/2315 (0522) for organic volatiles analysis.

## ABBREVIATIONS:

## SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

## NOTES:

1. (\*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
3. (\*\*) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.

DAILY FIELD REPORT

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PROJECT:	STATE ST. - MT. HOPE TUNNEL	DATE: 23 May 1990
	Rochester, New York	PAGE: 1 of 2
CLIENT:	STV/Seelye Stevenson Value &	FILE: 7433-82
	Knecht	
CONTRACTOR:	GCF Constructors	
WEATHER:	Partly cloudy 60°	

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CONTRACTOR ACTIVITIES:

Mined TBM tunnel from Station 84+08 to Station 84+40 (day shift), from 84+40 to 84+91 (swing shift), and from 84+91 to 85+30 (graveyard shift).

Hauled tunnel muck intermittently during the day shift. Dumped tunnel muck on the spoil pile adjacent to Control Structure 41 intermittently during all three shifts.

FIELD REPRESENTATIVE ACTIVITIES:

W. Lanik (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 0715 to 1440 hrs. Conducted 14 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained two tunnel muck samples from the spoil pile and one sample of muck excavated from the 14-ft. diameter drop structure at Site 28, and performed headspace screening using the same instrument.

S. Parker (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 1511 to 2248 hrs. Conducted 14 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained two tunnel muck samples from the spoil pile and performed headspace screening using the same instrument.

P. Micciche (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 2311 to 0633 hrs. Conducted 16 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained two tunnel muck samples from the spoil pile and performed headspace screening using the same instrument.

PROJECT: STATE ST. - MT. HOPE TUNNEL  
Rochester, New York  
CLIENT: STV/Seelye Stevenson Value &  
Knecht

DATE: 23 May 1990  
PAGE: 2 of 2  
FILE: 7433-82

**TEST DATA SUMMARY:**

None of the action threshold levels for the targeted compounds referenced in the 1 March 1990 workplan (benzene, toluene, 1,2-DCE, methylene chloride, and vinyl chloride) were exceeded during the monitoring periods.

Headspace screening data are summarized on the attached Shift Data Tables.

**FIELD REPRESENTATIVE**

W. Lanik

S. Parker

P. Micciche

**TIME ON SITE**

0700-1515  
(8.25 hrs.)  
1500-2315  
(8.25 hrs.)  
2300-0700  
(8.0 hrs.)

**DISTRIBUTION**

STV/Seelye Stevenson: Mr. Richard Richter  
Mr. Suki Suresh

MCDOE: Mr. Phil Steinfeldt

  
H&A OF NEW YORK

# SHIFT DATA TABLE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL  
 AGENT: STV/ SEELYE STEVENSON VALUE & KNECHT  
 A REPRESENTATIVE: W. Lanik  
 CHECKED BY: S. Parker

TUNNEL HEADINGS AT  
 START: 84 + 08  
 END: 84 + 40  
 ADVANCE: 32

FILE: 7433-82  
 PAGE: 1 OF 2  
 DATE: 23 May 1990  
 SHIFT: Day  
 DFR NO.: 66

## TUNNEL AIR SAMPLES

### APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN*	TOTAL DETECTED
0716	—	—	—	—	—	—	1.95	—	—	0.13	0.06	2.14
0745	—	—	—	—	0.04	—	1.64	—	0.02	—	0.23	1.93
0850	—	—	—	—	—	—	0.89	—	—	—	—	0.89
0922	—	—	—	—	0.03	—	1.02	—	—	—	0.11	1.16
1000	—	—	—	—	0.03	—	1.86	—	0.02	0.41	0.26	2.58
1039	—	—	—	—	0.03	—	1.62	—	0.04	0.08	0.08	1.85
1115	—	—	—	—	0.06	—	0.99	—	0.04	0.23	0.48	1.80
1145	—	—	—	—	0.03	—	1.77	—	—	0.08	0.05	1.93
1215	—	—	—	0.04	0.10	—	**	—	0.07	0.45	1.40	2.06
1245	—	—	—	—	0.03	—	0.97	—	—	0.11	0.08	1.16
1308	—	—	—	0.04	0.10	—	**	—	0.09	0.58	1.64	2.45
1339	—	—	—	0.04	0.10	—	**	—	0.08	0.59	1.49	2.30
1414	—	—	—	—	0.04	—	1.66	—	0.04	0.17	0.21	2.12
1440	—	—	—	0.02	0.10	—	**	—	0.02	0.13	0.64	0.91
0834aa	—	—	—	—	—	—	—	—	—	—	—	—
0906cg	—	—	—	—	—	—	—	—	—	—	—	—

## TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

### APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	M-XYLENE BENZENE	STYRENE	O-XYLENE	UNKNOWN*	TOTAL DETECTED
TM/0800	—	—	—	0.09	0.13	—	—	0.07	—	0.05	3.26	3.60
SM28/1140	—	—	—	0.02	—	—	—	—	0.07	—	0.43	0.52
TM/1300	—	—	—	0.17	0.21	—	—	0.10	—	0.11	5.30	5.89

## MARKS/ VISITORS:

Tunnel muck dumped intermittently during day shift.

Tunnel muck hauled from site intermittently during day shift.

No visitors to trailer during day shift.

Collected sample of muck excavated from the 14-ft. diameter drop structure at Site 28 at 1140 hrs.

Sample obtained from stockpile adjacent to the structure. Excavation advanced to approximately 60 ft.

below ground surface at the time of sampling.

No samples were obtained from Sites 15 or 27 as no excavation was performed during the day shift.

## ABBREVIATIONS:

## SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

## NOTES:

1. (\*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
3. (cg) INDICATES CARRIER GAS BLANK ANALYSIS.
4. (aa) INDICATES AMBIENT AIR BLANK ANALYSIS.
5. (\*\*) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.

# SHIFT DATA TABLE

OBJECT: STATE ST. MT. HOPE AVE TUNNEL  
 IDENT: STV/ SEELYE STEVENSON VALUE & KNECHT  
 A REPRESENTATIVE: S. Parker  
 CHECKED BY: S. Parker

TUNNEL HEADINGS AT  
 START: 84 + 40  
 END: 84 + 91  
 ADVANCE: 51

FILE: 7433-82  
 PAGE: 1 OF 2  
 DATE: 23 May 1990  
 SHIFT: Swing  
 DFR NO.: 66

## TUNNEL AIR SAMPLES

### APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN <sup>s</sup>	TOTAL DETECTED
1511	—	—	—	0.04	0.10	—	**	—	0.08	0.29	1.50	2.01
1601	—	—	—	0.04	0.09	—	**	—	0.07	0.33	1.80	2.33
1641	—	—	—	0.04	0.10	—	**	—	0.08	0.88	2.04	3.14
1724	—	—	—	—	0.05	—	1.91	—	0.04	0.28	0.28	2.56
1754	—	—	—	0.04	0.09	—	**	—	0.08	0.47	1.75	2.43
1834	—	—	—	0.02	0.11	—	**	0.13	0.10	0.36	1.74	2.46
1904	—	—	—	0.05	0.11	—	**	—	0.09	0.63	2.05	2.93
1934	—	—	—	0.04	0.10	—	**	—	0.08	0.52	2.02	2.76
2004	—	—	—	0.05	0.15	—	**	—	0.09	0.64	2.20	3.13
2040	—	—	—	0.02	0.08	—	**	—	0.06	0.36	1.50	2.02
2110	—	—	—	—	0.03	—	1.92	—	0.02	0.22	0.17	2.36
2140	—	—	—	0.04	0.10	—	**	—	0.08	0.40	1.61	2.23
2219	—	—	—	0.04	0.09	—	**	—	0.06	0.30	1.55	2.04
2248	—	—	—	—	0.02	—	1.96	—	—	0.17	0.14	2.29
2203cg	—	—	—	—	—	—	—	—	—	—	0.13	0.13

## TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

### APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	O-XYLENE	UNKNOWN <sup>s</sup>	TOTAL DETECTED
TM/1525	—	—	—	0.19	0.22	—	—	—	0.11	0.02	7.58	8.12
TM/1940	—	—	—	0.15	0.19	—	—	—	0.10	0.09	4.54	5.07

## EMARKS/ VISITORS:

Tunnel muck dumped intermittently during swing shift.

No tunnel muck hauled from site during swing shift.

No visitors to trailer during swing shift.

## ABBREVIATIONS:

## SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

NOTES: 1. (\*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.

2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.

3. (cg) INDICATES CARRIER GAS BLANK ANALYSIS.

4. (\*\*) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.



# SHIFT DATA TABLE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL  
 CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT  
 H&A REPRESENTATIVE: P. Micciche  
 CHECKED BY: S. Parker

TUNNEL HEADINGS AT  
 START: 84 + 91  
 END: 85 + 30  
 ADVANCE: 39

FILE: 7433-82  
 PAGE: 1 OF 2  
 DATE: 23-24 May 1990  
 SHIFT: Graveyard  
 DFR NO.: 66

## TUNNEL AIR SAMPLES

### APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN <sup>S</sup>	TOTAL DETECTED
2311	—	—	—	—	0.03	—	1.26	—	—	0.15	0.05	1.49
2341	—	—	—	—	0.03	—	1.26	—	—	0.12	0.13	1.54
0011	—	—	—	0.04	0.10	—	**	—	0.07	0.31	1.72	2.24
0041	—	—	—	—	0.03	—	1.97	—	0.02	0.19	0.16	2.37
1000	—	—	—	—	0.02	—	1.43	—	—	0.26	0.03	1.74
0130	—	—	—	0.04	0.10	—	**	—	0.06	0.52	1.98	2.70
0200	—	—	—	0.05	0.10	—	**	—	0.08	0.44	2.26	2.93
0245	—	—	—	—	0.03	—	2.08	—	—	0.23	0.15	2.49
0315	—	—	—	—	0.05	—	2.17	—	0.04	0.21	0.15	2.62
0345	—	—	—	—	0.04	—	2.18	—	0.04	0.25	0.21	2.72
0402	—	—	—	—	0.02	—	1.75	—	—	0.19	0.10	2.06
0430	—	—	—	—	0.04	—	1.78	—	—	0.17	0.16	2.15
0500	—	—	—	—	—	—	1.30	—	—	0.12	0.07	1.49
0530	—	—	—	—	—	—	1.37	—	—	0.15	—	1.52
0600	—	—	—	0.02	0.05	—	**	—	—	0.19	1.11	1.37
0633	—	—	—	—	—	—	1.14	—	—	0.16	0.07	1.37

## TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

### APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	O-XYLENE	UNKNOWN <sup>S</sup>	TOTAL DETECTED
TM/0100	—	—	—	0.12	0.18	—	—	—	0.10	0.09	2.85	3.34
TM/0330	—	—	—	0.20	0.23	—	—	—	0.11	0.02	7.11	7.67

## MARKS/ VISITORS:

Tunnel muck dumped intermittently during graveyard shift.

No tunnel muck hauled from site during graveyard shift.

No visitors to trailer during graveyard shift.

## ABBREVIATIONS:

## SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

## NOTES:

1. (\*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
3. (\*\*) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.

DAILY FIELD REPORT

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PROJECT:	STATE ST. - MT. HOPE TUNNEL	DATE: 24 May 1990
	Rochester, New York	PAGE: 1 of 2
CLIENT:	STV/Seelye Stevenson Value &	FILE: 7433-82
	Knecht	
CONTRACTOR:	GCF Constructors	
WEATHER:	Partly cloudy, 60°	

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CONTRACTOR ACTIVITIES:

Mined TBM tunnel from Station 85+30 to Station 85+78 (day shift). Completed mining for mainline tunnel at Station 85+78.

Hauled tunnel muck intermittently during the day shift and until approximately 1515 hrs. during the swing shift. Dumped tunnel muck on the spoil pile adjacent to Control Structure 41 intermittently during the day shift and until approximately 1540 hrs. during the swing shift. No tunnel muck was dumped during the graveyard shift.

FIELD REPRESENTATIVE ACTIVITIES:

W. Lanik (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 0705 to 1438 hrs. Conducted 16 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained two tunnel muck samples from the spoil pile and one sample of muck excavated from the 14-ft. diameter drop structure at Site 28, and performed headspace screening using the same instrument.

Delivered routine weekly tunnel muck samples to General Testing Co. Sample TM1620(0522) was submitted for volatiles analysis, and TM2315(0522) was submitted for phenol and inorganics analysis.

Conducted headspace screening on one tunnel seep sample obtained by F. Amos (H&A) and T. Wells (H&A) at Station 83+70.

S. Parker (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 1508 to 2224 hrs. Conducted 12 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

No tunnel muck samples were available for headspace screening during the swing shift.

P. Micciche (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 2311 to 0630 hrs. Conducted 16 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

PROJECT: STATE ST. - MT. HOPE TUNNEL  
Rochester, New York  
CLIENT: STV/Seelye Stevenson Value &  
Knecht

DATE: 24 May 190  
PAGE: 2 of 2  
FILE: 7433-82

No tunnel muck samples were available for headspace screening during the graveyard shift.

TEST DATA SUMMARY:

None of the action threshold levels for the targeted compounds referenced in the 1 March 1990 workplan (benzene, toluene, 1,2-DCE, methylene chloride, and vinyl chloride) were exceeded during the monitoring periods.

Headspace screening data are summarized on the attached Shift Data Tables.

FIELD REPRESENTATIVE

W. Lanik

S. Parker

P. Micciche

TIME ON SITE

0700- 1500

(8.0 hrs.)

1500-2300

(8.0 hrs.)

2300-0700

(8.0 hrs.)

DISTRIBUTION

STV/Seelye Stevenson: Mr. Richard Richter  
Mr. Suki Suresh

MCDOE: Mr. Phil Steinfeldt

  
H&A OF NEW YORK

PROJECT: STATE ST. MT. HOPE AVE TUNNEL  
 CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT  
 E&A REPRESENTATIVE: W. Lanik  
 CHECKED BY: W. Lanik

TUNNEL HEADINGS AT  
 START: 85 + 30  
 END: 85 + 78  
 ADVANCE: 48

FILE: 7433-82  
 PAGE: 1 OF 2  
 DATE: 24 May 1990  
 SHIFT: Day  
 DFR NO.: 67

# TUNNEL AIR SAMPLES

## APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN <sup>5</sup>	TOTAL DETECTED
0706	—	—	—	—	—	—	1.37	—	—	0.12	0.06	1.55
0735	—	—	—	—	—	—	1.89	—	—	0.11	0.06	2.06
0805	—	—	—	—	—	—	1.19	—	—	0.14	—	1.33
0835	—	—	—	—	—	—	0.97	—	—	—	0.07	1.04
0905	—	—	—	—	—	—	1.67	—	—	—	0.08	1.75
0935	—	—	—	0.04	0.10	—	**	—	0.07	0.43	1.72	2.36
1005	—	—	—	0.04	0.13	—	**	—	0.08	0.46	2.00	2.71
1035	—	—	—	—	0.03	—	2.06	—	—	0.16	0.18	2.43
1115	—	—	—	—	0.05	—	**	—	—	0.17	0.57	0.79
1145	—	—	—	0.05	0.10	—	**	—	0.08	0.40	1.88	2.61
1217	—	—	—	0.04	0.09	—	**	—	0.08	0.39	1.82	2.42
1240	—	—	—	0.05	0.10	—	**	—	0.07	0.34	2.15	2.71
1310	—	—	—	0.05	0.10	—	**	—	0.08	0.35	2.04	2.62
1340	—	—	—	0.05	0.13	—	**	—	0.06	—	2.12	2.36
1411	—	—	—	—	0.03	—	2.42	0.30	0.18	0.27	0.17	3.37
1438	—	—	—	0.03	0.06	—	**	—	0.05	0.26	1.32	1.72

# TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

## APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	M-XYLENE BENZENE	STYRENE	O-XYLENE	UNKNOWN <sup>5</sup>	TOTAL DETECTED
SM28/1000	—	—	—	0.02	—	—	—	—	0.10	—	0.84	0.96
TM/1030	—	—	—	0.20	0.33	—	—	0.14	—	0.13	3.93	4.73
TM/1230	—	—	—	0.19	0.30	—	—	0.13	—	0.03	6.37	7.02
TS/0935	—	—	—	—	—	—	—	—	—	—	1.97	1.97
TS/0935D	—	—	—	—	—	—	—	—	—	—	2.70***	2.70

## EMARKS/ VISITORS:

Tunnel muck dumped intermittently after approximately 1000 hrs. during day shift.

Tunnel muck hauled from site Intermittently during day shift.

F. Amos and T. Wells (H&A) visited trailer at 0900 hrs. to obtain vials for seep sampling.

Returned at 1330 hrs. to deliver seep sample TS/0935, collected at station 83+70.

Collected sample of muck excavated from the 14-ft. diameter drop structure at Site 28 at 1000 hrs.

Sample obtained from stockpile adjacent to the structure. Excavation advanced to approximately 62 ft.

below ground surface at the time of sampling.

No samples were obtained from Sites 15 or 27 as no excavation was performed during the day shift.

Delivered routine weekly tunnel muck sample TM 1620 (0522) to General Testing Co. for volatiles

analysis, and TM 2315 (0522) for phenol and Inorganics analysis.

## ABBREVIATIONS:

## SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

## NOTES:

1. (\*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
3. (D) INDICATES DUPLICATE ANALYSIS.
4. (\*\*) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.
5. (\*\*\*) INDICATES IMPRECISE RESULT DUE TO OFF-SCALE CHROMATOGRAM PEAKS FOR UNKNOWN COMPOUNDS. SEE ORIGINAL ANALYSIS FOR MORE PRECISE CONCENTRATION OF UNKNOWNNS.

# SHIFT DATA TABLE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL  
 CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT  
 H&A REPRESENTATIVE: S. Parker  
 CHECKED BY: W. Lanik

TUNNEL HEADINGS AT  
 START: 85 + 78  
 END: 85 + 78  
 ADVANCE: —

FILE: 7433-82  
 PAGE: 1 OF 2  
 DATE: 24 May 1990  
 SHIFT: Swing  
 DFR NO.: 67

## TUNNEL AIR SAMPLES

### APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN <sup>S</sup> *	TOTAL DETECTED
1508	—	—	—	0.03	0.07	—	**	—	0.08	0.12	1.41	1.71
1536	—	—	—	—	0.03	—	3.13	—	—	0.16	0.10	3.42
1606	—	—	—	—	—	—	1.66	—	—	—	—	1.66
1635	—	—	—	—	—	—	1.67	0.07	—	—	—	1.74
1705	—	—	—	—	—	—	1.28	—	—	—	—	1.28
1758	—	—	—	—	—	—	—	—	0.04	—	0.26	0.30
1840	—	—	—	—	—	—	—	—	—	—	0.24	0.24
1924	—	—	—	—	—	—	1.78	—	—	—	0.04	1.82
2009	—	—	—	—	—	—	1.66	—	—	—	0.12	1.68
2054	—	—	—	—	—	—	1.52	—	—	—	0.06	1.58
2139	—	—	—	—	—	—	1.57	—	—	—	—	1.57
2224	—	—	—	—	—	—	1.76	—	—	—	0.06	1.82

## TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

### APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN <sup>S</sup> *	TOTAL DETECTED

## REMARKS/ VISITORS:

Tunnel muck dumped until approximately 1540 hrs. during swing shift.

Tunnel muck hauled from site until approximately 1515 hrs. during swing shift.

No visitors to trailer during swing shift.

GCF foreman informed S. Parker (H&A) that mining for the mainline tunnel was completed at approximately 1509 hrs.

## ABBREVIATIONS:

## SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

- NOTES:
1. (\*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
  2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
  3. (\*\*) INDICATES PRESENCE OF COMPOUND IN SAMPLE WHICH ELUTED IN GENERAL RANGE OF HYDROGEN SULFIDE STANDARD, BUT WAS NOT WITHIN TWO PERCENT OF THE ELUTION TIME. COMPOUND CONCENTRATION REPORTED AS AN UNKNOWN.



PROJECT: STATE ST. MT. HOPE AVE TUNNEL  
 CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT  
 H&A REPRESENTATIVE: P. Micciche  
 CHECKED BY: W. Lanik

TUNNEL HEADINGS AT  
 START: 85 + 78  
 END: 85 + 78  
 ADVANCE: —

FILE: 7433-82  
 PAGE: 1 OF 2  
 DATE: 24-25 May 1990  
 SHIFT: Graveyard  
 DFR NO.: 67

# TUNNEL AIR SAMPLES

## APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN <sup>1</sup>	TOTAL DETECTED
2311	—	—	—	—	—	—	1.62	—	—	—	0.07	1.69
2338	—	—	—	—	—	—	1.66	—	—	—	0.07	1.73
0000	—	—	—	—	—	—	1.42	—	—	—	0.18	1.60
0030	—	—	—	—	—	—	1.60	—	—	—	0.12	1.72
0100	—	—	—	—	—	—	1.62	—	—	—	0.10	1.72
0130	—	—	—	—	—	—	1.43	—	—	—	0.08	1.51
0200	—	—	—	—	—	—	1.53	—	—	0.11	0.04	1.68
0230	—	—	—	—	—	—	1.41	—	—	—	0.03	1.44
0300	—	—	—	—	—	—	1.52	—	—	—	0.03	1.55
0330	—	—	—	—	—	—	1.44	—	—	—	0.02	1.46
0400	—	—	—	—	—	—	1.52	—	—	—	—	1.52
0430	—	—	—	—	—	—	1.40	—	—	—	—	1.40
0500	—	—	—	—	—	—	1.39	—	—	—	0.04	1.43
0530	—	—	—	—	—	—	1.32	—	—	—	—	1.32
0600	—	—	—	—	—	—	1.51	—	—	—	—	1.51
0630	—	—	—	—	—	—	1.63	—	—	—	0.05	1.68

# TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

## APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN <sup>1</sup>	TOTAL DETECTED

## REMARKS/ VISITORS:

No tunnel muck dumped during graveyard shift.

No tunnel muck hauled from site during graveyard shift.

No visitors to trailer during graveyard shift.

## ABBREVIATIONS:

## SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

## NOTES:

1. (\*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.

DAILY FIELD REPORT

PROJECT: STATE ST. - MT. HOPE TUNNEL DATE: 25 May 1990  
Rochester, New York PAGE: 1 of 1  
CLIENT: STV/Seelye Stevenson Value & FILE: 7433-82  
Knecht  
CONTRACTOR: GCF Constructors  
WEATHER: Sunny, 70°

CONTRACTOR ACTIVITIES:

Continued site work for surface structures at Sites 15, 27, and 28.

FIELD REPRESENTATIVE ACTIVITIES:

W. Lanik (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 0935 to 1111 hrs. Conducted four tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Obtained one sample of muck excavated from the 14-ft. diameter drop structure at Site 28, and performed headspace screening using the same instrument.

TEST DATA SUMMARY:

None of the action threshold levels for the targeted compounds referenced in the 1 March 1990 workplan (benzene, toluene, 1,2-DCE, methylene chloride, and vinyl chloride) were exceeded during the monitoring periods.

Headspace screening data are summarized on the attached Shift Data Tables.

FIELD REPRESENTATIVE

W. Lanik

TIME ON SITE

0700-1145  
(4.75 hrs.)

DISTRIBUTION

STV/Seelye Stevenson: Mr. Richard Richter  
Mr. Suki Suresh

MCDOE: Mr. Phil Steinfeldt

AVE TUNN  
ON VALUE

PROJECT: STATE ST. MT. HOPE AVE TUNNEL  
CLIENT: STV/ SEELYE STEVENSON VALUE & KNECHT  
& A REPRESENTATIVE: W. Lanik  
CHECKED BY: W. Lanik

**TUNNEL HEADINGS AT**  
**START: —**  
**END: —**  
**ADVANCE: —**

FILE: 7433-82  
PAGE: 1 OF 2  
DATE: 25 May 1990  
SHIFT: Day  
DFR NO.: 68

## TUNNEL AIR SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

[illegible]

### TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

[illegible]

## REMARKS/ VISITORS:

No tunnel muck dumped during day shift.

No tunnel muck hauled from site during day shift.

No visitors to trailer during day shift.

Exhaust fan shut off at approximately 1115 hrs.

Collected sample of muck excavated from the 14-ft. diameter drop structure at Site 28 at 0840 hrs.

Sample obtained from stockpile adjacent to the structure. Excavation advanced to approximately 62 ft.

below ground surface at the time of sampling.

No samples were obtained from Sites 15 or 27 as no excavation was performed during the day shift.

## ABBREVIATIONS:

## SAMPLE TYPE:

TM	TUNNEL MUCK
TS	TUNNEL SEEP
SM#	SHAFT SOIL OR MUCK FROM SITE 15, 27, OR 28

- NOTES:
1. (\*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
  2. COMPOUNDS LESS THAN 10 PPB NOT REPORTED.