
file. hw. 828044. 1990. 5-24. state. mt-hope -
tunnel- lab- analysis

GA

Monroe County



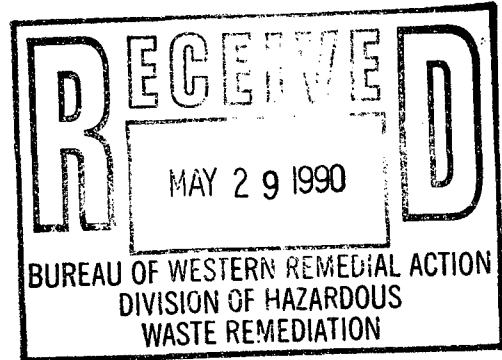
THOMAS R. FREY
COUNTY EXECUTIVE

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

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

May 24, 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 7, 1990 to May 11, 1990 are enclosed for your information and use.

Sincerely,

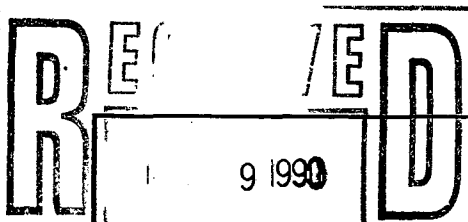
Philip W. Steinfeldt

Philip W. Steinfeldt
Associate Engineer

/td

Enclosures

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



9 1990

REPORT NO. 54

BUREAU OF WATER MEDICAL ACTION
DIVISION OF HAZARDOUS
WASTE REMEDIATION

DAILY FIELD REPORT

PROJECT:	STATE ST. - MT. HOPE TUNNEL Rochester, New York	DATE:	7 May 1990
CLIENT:	STV/Seelye Stevenson Value & Knecht	PAGE:	1 of 2
CONTRACTOR:	GCF Constructors	FILE:	7433-82
WEATHER:	Cloudy/Rain 55°		

CONTRACTOR ACTIVITIES:

Mined TBM tunnel from Station 69+15 to Station 69+62 (day shift), from 69+62 to 70+24 (swing shift), and from 70+24 to 70+79 (graveyard shift).

Hauled tunnel muck from the site intermittently during the day shift and until approximately 1600 hrs. during the swing 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 0902 to 1447 hrs. Conducted 12 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.

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

S. Parker (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 1514 to 2224 hrs. Conducted 11 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

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

Discussed methane concentrations detected during headspace analyses of tunnel air with T. George (GCF) who visited the trailer at 2144 hrs. Informed him that no methane was detected during the last completed headspace screening performed on the tunnel air sample obtained at 2041 hrs.

PROJECT:	STATE ST. - MT. HOPE TUNNEL Rochester, New York	DATE: 7 May 1990
CLIENT:	STV/Seelye Stevenson Value & Knecht	PAGE: 2 of 2 FILE: 7433-82

P. Micciche (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 2258 to 0635 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.

Discussed methane concentrations detected during headspace analyses of tunnel air with P. Conheady (Gonzales Electrical Contractors) who visited the trailer at 0026 hrs. Informed him that the methane concentrations detected during the swing shift were within the range of concentrations generally observed during tunnel air monitoring for the project.

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.

FIELD REPRESENTATIVE

W. Lanik
S. Parker
P. Micciche

TIME ON SITE

0700-1530
(8.5 hrs.)
1515-2315
(8.0 hrs.)
2300-0700
(8.0 hrs.)

DISTRIBUTION

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


H&A OF NEW YORK

SHIFT DATA TABLE

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

TUNNEL HEADINGS AT
 START: 69+15
 END: 69+62
 ADVANCE: 47

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 7 May 1990
 SHIFT: Day
 DFR NO.: 54

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 ^s	TOTAL DETECTED
0902	—	—	—	0.02	0.06	0.02	—	—	0.05	0.19	0.94	1.26
0935	—	—	—	0.02	0.07	tr	—	0.09	—	—	0.54	0.72
1005	—	—	—	—	0.02	0.01	—	—	—	0.08	0.01	0.11
1035	—	—	—	0.02	0.06	0.01	—	—	0.05	0.10	0.51	0.74
1105	—	—	—	0.02	0.07	0.01	—	—	0.03	—	0.38	0.50
1135	—	—	—	0.02	0.06	tr	—	—	0.04	—	0.47	0.59
1205	—	—	—	0.02	0.07	0.02	—	—	—	0.09	0.55	0.73
1245	—	—	—	0.02	0.06	0.01	—	—	0.05	0.17	0.52	0.82
1316	—	—	—	—	—	tr	—	—	—	—	—	—
1345	—	—	—	—	—	tr	—	—	—	—	—	—
1417	—	—	—	—	0.03	0.01	—	—	0.07	0.22	—	0.32
1447	—	—	—	0.02	0.07	0.01	—	—	0.07	0.09	0.73	0.98
0806aa	—	—	—	—	0.10	—	—	—	—	—	—	0.10
0848cg	—	—	—	—	0.03	—	—	—	—	—	—	0.03

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 ^s	TOTAL DETECTED
TM/1130	—	—	—	0.03	0.06	—	—	—	0.04	—	1.28	1.41
TM/1300	—	—	—	0.19	0.17	—	—	—	0.09	0.21	3.68	4.34

REMARKS/ VISITORS:

Tunnel muck dumping and hauling ongoing intermittently during day shift.

K.Peck (GCF) visited trailer to discuss methane concentrations detected in tunnel exhaust air samples.

No samples were obtained from Sites 15 and 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. (tr) INDICATES METHANE DETECTED AT CONCENTRATIONS LESS THAN 0.01 PERCENT.
6. METHANE CONCENTRATIONS EXPRESSED IN PERCENT BY VOLUME. METHANE CONCENTRATION VALUES NOT INCLUDED IN TOTAL DETECTED COLUMN.

SHIFT DATA TABLE

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

TUNNEL HEADINGS AT
 START: 69+62
 END: 70+24
 ADVANCE: 62

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 7 May 1990
 SHIFT: Swing
 DFR NO.: 54

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'S*	TOTAL DETECTED
1514	--	--	--	--	0.07	--	--	--	0.06	0.14	1.28	1.55
1605	--	--	--	0.03	0.09	0.02	--	0.07	0.11	0.43	0.85	1.58
1638	--	--	--	--	0.05	--	--	0.03	0.06	0.18	--	0.32
1714	--	--	--	--	--	0.02	--	--	--	0.15	--	0.15
1753	--	--	--	--	0.05	0.04	--	--	--	0.20	0.11	0.36
1828	--	--	--	0.03	0.09	0.01	--	--	0.08	0.28	1.43	1.91
1859	--	--	--	--	0.03	0.03	--	--	0.03	0.13	0.03	0.22
2000	--	--	--	0.02	0.08	0.01	--	--	0.08	0.30	0.85	1.33
2041	--	--	--	--	0.04	--	--	--	--	0.16	1.84	2.04
2121	--	--	--	0.02	0.12	--	--	--	0.07	0.27	3.25	3.73
2224	--	--	--	--	0.03	0.02	--	--	--	0.10	0.53	0.66

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'S*	TOTAL DETECTED
SM28/1630	--	--	--	--	--	--	--	--	--	--	--	--
TM/1735	--	--	--	0.25	0.24	--	--	--	0.10	0.35	5.68	6.62
TM/2215	--	--	--	--	0.06	--	--	--	0.04	--	0.34	0.44

REMARKS/ VISITORS:

Tunnel muck dumped intermittently during swing shift.

Tunnel muck hauled from site until approximately 1600 hrs. during swing shift.

T. George (GCF) visited trailer at 2144 hrs. to report possible elevated methane readings in tunnel and to inquire about concentrations detected by H&A. S. Parker (H&A) responded that no methane was detected during the last completed headspace screening performed on the tunnel air sample obtained at 2041 hrs.

Collected sample of soil excavated from the 14-ft. diameter drop structure at Site 28 at 1630 hrs. Sample obtained from stockpile adjacent to the structure. Excavation advanced to bedrock at approximately 13 ft. below ground surface at the time of sampling. Sample consisted of brown fill visually classified as silty CLAY, with some coarse to fine sand, little brick, trace cinders.

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. METHANE CONCENTRATIONS EXPRESSED IN PERCENT BY VOLUME. METHANE CONCENTRATION VALUES NOT INCLUDED IN TOTAL DETECTED COLUMN.

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: 70 + 24
 END: 70 + 79
 ADVANCE: 55

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 7-8 May 1990
 SHIFT: Graveyard
 DFR NO.: 54

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
2258	—	—	—	0.02	0.08	0.02	—	—	—	0.45	1.18	1.73
2328	—	—	—	0.02	0.08	0.02	—	—	—	—	1.05	1.15
2358	—	—	—	—	0.02	0.01	—	—	—	—	0.14	0.16
0040	—	—	—	0.03	0.12	0.03	—	0.06	—	0.30	1.18	1.69
0135	—	—	—	—	0.03	0.01	—	—	—	0.21	0.11	0.35
0215	—	—	—	—	—	0.02	—	—	—	0.17	—	0.17
0245	—	—	—	—	—	0.02	—	—	—	0.14	—	0.14
0315	—	—	—	0.02	0.09	0.02	—	—	0.06	0.28	0.92	1.37
0345	—	—	—	0.02	0.08	0.02	—	—	0.05	0.24	1.09	1.48
0415	—	—	—	0.02	0.08	0.02	—	—	—	0.26	0.76	1.12
0445	—	—	—	0.02	0.08	0.02	—	—	0.06	0.14	0.97	1.27
0521	—	—	—	0.02	0.08	0.01	—	—	—	0.19	0.85	1.14
0551	—	—	—	0.02	0.09	0.02	—	—	—	0.12	1.20	1.43
0614	—	—	—	—	0.02	0.03	—	—	—	—	0.20	0.22
0635	—	—	—	0.02	0.07	0.02	—	—	—	—	0.73	0.82

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/0000	—	—	—	—	0.15	—	—	—	0.07	—	1.95	2.17
TM/0400	—	—	0.24	—	—	—	—	—	—	0.10	2.75	3.09

REMARKS/ VISITORS:

Tunnel muck dumped intermittently during graveyard shift.

No tunnel muck hauled from site during graveyard shift.

P. Conheady (Gonzales Electrical Contractors) visited trailer at 0026 hrs. to inquire about methane concentrations detected by H&A during tunnel air monitoring. P. Micciche (H&A) reported that methane concentrations detected during the swing shift on 7 May were within the range of concentrations generally observed during tunnel air monitoring for the project.

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. METHANE CONCENTRATIONS EXPRESSED IN PERCENT BY VOLUME. METHANE CONCENTRATION VALUES NOT INCLUDED IN TOTAL DETECTED COLUMN.

DAILY FIELD REPORT

PROJECT:	STATE ST. - MT. HOPE TUNNEL Rochester, New York	DATE: 8 May 1990
CLIENT:	STV/Seelye Stevenson Value & Knecht	PAGE: 1 of 2
CONTRACTOR:	GGF Constructors	FILE: 7433-82
WEATHER:	Partly Cloudy 70°	

CONTRACTOR ACTIVITIES:

Mined TBM tunnel from Station 70+79 to Station 71+02 (day shift), from 71+02 to 71+65 (swing shift), and from 71+65 to 72+33 (graveyard shift).

Hauled tunnel muck intermittently until approximately 1300 hrs. 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 0700 to 1447 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.

Conducted headspace screening on two tunnel seep samples obtained by F. Amos (H&A) and E. Young (H&A) at Stations 69+74 and 66+88.

No samples were obtained from Sites 15, 27 and 28 as no excavation was performed during the day shift.

S. Parker (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 1511 to 2246 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.

Conducted headspace screening on two tunnel seep samples obtained by F. Amos (H&A) and E. Young (H&A) at Stations 58+92 and 10+78.

PROJECT: STATE ST. - MT. HOPE TUNNEL DATE: 8 May 1990
 Rochester, New York PAGE: 2 of 2
CLIENT: STV/Seelye Stevenson Value & FILE: 7433-82
 Knecht

Discussed status of tunnel seep sampling with F. Amos. Learned that seep sampling has been conducted in accordance with the 1 March 1990 workplan in all intervals where seeps were encountered to date. The distance between seep samples exceeded that required by the workplan in several intervals where no seeps were present.

P. Micciche (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 2316 to 0657 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.

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.

<u>FIELD REPRESENTATIVE</u>	<u>TIME ON SITE</u>
W. Lanik	0700-1515 (8.25 hrs.)
S. Parker	1500-2315 (8.25 hrs.)
P. Micciche	2300-0700 (8.0 hrs.)

DISTRIBUTION

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


H&A OF NEW YORK

SHIFT DATA TABLE

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

TUNNEL HEADINGS AT
 START: 70 + 79
 END: 71 + 02
 ADVANCE: 23

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 8 May 1990
 SHIFT: Day
 DFR NO.: 55

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 ^s *	TOTAL DETECTED
0700	—	—	—	0.03	0.09	0.02	—	—	0.07	0.23	0.90	1.32
0736	—	—	—	—	0.04	0.01	—	0.04	0.07	0.13	0.10	0.38
0809	—	—	—	0.02	0.06	0.01	—	—	0.06	0.10	0.73	0.97
0845	—	—	—	0.03	0.10	0.01	—	0.06	0.11	0.35	0.79	1.44
0910	—	—	—	—	0.03	0.01	—	0.03	0.06	0.24	0.11	0.47
0942	—	—	—	0.02	0.09	tr	—	—	0.08	0.18	0.86	1.23
1010	—	—	—	—	0.02	tr	—	—	—	—	0.11	0.13
1042	—	—	—	—	0.02	tr	—	—	—	0.15	0.11	0.28
1118	—	—	—	—	—	tr	—	—	—	—	0.08	0.08
1148	—	—	—	—	—	tr	—	—	0.02	—	0.08	0.10
1219	—	—	—	—	—	tr	—	—	—	—	0.03	0.03
1249	—	—	—	—	—	tr	—	—	—	—	0.03	0.03
1311	—	—	—	—	—	tr	—	—	—	—	0.03	0.03
1344	—	—	—	—	—	—	—	—	—	—	—	—
1417	—	—	—	—	—	0.02	—	—	—	—	—	—
1447	—	—	—	0.02	0.08	0.01	—	—	0.07	—	0.67	0.84

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 ^s *	TOTAL DETECTED
TM/0950	—	—	—	0.12	0.16	—	—	—	0.06	0.08	2.38	2.80
TS/0935	—	—	—	—	—	—	—	—	—	—	1.34	1.34
TS/0945	—	—	—	—	0.03	—	—	—	0.01	—	6.00	6.04
TM/1320	—	—	—	0.04	0.07	—	—	—	0.03	—	0.83	0.97
1203cg	—	—	—	—	—	—	—	—	—	—	—	—
1233aa	—	—	—	—	—	—	—	—	—	—	—	—

REMARKS/ VISITORS:

Tunnel muck dumped intermittently during day shift.

Tunnel muck hauled from site intermittently until approximately 1300 hrs. during day shift.

E. Young and F. Amos (H&A) visited trailer at 0905 hrs. to obtain vials for tunnel seep sampling.

Returned at 1230 hrs. to deliver tunnel seep samples TS/0935, TS/0945, and TS/1000. These

samples were collected from seeps at Stations 69+74, 66+88, and 58+92 respectively.

No soil samples were obtained from Sites 15, 27, and 28 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. (tr) INDICATES METHANE DETECTED AT CONCENTRATIONS LESS THAN 0.01 PERCENT.
6. METHANE CONCENTRATIONS EXPRESSED IN PERCENT BY VOLUME. METHANE CONCENTRATION VALUES NOT INCLUDED IN TOTAL DETECTED COLUMN.

SHIFT DATA TABLE

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

TUNNEL HEADINGS AT
 START: 71 + 02
 END: 71 + 65
 ADVANCE: 63

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 8 May 1990
 SHIFT: Swing
 DFR NO.: 55

TUNNEL AIR SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						TOTAL DETECTED
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN*	
1511	--	--	--	0.02	0.07	0.01	--	--	0.04	--	0.87	1.00
1601	--	--	--	0.02	0.07	0.02	--	--	--	--	0.95	1.04
1643	--	--	--	--	--	0.01	--	--	--	--	0.06	0.06
1718	--	--	--	0.02	0.06	--	--	--	0.06	0.15	0.90	1.19
1759	--	--	--	0.02	0.07	--	--	--	0.05	0.26	1.23	1.63
1848	--	--	--	0.02	0.07	--	--	--	0.06	0.16	1.49	1.80
1927	--	--	--	0.02	0.07	--	--	--	0.05	0.17	1.50	1.81
2004	--	--	--	--	--	--	--	--	--	0.78	0.84	1.62
2026	--	--	--	0.02	0.09	--	--	--	0.06	0.10	0.90	1.17
2104	--	--	--	0.02	0.07	0.02	--	--	--	0.24	1.30	1.63
2146	--	--	--	0.02	0.09	0.01	--	--	0.09	0.40	1.12	1.72
2220	--	--	--	0.02	0.08	0.01	--	--	0.08	0.39	1.37	1.94
2348	--	--	--	0.02	0.09	0.02	--	--	0.08	0.38	1.28	1.85

TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE TIME	TARGET COMPOUNDS					OTHERS						TOTAL DETECTED
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN*	
TS/1000	--	--	--	--	--	--	--	--	--	--	0.04	0.04
TS/1515	--	--	--	--	--	--	--	--	--	--	--	--
TM/1730	--	--	--	--	0.25	--	--	--	0.10	0.28	4.67	5.30
TM/2106	--	--	--	0.17	0.22	--	--	--	0.91	0.30	3.03	4.63

REMARKS/ VISITORS:

Tunnel muck dumped intermittently during swing shift.

No tunnel muck hauled from site during swing shift.

F. Amos (H&A) visited trailer at 1530 hrs. to deliver tunnel seep sample TS/1515, collected at

Station 10+78. Amos reported that seep sampling has been performed in accordance with the

1 March 1990 workplan in all intervals where seeps were encountered to date. No seeps were

present in several intervals.

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. METHANE CONCENTRATIONS EXPRESSED IN PERCENT BY VOLUME. METHANE CONCENTRATION VALUES NOT INCLUDED IN TOTAL DETECTED COLUMN.

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: 71 + 65
 END: 72 + 33
 ADVANCE: 68

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 8-9 May 1990
 SHIFT: Graveyard
 DFR NO.: 55

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 ^s	TOTAL DETECTED
2316	--	--	--	0.02	0.08	0.02	--	--	--	0.29	1.39	1.78
0002	--	--	--	--	0.06	0.02	--	--	--	0.31	0.73	1.10
0120	--	--	--	0.02	0.07	0.02	--	--	--	0.26	1.37	1.72
0150	--	--	--	0.02	0.08	0.02	--	--	--	0.21	1.89	2.20
0234	--	--	--	0.02	0.07	0.02	--	--	0.05	--	1.88	2.02
0336	--	--	--	0.03	0.15	0.02	--	0.03	0.10	0.59	2.09	2.99
0356	--	--	--	--	0.03	0.02	--	--	--	0.24	0.69	0.96
0416	--	--	--	0.03	0.09	0.02	--	--	0.08	0.26	1.88	2.34
0436	--	--	--	0.03	0.11	0.02	--	--	0.08	0.25	2.00	2.47
0456	--	--	--	--	0.02	0.02	--	--	--	0.22	0.60	0.84
0540	--	--	--	--	0.06	0.02	--	--	--	--	0.57	0.63
0619	--	--	--	0.03	0.09	0.02	--	--	--	--	1.87	1.99
0637	--	--	--	--	0.14	0.02	--	--	0.05	0.41	1.95	2.55
0657	--	--	--	--	0.02	0.02	--	--	--	0.19	0.34	0.55

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 ^s	TOTAL DETECTED
TM/2310	--	--	--	--	0.18	--	--	--	--	--	2.78	2.96
TM/0150	--	--	--	--	0.18	--	--	--	0.05	--	4.50	4.73

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. METHANE CONCENTRATIONS EXPRESSED IN PERCENT BY VOLUME. METHANE CONCENTRATION VALUES NOT INCLUDED IN TOTAL DETECTED COLUMN.

DAILY FIELD REPORT

PROJECT:	STATE ST. - MT. HOPE TUNNEL Rochester, New York	DATE: 9 May 1990
CLIENT:	STV/Seelye Stevenson Value & Knecht	PAGE: 1 of 2
CONTRACTOR:	GCF Constructors	FILE: 7433-82
WEATHER:	Partly Cloudy 78°	

CONTRACTOR ACTIVITIES:

Mined TBM tunnel from Station 72+33 to Station 72+61 (day shift), from 72+61 to 73+05 (swing shift), and from 73+05 to 73+73 (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 0713 to 1437 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.

Discussed results of headspace screening performed on tunnel seep samples collected on 8 May 1990 with J. Ford (SSVK) and H. Hartsough (SSVK). Informed them that concentrations of target compounds did not exceed action threshold levels set by the 1 March 1990 workplan.

No samples were obtained from Sites 15, 27, and 28 as no excavation was performed during the day shift.

S. Parker (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 1506 to 2248 hrs. Conducted 12 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 2316 to 0637 hrs. Conducted 14 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

PROJECT:	STATE ST. - MT. HOPE TUNNEL Rochester, New York	DATE:	9 May 1990
CLIENT:	STV/Seelye Stevenson Value & Knecht	PAGE:	2 of 2
		FILE:	7433-82

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

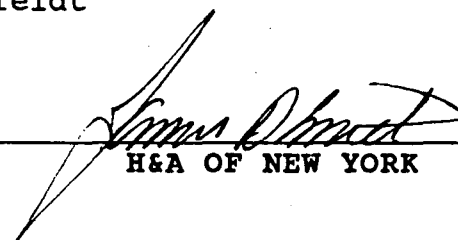
TEST DATA SUMMARY:

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.

<u>FIELD REPRESENTATIVE</u>	<u>TIME ON SITE</u>
W. Lanik	0700-1515 (8.25 hrs.)
S. Parker	1500-2300 (8.0 hrs.)
P. Micciche	2300-0700 (8.0 hrs.)

DISTRIBUTION

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


 H&A OF NEW YORK

SHIFT DATA TABLE

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

TUNNEL HEADINGS AT
 START: 72 + 33
 END: 72 + 61
 ADVANCE: 28

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 9 May 1990
 SHIFT: Day
 DFR NO.: 56

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
0713	--	--	--	--	--	0.01	--	--	--	0.12	0.28	0.40
0735	--	--	--	--	--	0.01	--	--	--	--	0.19	0.19
0805	--	--	--	--	0.06	0.01	--	--	--	--	0.16	0.22
0835	--	--	--	--	--	0.01	--	--	--	--	0.16	0.16
0905	--	--	--	--	0.02	0.01	--	--	--	--	0.20	0.22
0938	--	--	--	--	0.02	0.01	--	--	--	--	0.15	0.17
1024	--	--	--	0.02	0.09	0.01	--	--	0.04	0.45	0.98	1.58
1113	--	--	--	--	0.03	0.01	--	--	--	--	0.18	0.21
1146	--	--	--	--	0.03	0.01	--	--	--	--	0.12	0.15
1227	--	--	--	--	0.03	0.01	--	--	--	--	0.13	0.16
1259	--	--	--	--	0.04	0.01	--	0.07	0.08	0.29	0.14	0.62
1327	--	--	--	--	0.06	0.01	--	--	0.10	--	0.20	0.36
1357	--	--	--	--	0.04	0.01	--	--	0.07	0.37	0.12	0.60
1437	--	--	--	--	0.03	--	--	--	0.03	0.20	1.66	1.92
0922aa	--	--	--	--	0.02	--	--	--	--	--	0.38	0.40

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/0850	--	--	--	0.11	0.18	--	--	--	0.08	0.06	3.18	3.61
TM/1340	--	--	--	0.08	0.14	--	--	--	0.07	0.04	1.86	2.19

REMARKS/ VISITORS:

Tunnel muck dumped intermittently during day shift.

Tunnel muck hauled from site intermittently during day shift.

J. Ford (SSVK) and H. Hartsough (SSVK) visited trailer at 0800 hrs. to inquire about results from headspace screening conducted on tunnel seep samples collected on 8 May 1990. W. Lanik (H&A) reported that concentrations of the target compounds did not exceed action threshold levels in the 1 March 1990 workplan.

No samples were obtained from Sites 15,27, and 28 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. (aa) INDICATES AMBIENT AIR BLANK ANALYSIS.
4. METHANE CONCENTRATIONS EXPRESSED IN PERCENT BY VOLUME. METHANE CONCENTRATION VALUES NOT INCLUDED IN TOTAL DETECTED COLUMN.

SHIFT DATA TABLE

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

TUNNEL HEADINGS AT
 START: 72 + 61
 END: 73 + 05
 ADVANCE: 44

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 9 May 1990
 SHIFT: Swing
 DFR NO.: 56

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 ^S	TOTAL DETECTED
1506	—	—	—	—	—	—	—	—	—	—	1.51	1.51
1551	—	—	—	—	0.04	—	—	—	—	0.24	0.89	1.17
1626	—	—	—	—	0.03	—	—	—	—	—	1.96	1.99
1735	—	—	—	0.02	0.10	—	—	—	0.06	0.18	2.87	3.23
1817	—	—	—	0.02	0.09	—	—	—	0.08	0.40	1.59	2.18
1856	—	—	—	—	0.03	0.02	—	—	—	—	0.26	0.29
1933	—	—	—	0.02	0.09	0.01	—	—	0.07	0.28	1.09	1.55
2003	—	—	—	—	—	0.01	—	—	—	0.12	0.16	0.28
2050	—	—	—	0.02	0.09	0.01	—	—	0.08	—	1.15	1.34
2121	—	—	—	0.02	0.08	0.01	—	—	0.06	—	0.97	1.13
2212	—	—	—	—	0.02	tr	—	—	—	—	0.13	0.15
2248	—	—	—	—	0.02	tr	—	—	—	—	0.06	0.08
2138aa	—	—	—	—	0.04	—	—	—	—	—	0.17	0.21
2230cg	—	—	—	—	—	—	—	—	—	—	—	—

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 ^S	TOTAL DETECTED
TM/1535	—	—	—	0.15	0.22	—	—	—	0.19	—	3.54	4.10
TM/1925	—	—	—	0.13	0.19	—	—	—	0.10	—	2.55	2.97

REMARKS/ 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. (aa) INDICATES AMBIENT AIR BLANK ANALYSIS.
5. (tr) INDICATES METHANE DETECTED AT CONCENTRATIONS LESS THAN 0.01 PERCENT.
6. METHANE CONCENTRATIONS EXPRESSED IN PERCENT BY VOLUME. METHANE CONCENTRATION VALUES NOT INCLUDED IN TOTAL DETECTED COLUMN.

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: 73 + 05
 END: 73 + 73
 ADVANCE: 68

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 9-10 May 1990
 SHIFT: Graveyard
 DFR NO.: 56

TUNNEL AIR SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						TOTAL DETECTED
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN*	
2316	--	--	--	--	--	tr	--	--	--	--	0.13	0.13
0014	--	--	--	0.02	0.10	0.01	--	--	0.08	--	1.31	1.51
0031	--	--	--	--	--	0.01	--	--	--	--	0.10	0.10
0130	--	--	--	--	0.08	0.02	--	--	--	0.21	1.08	1.37
0204	--	--	--	--	--	0.01	--	--	--	0.21	0.15	0.36
0234	--	--	--	--	0.08	0.02	--	--	--	--	0.91	0.99
0304	--	--	--	--	0.08	0.02	--	--	0.06	--	1.11	1.25
0334	--	--	--	--	--	0.01	--	--	--	--	0.30	0.30
0404	--	--	--	--	--	0.01	--	--	--	--	0.19	0.19
0450	--	--	--	--	0.06	tr	--	--	--	--	0.40	0.46
0521	--	--	--	--	0.05	tr	--	--	--	--	0.46	0.51
0603	--	--	--	--	0.03	tr	--	--	--	--	0.05	0.08
0620	--	--	--	--	0.05	tr	--	--	0.35	--	0.45	0.85
0637	--	--	--	--	0.03	tr	--	--	--	--	0.11	0.14

TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE	TARGET COMPOUNDS					OTHERS						TOTAL DETECTED
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN*	
TM/0025	--	--	--	0.08	0.14	--	--	--	0.09	--	1.87	2.18
TM/0435	--	--	--	--	0.26	--	--	--	--	0.07	4.75	5.08

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. METHANE CONCENTRATIONS EXPRESSED IN PERCENT BY VOLUME. METHANE CONCENTRATION VALUES NOT INCLUDED IN TOTAL DETECTED COLUMN.
4. (tr) INDICATES METHANE DETECTED AT CONCENTRATIONS LESS THAN 0.01 PERCENT.

DAILY FIELD REPORT

PROJECT:	STATE ST. - MT. HOPE TUNNEL Rochester, New York	DATE: 10 May 1990
CLIENT:	STV/Seelye Stevenson Value & Knecht	PAGE: 1 of 2
CONTRACTOR:	GCF Constructors	FILE: 7433-82
WEATHER:	Partly Cloudy, Rain 65°	

CONTRACTOR ACTIVITIES:

Mined TBM tunnel from Station 73+73 to Station 74+11 (day shift), from 74+11 to 74+46 (swing shift), and from 74+46 to 75+00 (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 0731 to 1448 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.

Obtained routine weekly tunnel muck sample TM1230(0510) in accordance with the 1 March 1990 workplan, and delivered to General Testing Co. for analysis.

Conducted headspace screening on tunnel seep sample obtained by J. Ford (SSVK) and Hyland Hartsough (SSVK) at Station 69+74 (Downhole #11).

No samples were obtained from Sites 15, 27, and 28 as no excavation was performed during the day shift.

S. Parker (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 1615 to 2250 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>PROJECT: STATE ST. - MT. HOPE TUNNEL Rochester, New York</p> <p>CLIENT: STV/Seelye Stevenson Value & Knecht</p>	<p>DATE: 10 May 1990</p> <p>PAGE: 2 of 2</p> <p>FILE: 7433-82</p>
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P. Micciche (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 1119 to 0621 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.

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.

<u>FIELD REPRESENTATIVE</u>	<u>TIME ON SITE</u>
W. Lanik	0700-1455 (8.25 hrs.)
S. Parker	1500-2315 (8.25 hrs.)
P. Micciche	2300-0700 (8.0 hrs.)

DISTRIBUTION

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

 H&A OF NEW YORK

SHIFT DATA TABLE

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

TUNNEL HEADINGS AT
 START: 73 + 73
 END: 74 + 11
 ADVANCE: 38

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 10 May 1990
 SHIFT: Day
 DFR NO.: 57

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 ^s *	TOTAL DETECTED
0731	--	--	--	--	0.04	tr	--	--	--	0.15	--	0.19
0758	--	--	--	--	0.03	--	--	--	--	--	0.02	0.05
0829	--	--	--	--	0.02	--	--	--	--	--	0.01	0.03
0903	--	--	--	--	--	--	--	--	--	--	--	--
0930	--	--	--	--	--	--	--	--	--	--	--	--
1000	--	--	--	--	0.03	tr	--	--	--	--	0.17	0.20
1030	--	--	--	--	0.03	--	--	--	0.03	0.18	--	0.24
1115	--	--	--	--	0.03	tr	--	--	--	--	0.07	0.10
1145	--	--	--	--	0.03	tr	--	--	--	--	0.13	0.16
1215	--	--	--	--	0.03	tr	--	--	--	--	0.11	0.14
1245	--	--	--	--	--	tr	--	--	--	--	--	--
1315	--	--	--	--	0.03	tr	--	--	--	--	0.09	0.12
1344	--	--	--	--	--	--	--	--	--	--	--	--
1415	--	--	--	--	0.02	--	--	--	--	--	0.03	0.05
1448	--	--	--	--	0.03	tr	--	0.04	0.05	0.20	--	0.32

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 ^s *	TOTAL DETECTED
TS/0930	--	--	--	--	--	--	--	--	--	--	0.20	0.20
TM/1045	--	--	--	0.15	0.22	--	--	--	0.10	--	1.71	2.18
TM/1230	--	--	--	0.10	0.13	--	--	--	0.06	0.04	2.23	2.56
0717aa	--	--	--	--	0.05	--	--	--	--	--	0.04	0.09
1100aa	--	--	--	--	0.02	--	--	--	--	--	0.01	0.03

REMARKS/ VISITORS:

Tunnel muck dumped intermittently during day shift.

Tunnel muck hauled from site intermittently during day shift.

J. Ford and H. Hartsough (SSVK) visited trailer at 0845 hrs. to pick up containers for tunnel seep sampling. Returned

at 1030 hrs. to deliver tunnel seep sample TS/0930 collected at Station 69+74 (Downhole #11) in conjunction with

the routine seep sampling program. W. Lanik (H&A) delivered TS/0930 to General Testing Co. for analysis.

Obtained routine weekly muck sample TM 1230 (0510) and delivered to General Testing Co. for analysis.

No samples were obtained from Sites 15,27, and 28 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. (aa) INDICATES AMBIENT AIR BLANK ANALYSIS.
 4. (tr) INDICATES METHANE DETECTED AT CONCENTRATIONS LESS THAN 0.01 PERCENT.
 5. METHANE CONCENTRATIONS EXPRESSED IN PERCENT BY VOLUME. METHANE CONCENTRATION VALUES NOT INCLUDED IN TOTAL DETECTED COLUMN.

SHIFT DATA TABLE

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

TUNNEL HEADINGS AT
 START: 74 + 11
 END: 74 + 46
 ADVANCE: 35

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 10 May 1990
 SHIFT: Swing
 DFR NO.: 57

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
1516	--	--	--	--	--	--	--	--	--	0.10	--	0.10
1545	--	--	--	--	--	--	--	--	--	--	--	--
1827	--	--	--	--	--	tr	--	--	--	--	--	--
1707	--	--	--	--	--	tr	--	--	--	--	--	--
1736	--	--	--	--	--	tr	--	--	--	--	--	--
1819	--	--	--	--	--	tr	--	--	--	--	--	--
1903	--	--	--	--	--	tr	--	--	--	--	--	--
1936	--	--	--	--	--	tr	--	--	--	--	--	--
2027	--	--	--	--	--	--	--	--	--	--	0.06	0.06
2112	--	--	--	--	0.02	tr	--	--	--	0.09	0.90	1.01
2156	--	--	--	--	--	tr	--	--	--	--	0.03	0.03
2214	--	--	--	--	--	tr	--	--	--	--	0.03	0.03
2250	--	--	--	--	0.02	tr	--	--	--	--	0.08	0.10

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/1530	--	--	--	0.20	0.30	--	--	--	0.14	0.03	10.09	10.76
TM/2045	--	--	--	0.13	0.21	--	--	--	0.10	--	6.68	7.12

REMARKS/ VISITORS:

Tunnel muck dumped intermittently after approximately 2000 hrs. during swing shift.

No tunnel muck hauled from site 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. (tr) INDICATES METHANE DETECTED AT CONCENTRATIONS LESS THAN 0.01 PERCENT.
 4. METHANE CONCENTRATIONS EXPRESSED IN PERCENT BY VOLUME. METHANE CONCENTRATION VALUES NOT INCLUDED IN TOTAL DETECTED COLUMN.

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: 74 + 48
 END: 75 + 00
 ADVANCE: 54

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 10-11 May 1990
 SHIFT: Graveyard
 DFR NO.: 57

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
1119	--	--	--	--	0.01	tr	--	--	--	--	0.03	0.04
0028	--	--	--	--	--	--	--	--	--	--	--	--
0052	--	--	--	--	0.02	0.01	--	--	--	--	0.01	0.03
0111	--	--	--	--	--	--	--	--	--	--	0.01	0.01
0129	--	--	--	--	--	0.05	--	--	--	--	0.01	0.01
0149	--	--	--	--	0.02	0.01	--	--	--	--	0.01	0.03
0210	--	--	--	--	--	0.01	--	--	--	--	0.01	0.01
0230	--	--	--	--	--	0.01	--	--	--	--	0.01	0.01
0300	--	--	--	--	0.01	0.01	--	--	--	--	--	0.01
0330	--	--	--	--	0.02	0.01	--	--	--	--	0.01	0.03
0400	--	--	--	--	0.02	--	--	--	0.01	--	0.01	0.04
0515	--	--	--	--	0.02	tr	--	--	--	0.03	0.01	0.08
0558	--	--	--	--	--	--	--	--	--	--	--	--
0621	--	--	--	--	0.02	0.01	--	--	--	--	0.01	0.03
0437aa	--	--	--	--	--	--	--	--	--	--	--	--
0456aa	--	--	--	--	0.02	--	--	--	--	--	--	0.02

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/1220	--	--	--	--	0.30	--	--	--	0.10	--	6.69	7.09
TM/0500	--	--	--	0.17	0.21	--	--	--	0.09	--	4.07	4.54

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. (aa) INDICATES AMBIENT AIR BLANK ANALYSIS.
 4. (tr) INDICATES METHANE DETECTED AT CONCENTRATIONS LESS THAN 0.01 PERCENT.
 5. METHANE CONCENTRATIONS EXPRESSED IN PERCENT BY VOLUME. METHANE CONCENTRATION VALUES NOT INCLUDED IN TOTAL DETECTED COLUMN.

DAILY FIELD REPORT

PROJECT:	STATE ST. - MT. HOPE TUNNEL Rochester, New York	DATE: 11 May 1990
CLIENT:	STV/Seelye Stevenson Value & Knecht	PAGE: 1 of 2
CONTRACTOR:	GCF Constructors	FILE: 7433-82
WEATHER:	Cloudy, rain 50°	

CONTRACTOR ACTIVITIES:

Mined TBM tunnel from Station 75+00 to Station 75+43 (day shift), and from 75+43 to 76+14 (swing shift). No tunnel mining was performed during the graveyard shift.

Hauled tunnel muck intermittently during the day shift. Dumped tunnel muck on the spoil pile adjacent to Control Structure 41 intermittently during the day and swing shifts, and until approximately 0130 hrs. during the graveyard shift.

FIELD REPRESENTATIVE ACTIVITIES:

W. Lanik (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 0703 to 0932 hrs. and 1305 to 1439 hrs. Conducted 9 tunnel exhaust air screenings using the Photovac 10s70 gas chromatograph.

Tunnel air screening was discontinued from 0932 to 1305 hrs. to permit maintenance of gas chromatograph.

The surface tunnel air exhaust fan did not operate from 1310 to 1346 hrs. and no tunnel air samples were obtained during this period.

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

Discussed results of headspace analysis performed on tunnel seep sample TS/0930 collected on 10 May 1990 with J. Ford (SSVK). Informed him that concentrations of target compounds did not exceed action threshold levels in the 1 March 1990 workplan.

No samples were obtained from Sites 15, 27, and 28 as no excavation was performed during the day shift.

PROJECT:	STATE ST. - MT. HOPE TUNNEL Rochester, New York	DATE:	11 May 1990
CLIENT:	STV/Seelye Stevenson Value & Knecht	PAGE:	2 of 2
		FILE:	7433-82

S. Parker (H&A) performed routine air monitoring of the tunnel ventilation exhaust from 1513 to 2250 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 2312 to 0547 hrs. Conducted 14 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.

Discussed results of headspace analysis on tunnel air samples with P. Schleyer (GCF) at approximately 0119 hrs. Informed him that concentrations of target compounds in the tunnel air sample obtained at 0110 hrs. did not exceed action threshold levels in the 1 March 1990 workplan.

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.


FIELD REPRESENTATIVE

TIME ON SITE

W. Lanik	0700-1530 (8.5 hrs.)
S. Parker	1500-2300 (8.0 hrs.)
P. Micciche	2300-0700 (8.0 hrs.)

DISTRIBUTION

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


H&A OF NEW YORK

SHIFT DATA TABLE

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

TUNNEL HEADINGS AT
 START: 75 + 00
 END: 75 + 43
 ADVANCE: 43

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 11 May 1990
 SHIFT: Day
 DFR NO.: 58

TUNNEL AIR SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						TOTAL DETECTED
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN*	
0703	--	--	--	--	--	tr	--	--	--	--	0.05	0.05
0732	--	--	--	--	0.01	tr	--	--	--	--	0.10	0.11
0802	--	--	--	--	--	--	--	--	--	--	0.12	0.12
0832	--	--	--	--	--	0.01	--	--	--	--	0.13	0.13
0902	--	--	--	--	0.01	--	--	--	--	--	0.30	0.31
0932	--	--	--	--	--	tr	--	--	--	--	0.12	0.12
1305	--	--	--	--	0.01	--	--	0.05	--	--	0.16	0.22
1407	--	--	--	--	0.01	--	--	--	--	--	0.22	0.23
1439	--	--	--	--	0.02	--	--	--	--	0.13	0.38	0.53
1234aa	--	--	--	--	--	--	--	--	--	--	0.07	0.07
1250cg	--	--	--	--	--	--	--	--	--	--	0.08	0.08

TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE	TARGET COMPOUNDS					OTHERS						TOTAL DETECTED
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	M-XYLENE BENZENE	O-XYLENE	STYRENE	UNKNOWN*	
TM/1010	--	--	--	0.18	0.28	--	--	0.15	--	0.45	6.50	7.58
TM/1310	--	--	--	0.18	0.30	--	--	0.15	0.21	--	3.86	4.70

REMARKS/ VISITORS:

Tunnel muck dumped intermittently during day shift.

Tunnel muck hauled from site intermittently during day shift.

J. Talpey (H&A) and H. Thurston (H&A) visited trailer from 0940 to 1200 hrs. to replace the photoionization

lamp in the gas chromatograph, and no tunnel air samples were screened from 0932 to 1305 hrs.

Surface tunnel air exhaust fan inoperative from 1310 to 1346 hrs.

J. Ford (SSVK) visited the trailer at 1400 hrs. to inquire about results of headspace analysis performed on tunnel

seep sample TS/0930 collected on 10 May 1990. W. Lanik (H&A) informed him that concentrations of target

compounds did not exceed action threshold levels in the 1 March 1990 workplan.

No samples were obtained from Sites 15, 27, and 28 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:

- (*) UNIDENTIFIED CHROMATOGRAM PEAKS EXPRESSED IN TOLUENE EQUIVALENTS.
- COMPOUNDS LESS THAN 10 PPB NOT REPORTED.
- (cg) INDICATES CARRIER GAS BLANK ANALYSIS.
- (aa) INDICATES AMBIENT AIR BLANK ANALYSIS.
- (tr) INDICATES METHANE DETECTED AT CONCENTRATIONS LESS THAN 0.01 PERCENT.
- METHANE CONCENTRATIONS EXPRESSED IN PERCENT BY VOLUME. METHANE CONCENTRATION VALUES NOT INCLUDED IN TOTAL DETECTED COLUMN.

SHIFT DATA TABLE

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

TUNNEL HEADINGS AT
 START: 75 + 43
 END: 76 + 14
 ADVANCE: 71

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 11 May 1990
 SHIFT: Swing
 DFR NO.: 58

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	--	--	--	--	--	--	--	--	--	--	0.13	0.13
1543	--	--	--	--	0.03	--	--	--	--	--	0.39	0.42
1615	--	--	--	0.02	0.08	--	--	--	0.07	0.08	1.42	1.87
1641	--	--	--	--	0.01	--	--	--	0.02	--	0.57	0.60
1716	--	--	--	--	0.01	--	--	--	--	--	0.40	0.41
1751	--	--	--	0.02	0.07	--	--	--	0.07	--	1.25	1.41
1828	--	--	--	0.02	0.08	--	--	--	0.08	0.09	1.45	1.72
1933	--	--	--	0.02	0.09	--	--	--	0.07	0.29	1.80	2.27
2003	--	--	--	0.02	0.07	--	--	--	0.08	0.34	1.45	1.96
2033	--	--	--	0.02	0.07	--	--	--	0.08	0.25	1.49	1.91
2103	--	--	--	0.02	0.08	--	--	--	0.07	--	1.44	1.61
2147	--	--	--	0.02	0.09	--	--	--	--	0.24	2.21	2.56
2217	--	--	--	0.02	0.02	--	--	--	--	0.12	1.84	2.00
2250	--	--	--	--	0.03	--	--	--	--	--	1.73	1.76

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/1515	--	--	--	0.14	0.21	--	--	--	0.13	0.03	3.63	4.14
TM/2035	--	--	--	0.11	0.17	--	--	--	0.11	--	2.43	2.82

REMARKS/ 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.

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: 78 + 14
 END: 78 + 14
 ADVANCE: 0

FILE: 7433-82
 PAGE: 1 OF 2
 DATE: 11-12 May 1990
 SHIFT: Graveyard
 DFR NO.: 58

TUNNEL AIR SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

TIME	TARGET COMPOUNDS					OTHERS						TOTAL DETECTED
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN*	
2312	--	--	--	0.02	0.13	--	--	--	--	0.32	2.42	2.89
2336	--	--	--	--	0.02	--	--	--	--	--	1.40	1.42
0013	--	--	--	--	0.03	--	--	--	--	0.25	1.29	1.57
0030	--	--	--	--	0.02	--	--	--	--	0.18	1.31	1.49
0110	--	--	--	--	0.02	--	--	--	--	0.25	1.07	1.34
0137	--	--	--	--	--	--	--	--	0.02	0.12	0.93	1.07
0217	--	--	--	--	--	--	--	--	--	0.18	0.78	0.94
0247	--	--	--	--	--	--	--	--	--	0.08	0.66	0.74
0317	--	--	--	--	--	--	--	--	--	0.08	0.58	0.84
0347	--	--	--	--	--	--	--	--	--	0.08	0.81	0.87
0417	--	--	--	--	--	--	--	--	--	--	0.48	0.48
0447	--	--	--	--	--	--	--	--	--	0.05	0.46	0.51
0617	--	--	--	--	--	--	--	--	--	0.08	0.44	0.50
0547	--	--	--	--	--	--	--	--	--	--	0.50	0.50

TUNNEL MUCK/ SHAFT/ GROUNDWATER SAMPLES

APPARENT VOLATILE ORGANIC COMPOUNDS DETECTED IN PPM

SAMPLE TYPE	TARGET COMPOUNDS					OTHERS						TOTAL DETECTED
	VINYL CHLORIDE	METHYLENE CHLORIDE	1,2-DCE	BENZENE	TOLUENE	METHANE (PERCENT)	HYDROGEN SULFIDE	ETHYL BENZENE	M-XYLENE	STYRENE	UNKNOWN*	
TM/0000	--	--	--	--	0.34	--	--	--	0.15	0.15	6.15	6.79

REMARKS/ VISITORS:

Tunnel muck dumped intermittently until approximately 0130 hrs. during graveyard shift.

No tunnel muck hauled from site during graveyard shift.

P. Schleyer (GCF) visited trailer at 0119 hrs. to obtain results of latest tunnel exhaust air analysis.

P. Micciche (H&A) informed him that concentrations of target compounds in the tunnel air sample obtained at 0110 hrs. did not exceed action threshold levels in the 1 March 1990 workplan.

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.