March 11, 2008

Ms. Sharon R. Fisher
Harley-Davidson Motor Company Operations, Inc.
1425 Eden Road
York, PA 17402

Re: 2007 Summary of Operation for
North Building 4 Soil Vapor Extraction System
Harley-Davidson Motor Company Operations, Inc.
SAIC Project 01-1633-00-8629-800

Dear Sharon:

Science Applications International Corporation (SAIC) is providing this letter to summarize operation of the North Building 4 (NB4) soil vapor extraction (SVE) system during 2007. The NB4 SVE system is located at the York, Pennsylvania, facility of Harley-Davidson Motor Company Operations, Inc. (Harley-Davidson). Through calendar year 2007, the system has been in operation for approximately 13 years (start-up occurred in May 1994).

The purpose of the SVE system is to extract soil vapor containing volatile organic compounds (VOCs) from up to five multi-level, vapor extraction wells (VEWs) located beneath the floor at the north end of Building 4. Each of the VEWs is connected via schedule 40 polyvinyl chloride (PVC) piping to a blower unit housed in a wooden shed located on the west side of Building 4 (refer to Figure 1). The blower unit applies a vacuum to the VEWs and transmits the extracted soil vapor via a 6-inch-diameter schedule 80 PVC underground pipe to Building 41 for treatment. The soil vapor is passed through either a thermal fume oxidizer (TFO) unit or a granular activated carbon (GAC) unit for destruction/absorption of the VOCs.

During 2007, the SVE system operated for a total of 8,173 hours (or 340.5 days) of a possible 8,760 hours (365 days). These data indicate that the SVE system was functional for approximately 93 percent of the time.

During 2007, SAIC performed monthly monitoring of the SVE system that included recording air flow data (refer to Table 1) and photoionization detector (PID) readings at up to seven vapor extraction points (refer to Figure 2). The seven locations that are sampled include EW-1 gravel, EW-1D, EW-2D, EW-3S, EW-4D, the gravel pit, and the total system influent (combined, prior to the blower). The remaining extraction points were shut off in early 2000 due to their very low VOC recoveries, and to enhance VOC recovery at the remaining locations. Data for four locations (EW-1D, EW-1 gravel, EW-2D and the gravel pit) showed minimal VOC recovery in 2007.

SAIC typically collects soil vapor samples from active vacuum extraction wells on a quarterly basis. Four sampling events (January, April, July, and October) were performed in 2007. The air samples were analyzed by VaporTech Services, Inc. of Valencia, Pennsylvania, for five VOCs:

- 1,1,1–Trichloroethane (TCA)
- Trichloroethene (TCE)
- Tetrachloroethene (PCE)
- cis-1,2-Dichloroethene (cis-1,2-DCE)
- Vinyl chloride

Table 2 summarizes the laboratory analytical results, while Figures 3 through 6 graphically display the historical VOC data by sampling location. The average total influent VOC concentration measured during 2007 (3.6 parts per million [ppm]) was slightly higher than the average influent VOC concentration measured in 2006 (2.4 ppm). However, this value is lower than pre-2003 concentrations (18.0 ppm in 2002). The historical range in VOC abundance (in the vapor influent), followed by the 2007 percent by volume in the influent, is summarized for each parameter below:

- TCA: historically has ranged from 52 to 76 percent; averaging 54 percent in 2007.
- TCE: has ranged from 17 to 30 percent; averaging 28 percent in 2007.
- PCE: has ranged from 5 to 21 percent; averaging 17 percent in 2007.
- cis-1,2-DCE: has ranged from 0.1 to 2 percent; averaging 1 percent in 2007.
- Vinyl chloride: this parameter was added to the analytical suite in 2003 due to its occurrence in groundwater at collection well CW-15A (close to the NB4 SVE system). Vinyl chloride has not been detected in air samples since 2003.

Based upon a review of gas chromatograph (GC) analysis and air flow data, SAIC estimates that approximately 70 pounds of VOCs were removed by the SVE system during 2007. This value is slightly lower than the quantity removed during calendar year 2006 (approximately 78 pounds). This apparent decrease in VOC removal is primarily due to the fact that the SVE system logged less run time in 2007 compared to 2006 (8,173 versus 8,455 hours). A cumulative VOC recovery of approximately 35,156 pounds has been recorded since system start-up (refer to Figure 7 and Table 1).

If you have any questions or comments regarding this letter, please contact the undersigned.

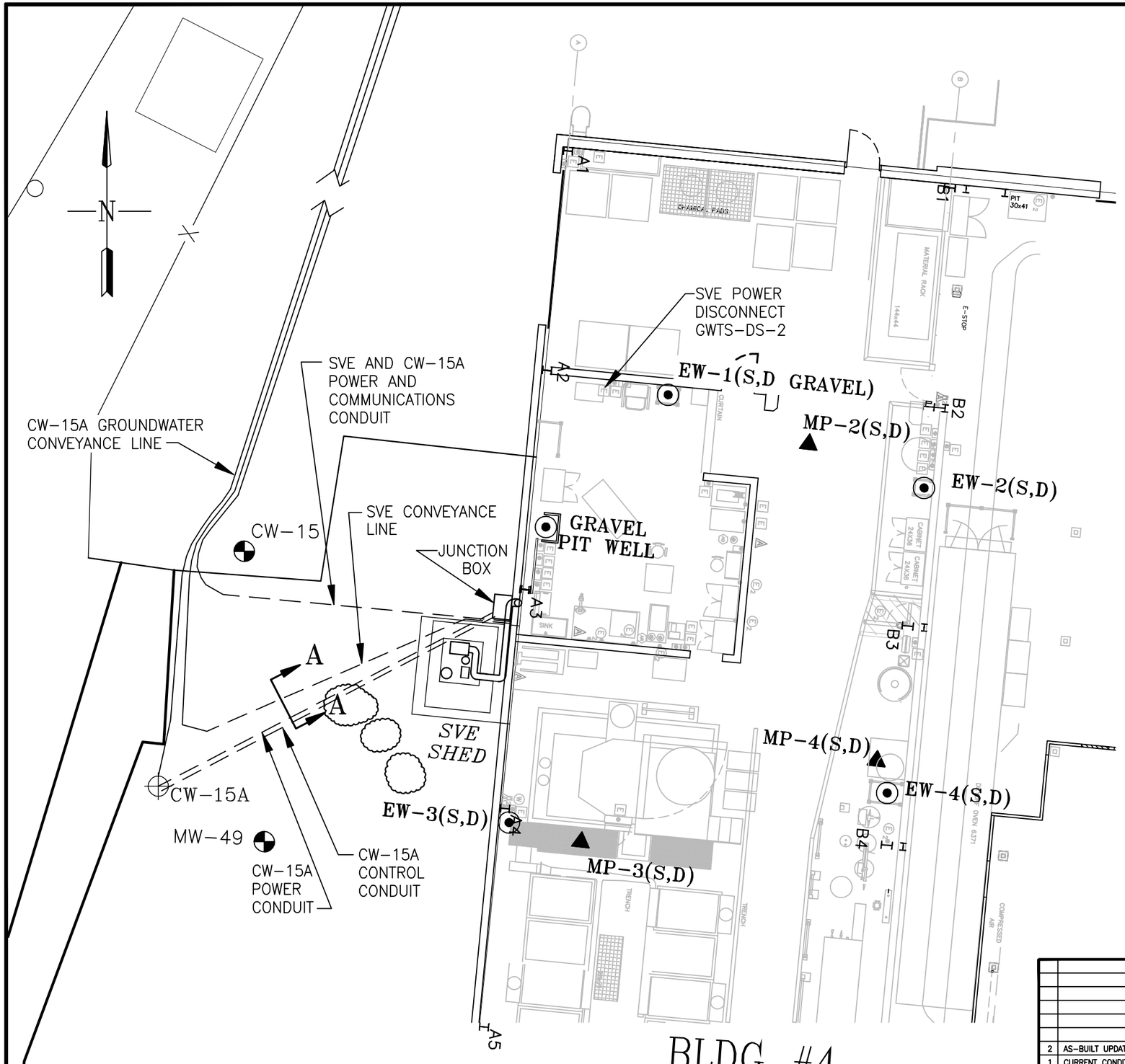
Very truly yours,

SCIENCE APPLICATIONS INTERNATIONAL CORPORATION

Scott L. McFeaters, P.G.
Project Manager

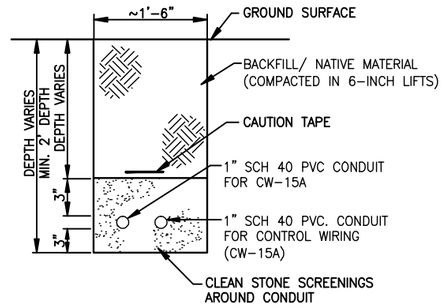
SLM:tms
cc: Ralph T. Golia – AMO Environmental Decisions
Stephen Snyder – SAIC

FIGURES



LEGEND

- EW-2(S,D) — SOIL VAPOR EXTRACTION WELL LOCATION AND DESIGNATION
- MP-2(S,D) — SOIL VAPOR EXTRACTION MONITORING POINT LOCATION AND DESIGNATION
- CW-15 — GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- CW-15A — GROUNDWATER COLLECTION WELL LOCATION AND DESIGNATION



TRENCH SECTION A-A

10' 0 10'
SCALE IN FEET

no.	description	date	by	approved
2	AS-BUILT UPDATES	12/07/07	RAM	SLM
1	CURRENT CONDITIONS	4/17/06	RAM	SLM

revisions

HARLEY-DAVIDSON MOTOR COMPANY OPERATIONS, INC.
YORK VEHICLE OPERATIONS
1425 EDEN ROAD, YORK, PA 17402

SOIL GAS EXTRACTION SYSTEM NORTH BUILDING 4 AREA

drawn	checked	approved	figure no.
RAM	SLM	SLM	1
date 12/07/07	date 03/11/08	date 03/11/08	
job no. 01-1633-00-8632-100	file no. OM2007-013.dwg		

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FIGURE 2
2007 North Building 4 SVE PID Measurements

Harley-Davidson Motor Company Operations, Inc.
York Vehicle Operations
1425 Eden Road, York PA 17402

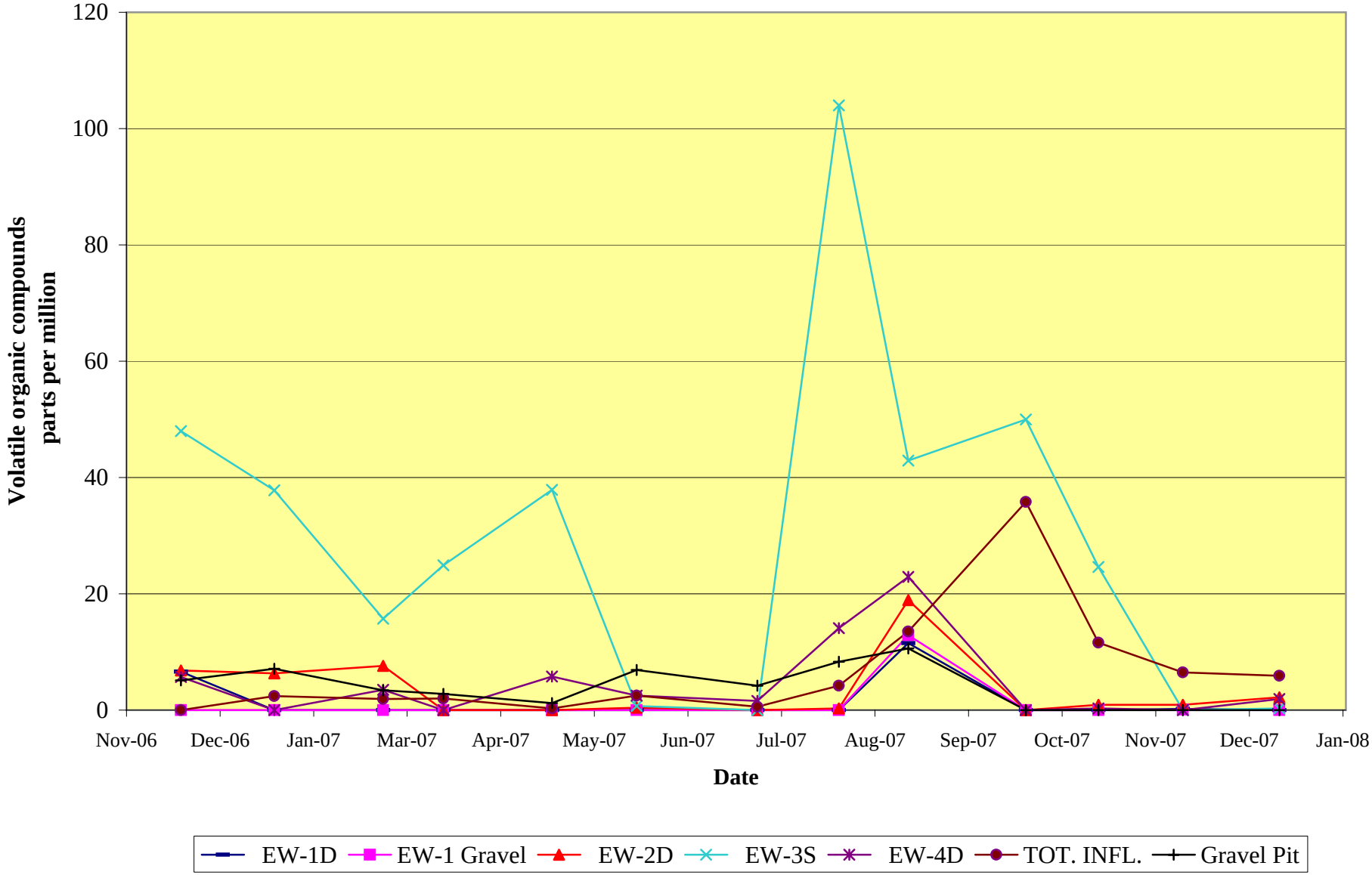


FIGURE 3
Historical 1,1,1-Trichloroethane (TCA) Concentrations

Harley-Davidson Motor Company Operations, Inc.
York Vehicle Operations
1425 Eden Road, York PA 17402

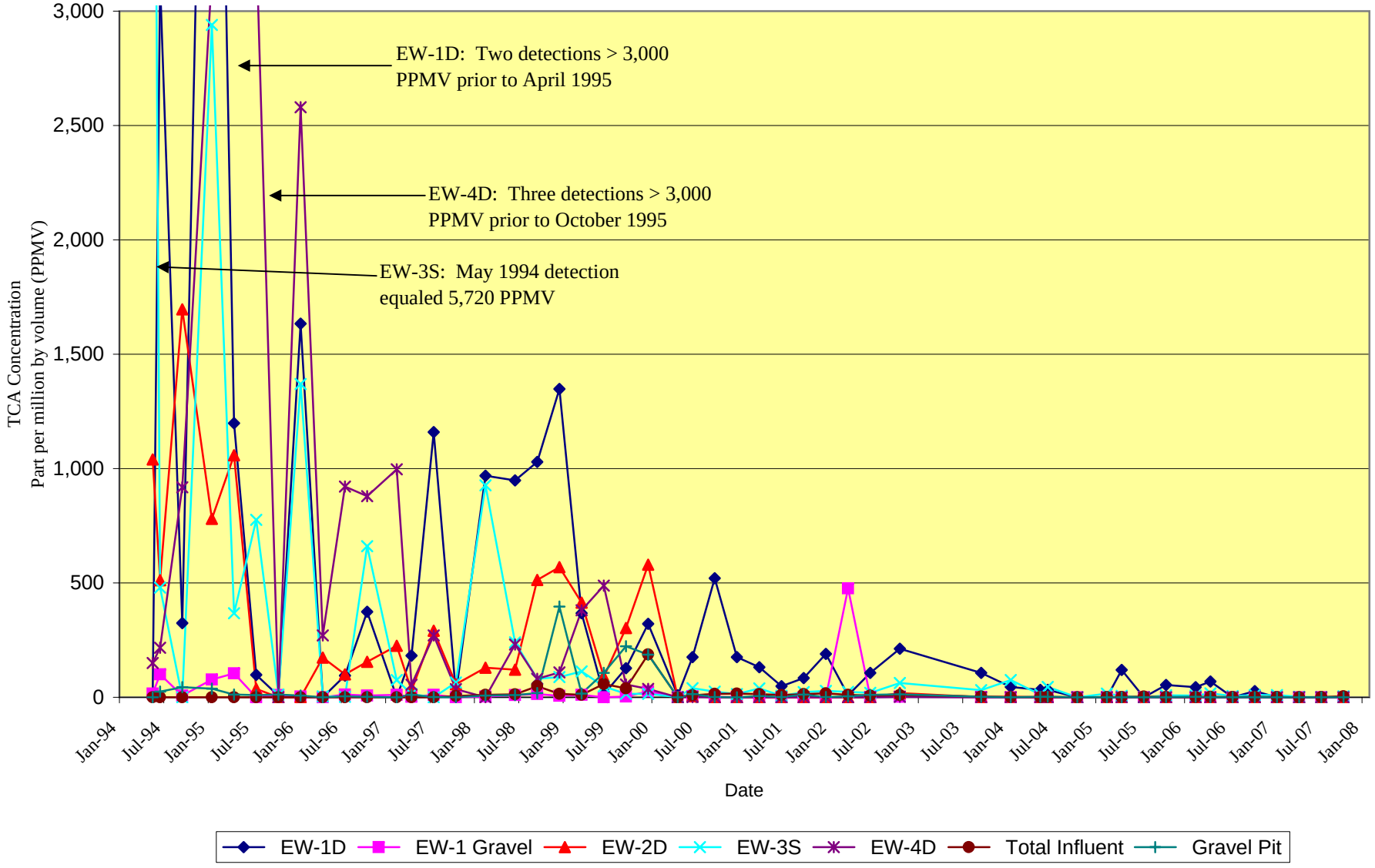


FIGURE 4
Historical Trichloroethylene (TCE) Concentrations

Harley-Davidson Motor Company Operations, Inc.
York Vehicle Operations
1425 Eden Road, York PA 17402

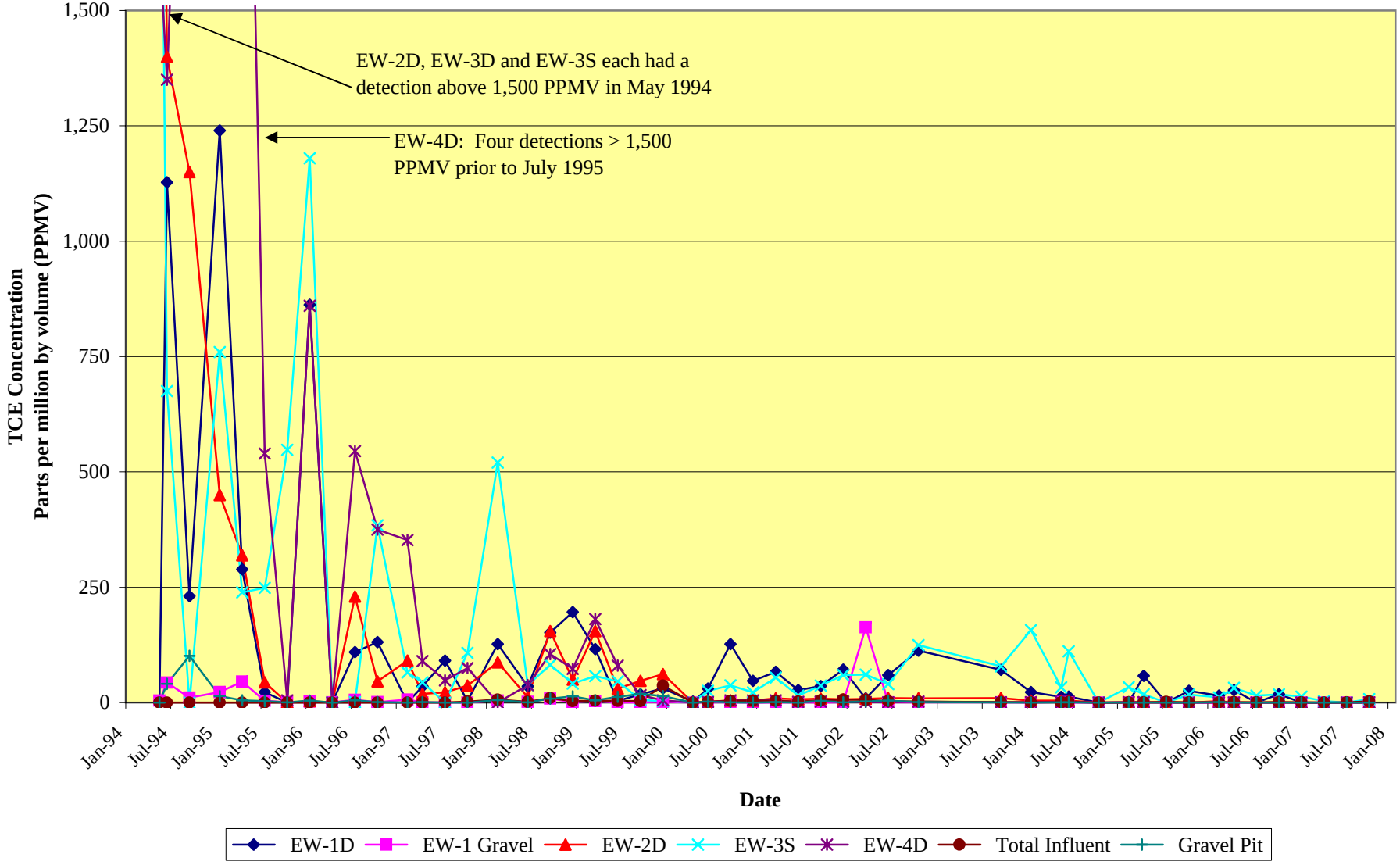


FIGURE 5
Historical Tetrachloroethylene (PCE) Concentrations

Harley-Davidson Motor Company Operations, Inc.
York Vehicle Operations
1425 Eden Road, York PA 17402

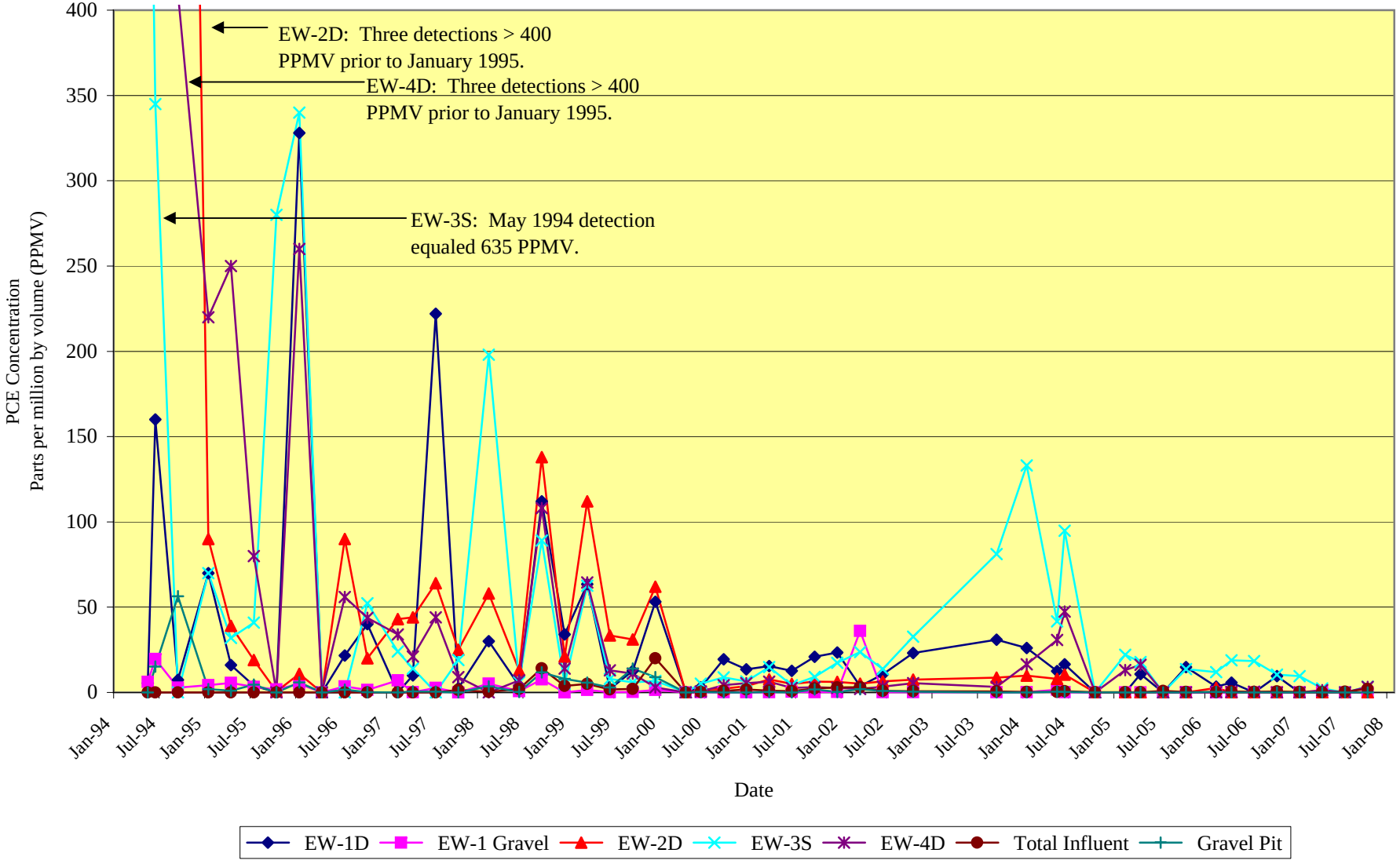


FIGURE 6
Historical cis-1,2-Dichloroethylene (DCE) Concentrations

Harley-Davidson Motor Company Operations, Inc.
York Vehicle Operations
1425 Eden Road, York PA 17402

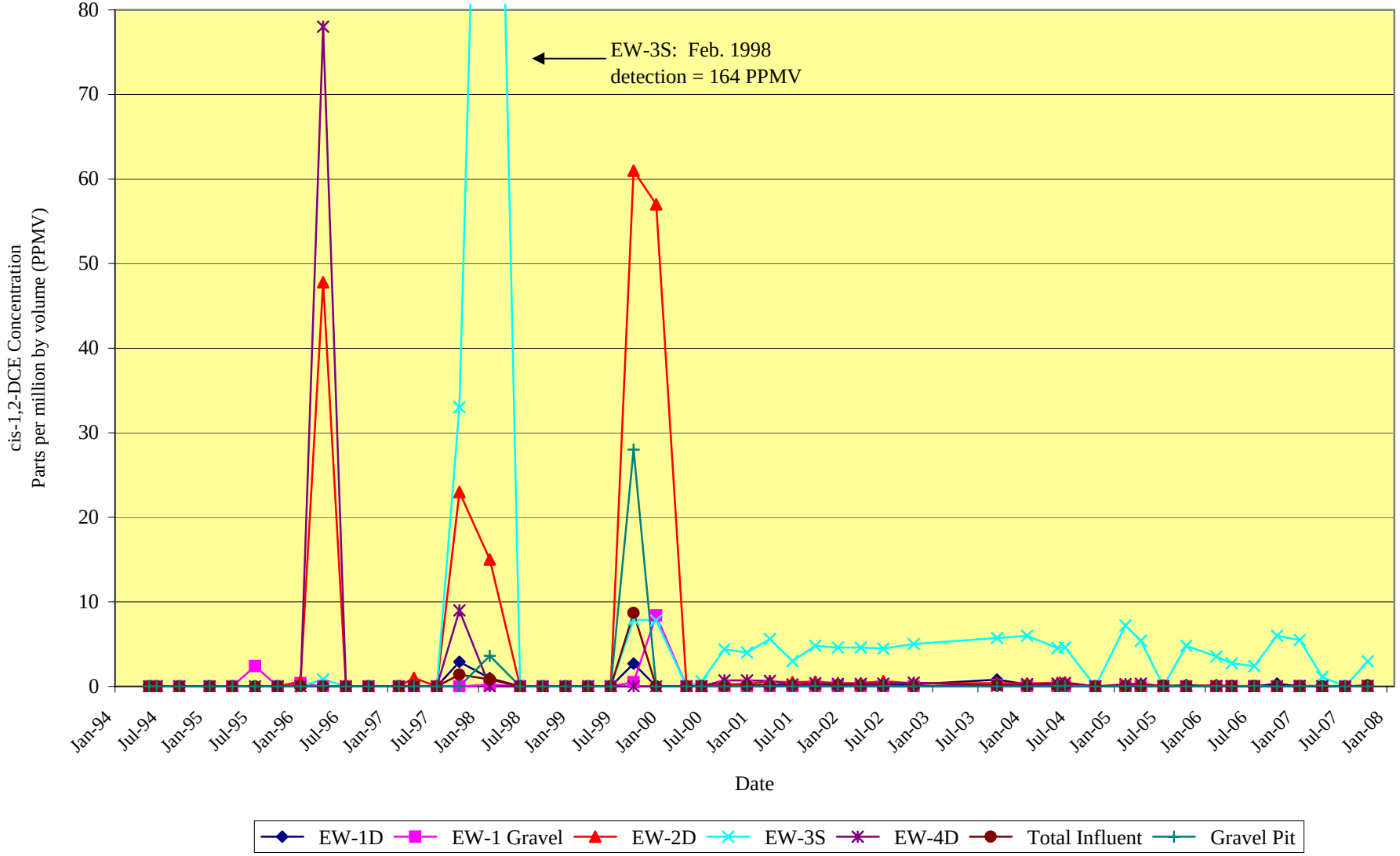
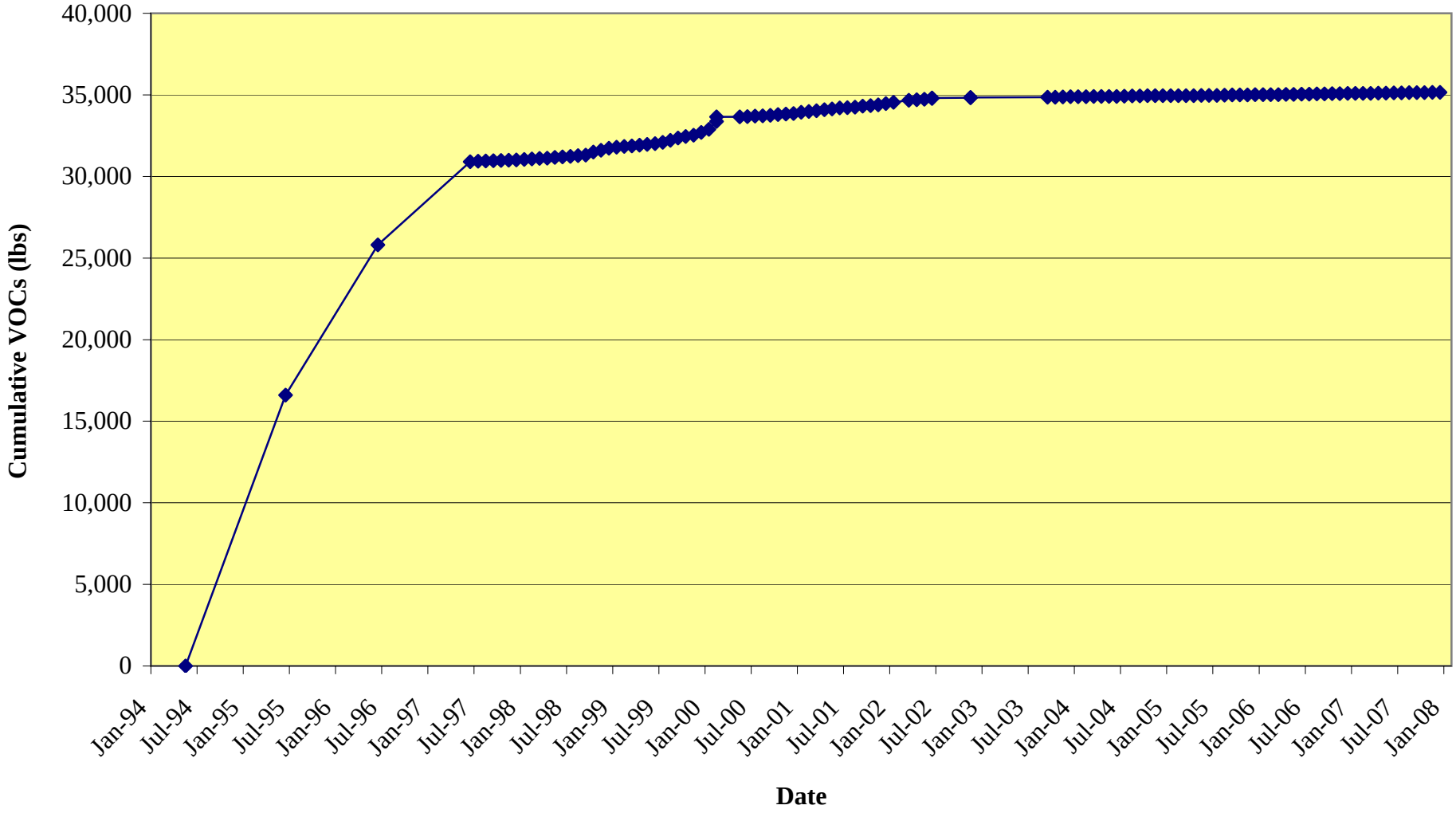


FIGURE 7
North Building 4 SVE Cumulative VOC Recovery

Harley-Davidson Motor Company Operations, Inc.
York Vehicle Operations
1425 Eden Road, York PA 17402



Note: Monthly VOC recovery data was not recorded from start-up through June 1997.

TABLES

TABLE 1
NORTH BUILDING 4 SVE SYSTEM AIRFLOW RATES AND VOC RECOVERY

Harley-Davidson Motor Company Operations, Inc.

York Vehicle Operations

1425 Eden Road, York PA 17402

	TOTAL SYSTEM INFLUENT				
MEASUREMENT DATE	FLOW RATE (SCFM)	BLOWER VAC (IWC)	VOC RECOV (LBS)	CUMUL RECOV (LBS)	RATE (LBS/DAY)
Jun-95	NA	NA	16,596	16,596	NA
Jun-96	NA	NA	9,205	25,801	NA
6/5/97	126	44	5,099	30,900	NA
7/24/97	129	42	31.5	30,931.5	0.64
8/21/97	129	42	18.4	30,949.9	0.66
9/4/97	126	44	9.2	30,959.1	0.66
10/9/97	133	40	22.5	30,981.5	0.64
11/6/97	122	46	19.0	31,000.5	0.68
12/4/97	124	45	17.4	31,017.9	0.62
1/21/98	133	40	30.3	31,048.2	0.63
2/18/98	133	40	19.0	31,067.2	0.68
3/17/98	135	38	31.8	31,099.0	1.18
4/7/98	158	23	25.1	31,124.0	1.19
5/5/98	156	24	39.1	31,163.2	1.40
6/2/98	133	40	38.6	31,201.8	1.38
7/3/98	133	40	35.0	31,236.8	1.13
8/4/98	129	42	36.1	31,273.0	1.13
9/1/98	133	40	30.7	31,303.6	1.10
10/9/98	120	48	190.1	31,493.7	5.00
11/3/98	122	46	112.8	31,606.5	4.51
12/1/98	126	44	128.5	31,735.0	4.59
1/5/99	133	40	50.9	31,785.9	1.45
2/5/99	150	30	47.6	31,833.5	1.53
3/2/99	133	40	43.3	31,876.8	1.73
4/6/99	127	43	48.3	31,925.1	1.38
5/4/99	129	42	36.9	31,962.0	1.32
6/8/99	99	58	46.9	32,008.9	1.34
7/6/99	133	40	87.7	32,096.5	3.13
8/3/99	126	44	117.8	32,214.3	4.21
9/7/99	133	40	139.5	32,353.8	3.99
10/4/99	122	46	91.2	32,445.0	3.38
11/2/99	124	45	89.9	32,534.9	3.10
12/22/99	127	43	157.5	32,692.5	3.15
1/3/00	124	45	189.5	32,881.9	15.79
2/4/00	104	56	493.3	33,375.2	15.42
2/25/00	system shut down		271.5	33,646.8	12.93
4/20/00	106	79	--	33,646.8	--
5/3/00	106	79	7.0	33,653.8	0.54
6/15/00	149	62	23.3	33,677.1	0.54
7/7/00	167	54	16.8	33,693.9	0.76
8/4/00	167	54	23.9	33,717.8	0.85
9/8/00	167	54	29.9	33,747.7	0.85
10/5/00	120	73	46.2	33,793.9	1.71
11/3/00	119	74	35.6	33,829.5	1.23
12/1/00	166	55	34.1	33,863.7	1.22
1/5/01	166	55	66.3	33,930.0	1.90
2/2/01	167	54	53.1	33,983.1	1.90
3/2/01	167	54	53.4	34,036.5	1.91
4/6/01	167	54	55.8	34,092.3	1.60
5/3/01	174	52	43.1	34,135.4	1.60
6/8/01	164	56	59.8	34,195.2	1.66
7/5/01	167	54	28.2	34,223.4	1.04
8/3/01	167	54	30.8	34,254.2	1.06
9/20/01	166	55	51.0	34,305.2	1.06
10/12/01	164	56	40.5	34,345.7	1.84
11/2/01	166	55	38.2	34,383.9	1.82
12/14/01	167	54	77.4	34,461.3	1.84

TABLE 1
NORTH BUILDING 4 SVE SYSTEM AIRFLOW RATES AND VOC RECOVERY

Harley-Davidson Motor Company Operations, Inc.

York Vehicle Operations

1425 Eden Road, York PA 17402

	TOTAL SYSTEM INFLUENT				
MEASUREMENT DATE	FLOW RATE (SCFM)	BLOWER VAC (IWC)	VOC RECOV (LBS)	CUMUL RECOV (LBS)	RATE (LBS/DAY)
1/18/02	164	56	80.1	34,541.3	2.29
3/20/02	161	58	132.6	34,673.9	2.25
4/5/02	167	54	26.5	34,700.4	1.65
5/3/02	164	56	27.5	34,727.8	1.72
6/7/02	164	56	59.0	34,786.8	1.68
6/23/02	system shut down		16.2	34,803.0	1.01
10/25/02	174	52	--	34,803.0	--
11/1/02	167	54	15.9	34,818.8	1.13
11/23/02	system shut down		22.9	34,841.7	1.09
8/16/03	171	53	--	34,841.7	--
9/5/03	164	56	9.6	34,851.3	0.48
10/3/03	171	53	11.3	34,862.6	0.46
11/10/03	178	50	16.1	34,878.8	0.48
12/10/03	system shut down		13.3	34,892.0	0.50
1/9/04	171	53	--	34,892.0	--
2/6/04	167	54	3.6	34,895.6	0.13
3/6/04	180	49	3.7	34,899.3	0.13
4/15/04	174	52	3.7	34,903.0	0.14
5/6/04	171	53	3.1	34,906.1	0.18
6/3/04	167	54	4.9	34,911.0	0.38
7/9/04	176	51	8.9	34,919.9	0.37
8/5/04	174	52	10.6	34,930.5	0.39
9/10/04	174	52	12.0	34,942.5	0.39
10/7/04	171	53	1.3	34,943.8	0.05
11/18/04	164	56	2.1	34,945.9	0.05
12/17/04	193	43	0.9	34,946.8	0.05
1/7/05	176	48	1.2	34,948.0	0.06
2/3/05	176	48	1.9	34,949.9	0.11
3/17/05	176	54	4.1	34,954.0	0.11
4/21/05	176	46	4.1	34,958.1	0.12
5/20/05	176	48	3.2	34,961.3	0.12
6/13/05	80	50	2.7	34,964.0	0.12
7/25/05	80	48	8.4	34,972.5	0.22
8/18/05	176	53	4.6	34,977.1	0.22
9/22/05	176	48	16.6	34,993.7	0.47
10/27/05	176	48	5.2	34,998.8	0.17
11/21/05	184	48	3.7	35,002.5	0.17
12/22/05	184	48	5.6	35,008.1	0.18
1/19/06	184	48	5.0	35,013.1	0.18
2/16/06	184	48	3.1	35,016.2	0.11
3/20/06	112	48	3.5	35,019.7	0.11
4/20/06	184	46	5.7	35,025.4	0.18
5/18/06	184	48	8.5	35,033.9	0.30
6/15/06	184	48	8.1	35,042.0	0.30
7/20/06	274	48	6.1	35,048.2	0.18
8/21/06	184	48	8.0	35,056.1	0.26
9/22/06	184	48	5.4	35,061.6	0.18
10/18/06	210	48	8.0	35,069.6	0.31
11/20/06	136	46	11.3	35,080.9	0.35
12/18/06	194	48	5.5	35,086.4	0.23
1/18/07	194	42	5.3	35,091.7	0.19
2/23/07	184	48	4.2	35,095.9	0.12
3/15/07	159	48	2.1	35,098.1	0.11
4/20/07	159	48	9.0	35,107.1	0.26
5/17/07	172	48	6.0	35,113.1	0.26
6/27/07	172	48	10.7	35,123.7	0.28
7/20/07	172	48	3.2	35,126.9	0.16
8/16/07	159	42	4.4	35,131.3	0.16
9/24/07	159	48	5.5	35,136.8	0.15
10/18/07	159	48	5.9	35,142.7	0.27
11/15/07	125	48	7.2	35,149.9	0.27
12/17/07	159	48	6.5	35,156.4	0.21

Notes: -- Indicates a startup date, no VOC recovery is calculated until the next monitoring date
NA - Not available; Monthly VOC recovery data not recorded from start-up through June 1997.
Beginning in January 2005, flow rate determined from in-line pitot tube (previously from blower curve)

TABLE 2
NORTH BUILDING 4 SOIL VAPOR MONITORING POINT VOC CONCENTRATIONS

Harley-Davidson Motor CompanyOperations, Inc.
York Vehicle Operations
1425 Eden Road, York PA 17402

SAMPLE LOCATIONS	1/18/07	4/20/07	7/24/07	10/18/07
1,1,1- TCA				
EW-1D	ND	ND	ND	ND
EW-1S	NS	NS	NS	NS
EW-1 Gravel	0.010	ND	ND	0.006
EW-2D	0.021	ND	ND	ND
EW-2S	NS	NS	NS	NS
EW-3D	NS	NS	NS	NS
EW-3S	9.633	2.388	ND	4.124
EW-4D	0.012	0.006	ND	0.049
EW-4S	NS	NS	NS	NS
Gravel Pit	ND	ND	ND	0.005
Total Influent	1.441	0.502	1.186	3.976
TCE				
EW-1D	0.038	0.018	ND	0.012
EW-1S	NS	NS	NS	NS
EW-1 Gravel	0.050	0.023	0.021	0.008
EW-2D	0.051	0.024	0.027	0.007
EW-2S	NS	NS	NS	NS
EW-3D	NS	NS	NS	NS
EW-3S	13.223	3.244	ND	7.727
EW-4D	0.058	0.104	0.024	0.485
EW-4S	NS	NS	NS	NS
Gravel Pit	0.048	0.024	ND	0.007
Total Influent	0.674	0.226	0.650	2.504
PCE				
EW-1D	0.038	0.019	0.009	0.009
EW-1S	NS	NS	NS	NS
EW-1 Gravel	0.028	0.020	0.007	0.007
EW-2D	0.020	0.015	0.019	0.007
EW-2S	NS	NS	NS	NS
EW-3D	NS	NS	NS	NS
EW-3S	9.523	2.422	0.013	3.432
EW-4D	0.032	1.340	0.018	3.242
EW-4S	NS	NS	NS	NS
Gravel Pit	0.026	0.018	0.014	0.009
Total Influent	0.300	0.110	0.417	2.039
c-1,2- DCE				
EW-1D	ND	ND	ND	ND
EW-1S	NS	NS	NS	NS
EW-1 Gravel	0.02	ND	ND	ND
EW-2D	0.05	0.01	ND	ND
EW-2S	NS	NS	NS	NS
EW-3D	NS	NS	NS	NS
EW-3S	5.49	1.12	ND	2.98
EW-4D	0.07	0.03	ND	0.10
EW-4S	NS	NS	NS	NS
Gravel Pit	0.02	0.09	ND	ND
Total Influent	0.03	ND	0.01	0.12
Vinyl-chloride				
EW-1D	ND	ND	ND	ND
EW-1S	NS	NS	NS	NS
EW-1 Gravel	ND	ND	ND	ND
EW-2D	ND	ND	ND	ND
EW-2S	NS	NS	NS	NS
EW-3D	NS	NS	NS	NS
EW-3S	ND	ND	ND	ND
EW-4D	ND	ND	ND	ND
EW-4S	NS	NS	NS	NS
Gravel Pit	ND	ND	ND	ND
Total Influent	ND	ND	ND	ND

ND - Not Detected
NS - Not Sampled
NA - Not Analyzed
All concentrations are in Part per million by volume (PPMV)