INTERIM REMEDIAL MEASURES 3RD QTR. PROGRESS REPORT FORMER GRIFFIN TECHNOLOGY FACILITY FARMINGTON, NEW YORK INDEX NO. (B8-315-90-01)

Prepared for
Diebold, Inc.
Canton, Ohio

January 13, 1998

Woodward-Clyde

30775 Bainbridge Road
Suite 200
Solon, Ohio 44139
440/349/2708
Project No. 6E06191

CERTIFICATION

INTERIM REMEDIAL MEASURE SEMI-ANNUAL PROGRESS REPORT

GRIFFIN TECHNOLOGY, INC. FACILITY

TOWN OF FARMINGTON

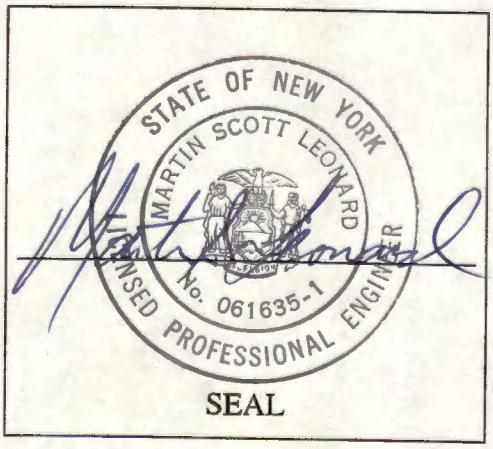
ONTARIO COUNTY, NEW YORK

The enclosed 3rd Quarter Progress Report has been reviewed by the undersigned, and has been found to be consistent with the requirements of the Order on Consent (Index No. B8-315-90-01), entered into by the New York State Department of Environmental Conservation and Griffin Technology, Inc.

Name: Martin S. Leonard P.E.

Title: Consulting Professional Engineer

Date: 1/14/98



SEAL

Table of Contents

This report presents the information collected during the third quarter of operation of the Interim Remedial Measure (IRM) system at the Griffin Technology, Inc. (GTI) site located at 6132 Victor-Manchester Road in the Town of Farmington, Ontario County, New York. The IRM system consists of three wells equipped with groundwater extraction pumps which have been plumbed to discharge groundwater into the local sanitary sewer system. A general location map is included as Figure 1.

The IRM system was proposed in the *IRM Work Plan* submitted to the New York State Department of Environmental Conservation (NYSDEC) on July 10, 1996. The Work Plan was prepared in accordance with the Order on Consent agreement (Index No. B8-315-90-01) entered into by GTI and the NYSDEC. Information supporting the selected IRM, such as a Field Sampling Plan (FSP), Quality Assurance Project Plan (QAPP), and Health and Safety Plan (HASP), were included in the Work Plan.

On September 27, 1996, GTI submitted an *Interim Remedial Measure Program, Final Design Document* to the NYSDEC. This document contained the proposed layout and detail drawings for the IRM system and a copy of the letter approving the discharge of recovered groundwater into the local publicly-owned treatment works (POTW) sanitary sewer. In addition, an implementation schedule to construct the system and a proposed two year sample collection and reporting schedule were included in the design document.

During December 1996 and January 1997, the IRM components were installed at the site. Following approval by the NYSDEC and the Canandaguia-Farmington Water and Sewer District to discharge recovery water into the sanitary sewer system, the system was placed on-line. The IRM system began operating on February 18, 1997.

The activities performed during the installation of the IRM and during the third quarter of operation are described in Section 2.0. Information collected during the third quarter of operation are presented in Section 3.0. Summary information is presented in Section 4.0.

The activities performed during the third quarter of IRM operation consisted of collecting bi-weekly groundwater elevations from on-site and off-site monitoring wells, measuring the quantity of water discharged by the IRM system during each of the three months of operation, and obtaining analytical data on the quality of the effluent discharged during each of the three months in this quarter. Each of these activities are described in greater detail below.

2.1. HYDRAULIC HEAD MEASUREMENT

During the third quarter of IRM operation, hydraulic head (groundwater elevation) measurements were collected bi-weekly from each groundwater well and piezometer located on-site. All groundwater measurements were collected using an electronic water level indicator capable of measuring the water elevation to the nearest 0.01 ft. Hydraulic head measurements were also collected from several off-site wells located in the immediate vicinity of the IRM system. The measurements were collected identically to the on-site wells measured during this time period.

2.2. EFFLUENT MONITORING SAMPLING AND ANALYSIS

At the end of each month of operation, the quantity of effluent discharged was recorded from a totalizing flow meter located on the common header discharge in the Central Access Vault. The value from the preceding months operation was subtracted from this value in order to determine the monthly effluent discharge to the Farmington Water and Sewer District wastewater treatment facility. In addition, a sample of the effluent was collected monthly from a sample port located on the header discharge in the Central Access Vault in order to evaluate the quality of the groundwater being recovered by the IRM system. These samples were submitted to Columbia Analytical Services, Inc. (CASI) for analysis of volatile organic compounds (VOCs) by United States Environmental Protection Agency (USEPA) method 8260. The analytical results of the samples collected were used to report estimated loadings to the POTW.

Data collected and analytical results obtained during the third quarter of IRM system operation are presented in the following subsections.

3.1. EFFLUENT OPERATING DATA AND ANALYTICAL RESULTS

A summary of the operating data and effluent analysis collected during each month of the third quarter of IRM system operation is presented in Table 1. The results indicate that groundwater containing COC's is being removed from underneath the GTI site. The quantity of water removed by the system has decreased during the summer months. This condition is a result of lower groundwater elevations typically encountered during drier months. The laboratory data sheets are provided in Appendix A.

3.2. HYDRAULIC HEAD MEASUREMENT RESULTS

Groundwater elevations collected from selected on-site and off-site monitoring wells during the third quarter of IRM system operation are presented in Table 2. This data was used to prepare groundwater elevation and flow maps for the overburden and bedrock groundwater zones. Overburden groundwater zone contour maps for the GTI site are presented as Figures 2 through 7. Bedrock groundwater zone contour maps of the GTI site are presented as Figures 8 through 13.

The groundwater zone contour maps from the GTI site indicate that water levels in both the overburden and bedrock zones have been depressed near the GTI site boundary with a low area being present in the vicinity of RW-03. The data indicate that the IRM system is influencing groundwater patterns on the GTI site.

This data is consistent with previous observed site conditions.

Based on the information collected during the preceding three months of IRM system operation, the following summary has been developed regarding environmental conditions at the GTI site:

- The IRM system is affecting groundwater flow patterns in the vicinity of the GTI facility. The groundwater contour maps prepared using water elevation data from the bedrock and overburden zones, indicate that the elevation of groundwater in the immediate vicinity of the IRM system has been depressed.
- Regional groundwater elevations have been depressed during the last three months. The low elevations are apparently reducing the rate of groundwater recovery of the IRM system by reducing the rate of recharge in the wells.

Additional data collection activities during the next quarter of IRM operation will consist of the same activities performed during the previous months of operation. A second semi-annual sampling of all groundwater monitoring wells is scheduled at the end of this quarter.

Tables

TABLE 1
SUMMARY OF EFFLUENT DISCHARGES IN POTW
GRIFFIN TECHNOLOGY INC. - VICTOR, NEW YORK

MONTH	DISCHARGE (GAL.)	TCE	1,1,1-TCA	1,2-DCE
September 1997	70,218	810	ND	ND
October 1997	90,717	880	18.0	10.0
November 1997	93,914	690	17.0	12.0

Notes:

1. All results expressed in micrograms per liter (µg/l).
2. No other VOC compounds detected at method detection limit.
3. ND indicates not detected at method detection limit.

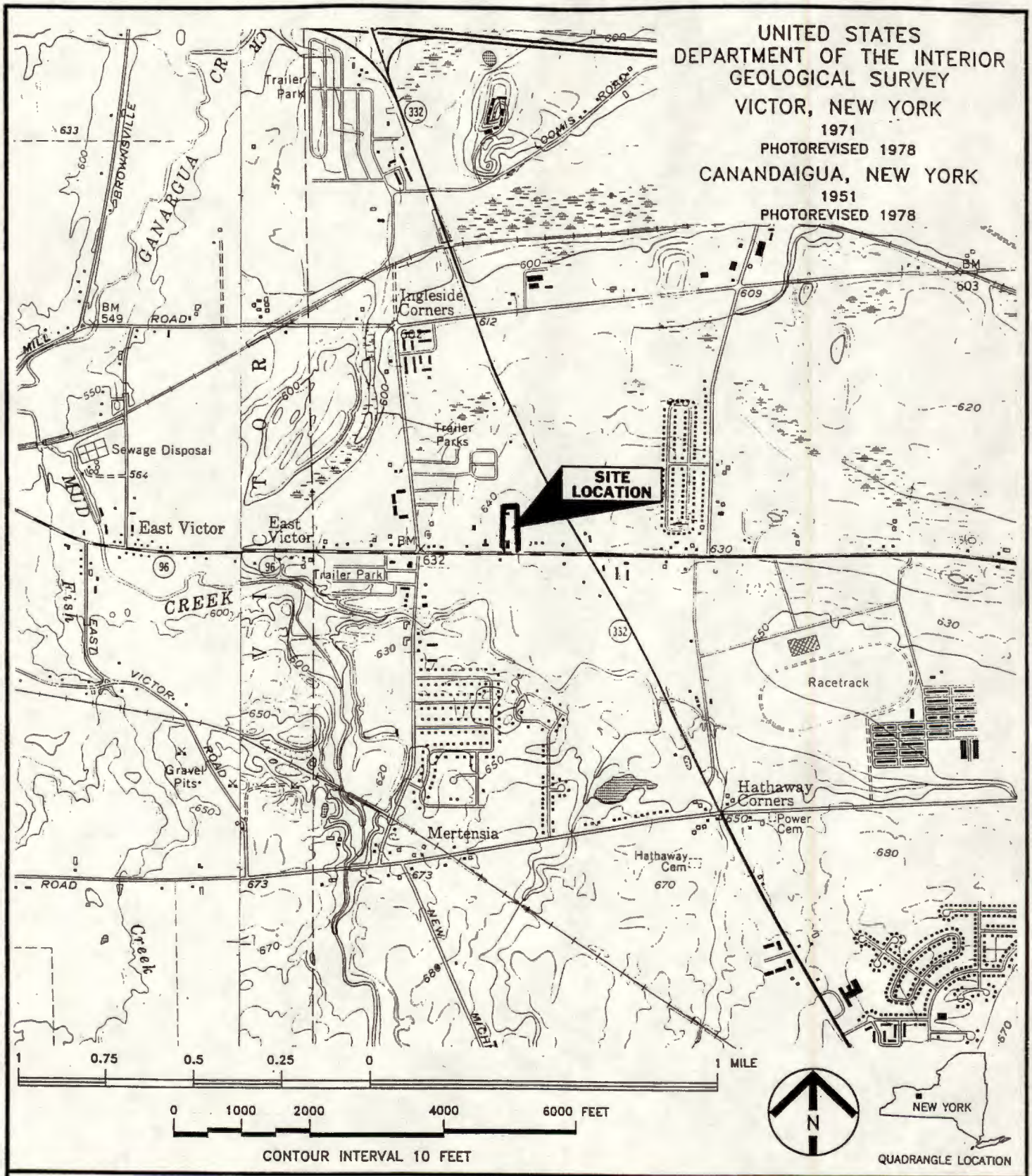
TABLE 2
SUMMARY OF GROUNDWATER ELEVATIONS SEPTEMBER-NOVEMBER 1997
GRIFFIN TECHNOLOGY FACILITY
VICTOR, NEW YORK

Well Designation	Water Elevation (ft) 9/16/97	Water Elevation (ft) 9/30/97	Water Elevation (ft) 10/15/97	Water Elevation (ft) 11/03/97	Water Elevation (ft) 11/17/97	Water Elevation (ft) 11/28/97
MW-01	628.13	631.49	629.72	632.94	631.59	636.19
MW-2S	625.33	629.86	625.83	628.99	627.68	632.75
MW-2D	624.90	630.02	626.06	629.33	627.88	632.80
MW-03	625.19	629.13	627.07	631.36	628.94	635.67
MW-04	622.45	627.06	623.23	626.47	625.27	631.02
MW-5S	620.95	623.39	621.87	622.72	622.77	628.65
MW-5D	618.60	619.78	619.38	619.69	619.90	623.46
MW-06S	621.69	622.52	622.32	622.65	DRY	629.28
MW-06D	621.69	622.53	622.35	622.65	DRY	629.35
MW-11D	624.02	625.36	625.01	626.17	626.32	631.88
PZ-1S	DRY	DRY	DRY	DRY	DRY	630.50
PZ-1D	DRY	DRY	DRY	DRY	DRY	630.28
PZ-2S	DRY	DRY	DRY	DRY	DRY	626.92
PZ-2D	619.96	623.03	620.67	622.19	621.78	626.59

NOTES:

1. Water levels collected on dates shown.
2. "NM" indicates water elevation not measured on date shown.
3. "DRY" indicates no water present in well at time of measurement.
4. All measurements relative to Mean Sea Level (MSL).

Figures



GENERAL LOCATION MAP

GRIFFIN TECHNOLOGY INC. - ONTARIO COUNTY - FARMINGTON, NEW YORK

DRAWN BY: MMS	CHECKED BY: KMA	PROJECT NUMBER:	DATE: 6-10-96	FIGURE NO: 1

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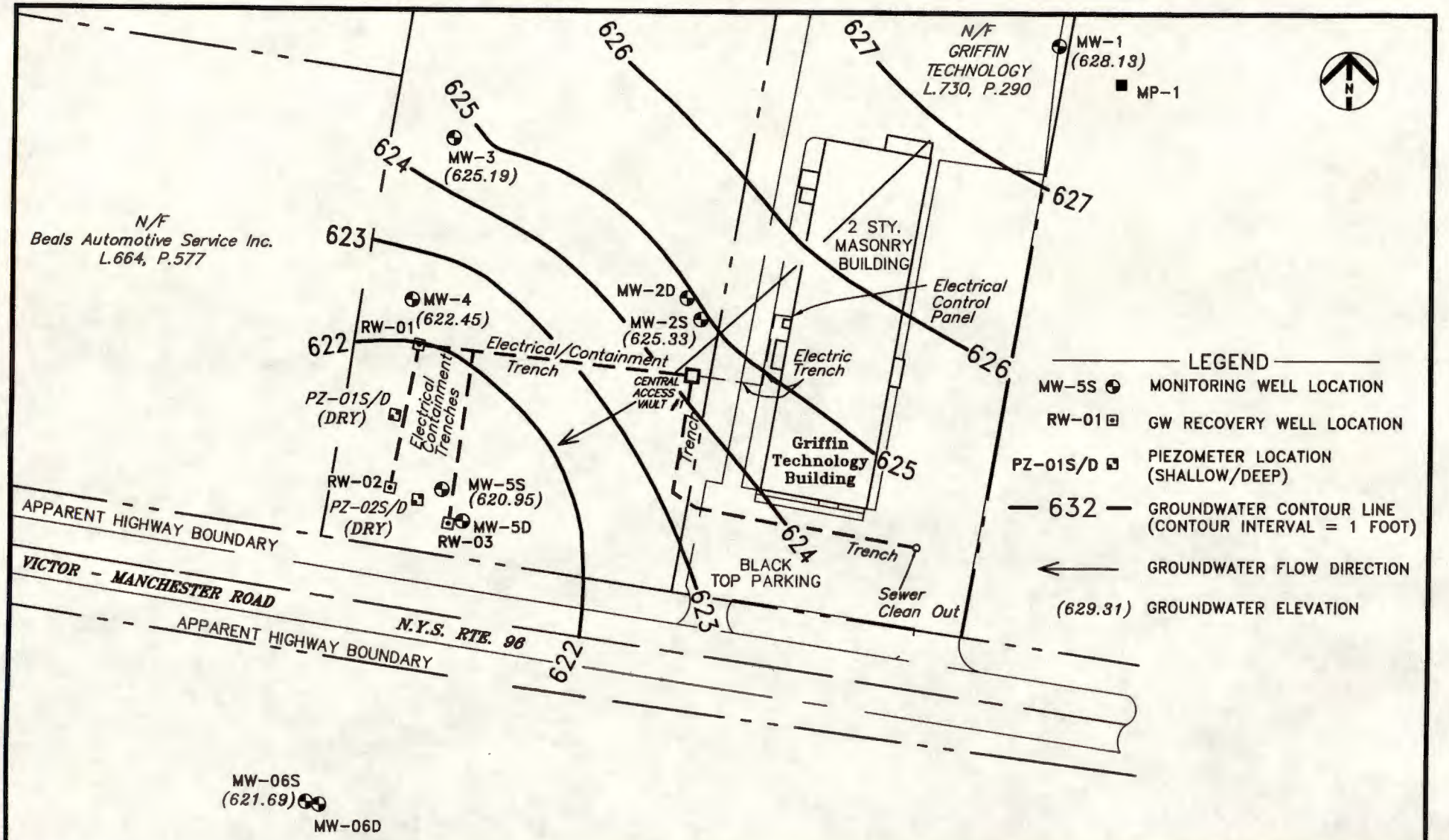
Woodward-Clyde Consultants



OVERBURDEN GROUNDWATER CONTOUR MAP
SEPTEMBER 16, 1997
GRIFFIN TECHNOLOGY, INC. VICTOR, NEW YORK

DRAWN BY: MMS	CHECKED BY: KMA	PROJECT NUMBER: 6E06191	DATE: 12-12-97	FIGURE NO: 2

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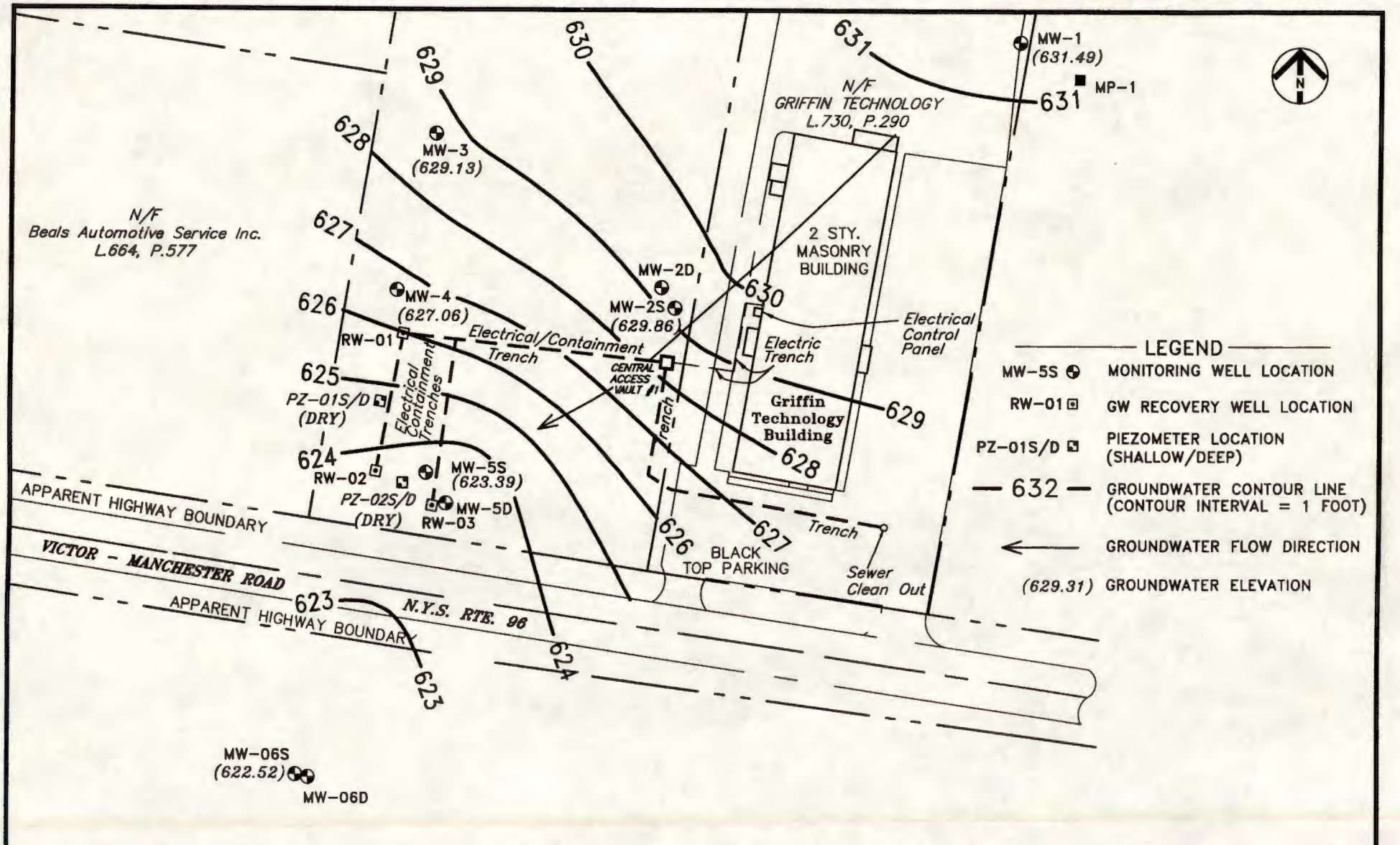
Woodward-Clyde



OVERBURDEN GROUNDWATER CONTOUR MAP
SEPTEMBER 30, 1997
GRIFFIN TECHNOLOGY, INC. VICTOR, NEW YORK

DRAWN BY: MMS	CHECKED BY: KMA	PROJECT NUMBER: 6E06191	DATE: 12-12-97	FIGURE NO: 3

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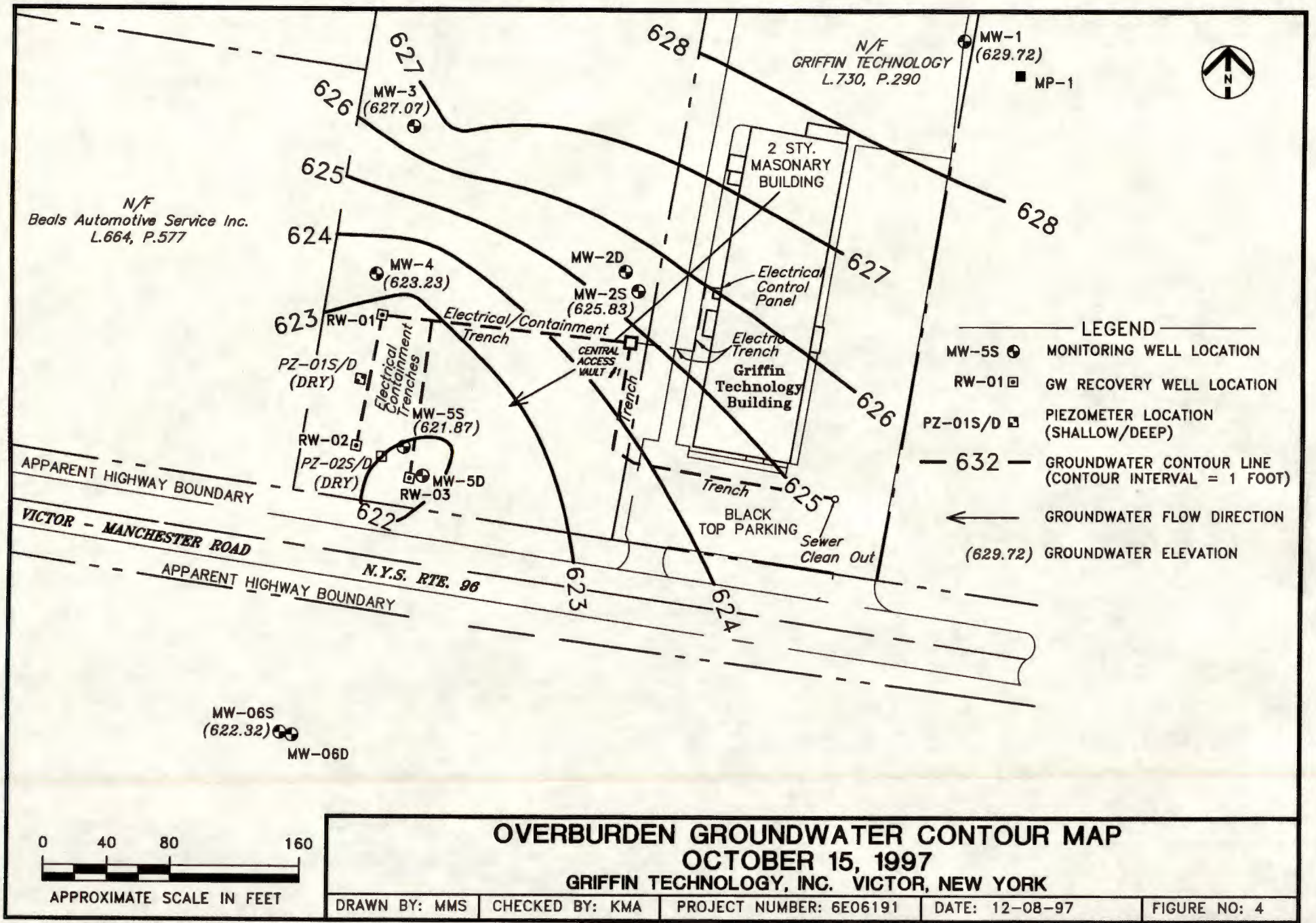

OVERBURDEN GROUNDWATER CONTOUR MAP
OCTOBER 15, 1997
GRIFFIN TECHNOLOGY, INC. VICTOR, NEW YORK

DRAWN BY: MMS	CHECKED BY: KMA	PROJECT NUMBER: 6E06191	DATE: 12-08-97	FIGURE NO: 4

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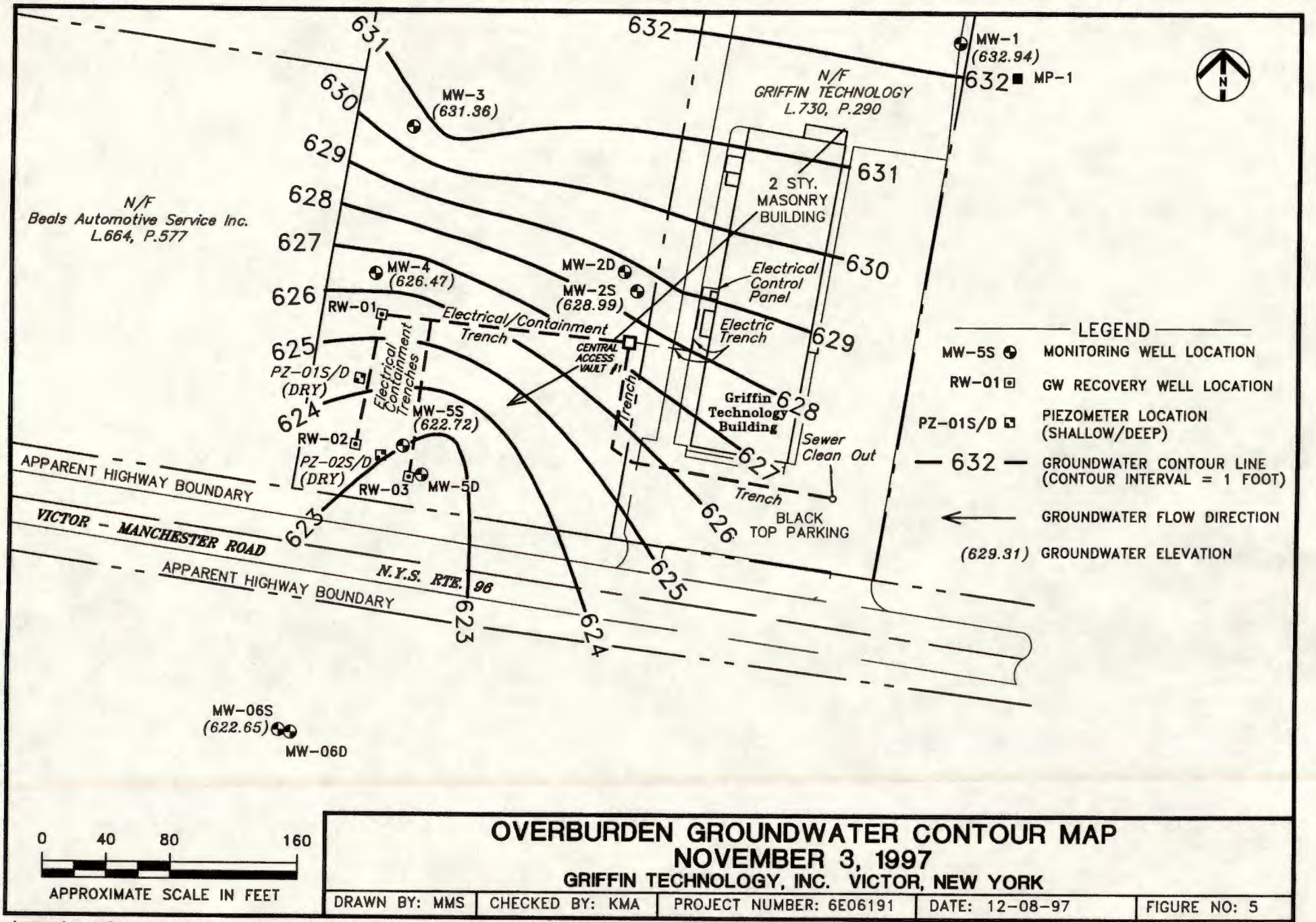
Woodward-Clyde



OVERBURDEN GROUNDWATER CONTOUR MAP
NOVEMBER 3, 1997
GRIFFIN TECHNOLOGY, INC. VICTOR, NEW YORK

DRAWN BY: MMS	CHECKED BY: KMA	PROJECT NUMBER: 6E06191	DATE: 12-08-97	FIGURE NO: 5

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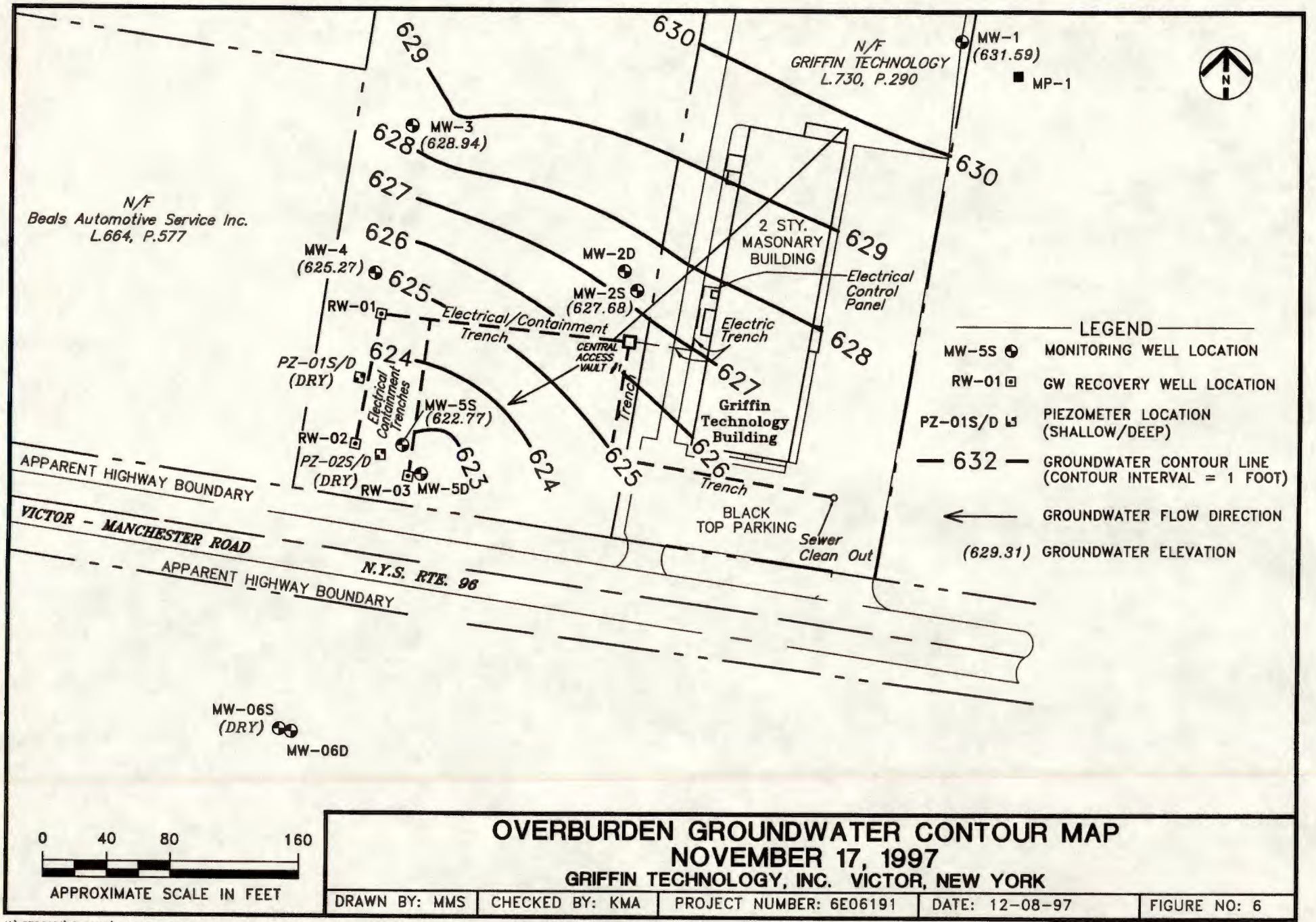
Woodward-Clyde



OVERBURDEN GROUNDWATER CONTOUR MAP
NOVEMBER 17, 1997
GRIFFIN TECHNOLOGY, INC. VICTOR, NEW YORK

DRAWN BY: MMS	CHECKED BY: KMA	PROJECT NUMBER: 6E06191	DATE: 12-08-97	FIGURE NO: 6

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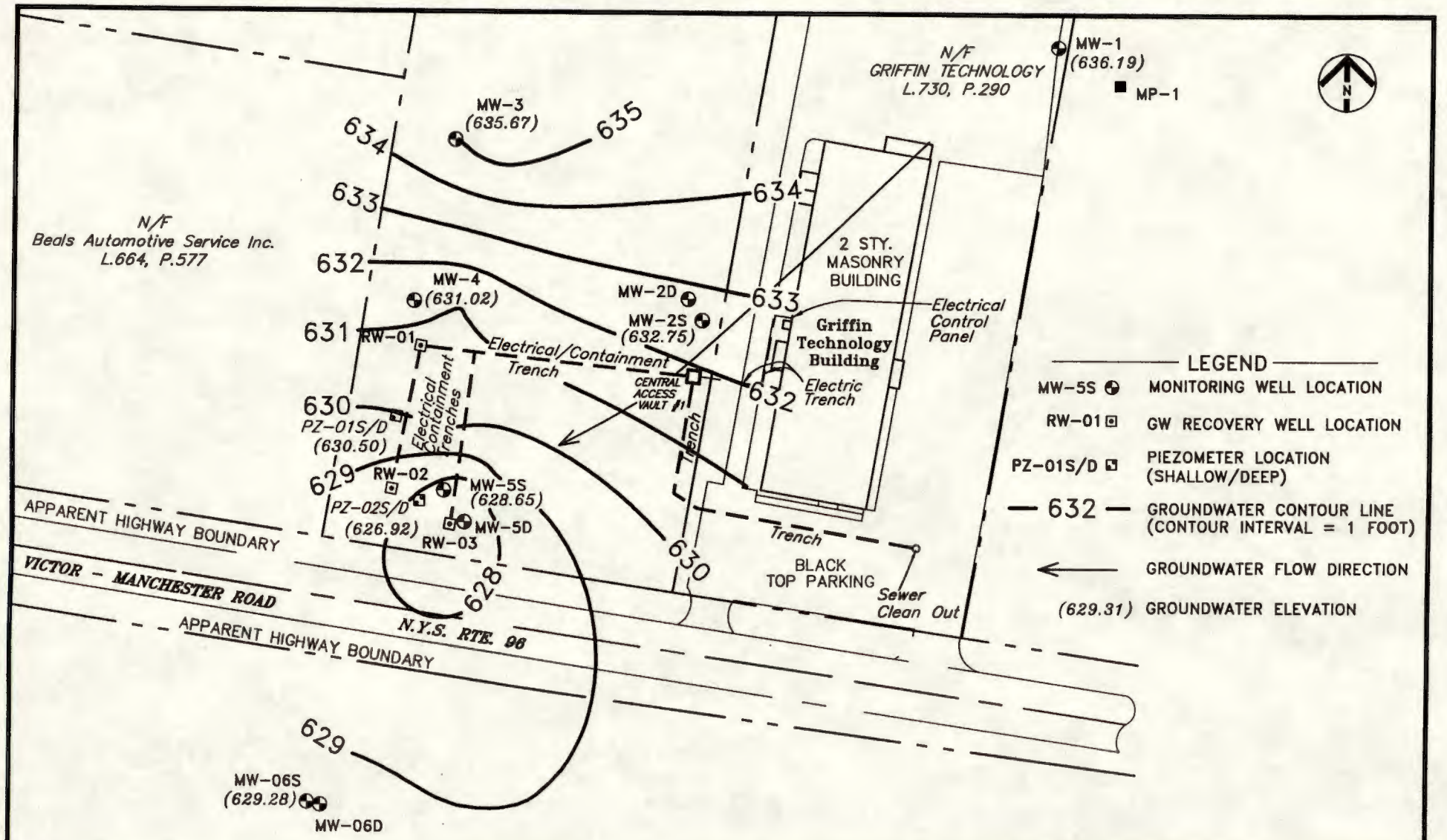
Woodward-Clyde



OVERBURDEN GROUNDWATER CONTOUR MAP
NOVEMBER 28, 1997
GRIFFIN TECHNOLOGY, INC. VICTOR, NEW YORK

DRAWN BY: MMS	CHECKED BY: KMA	PROJECT NUMBER: 6E06191	DATE: 12-08-97	FIGURE NO: 7

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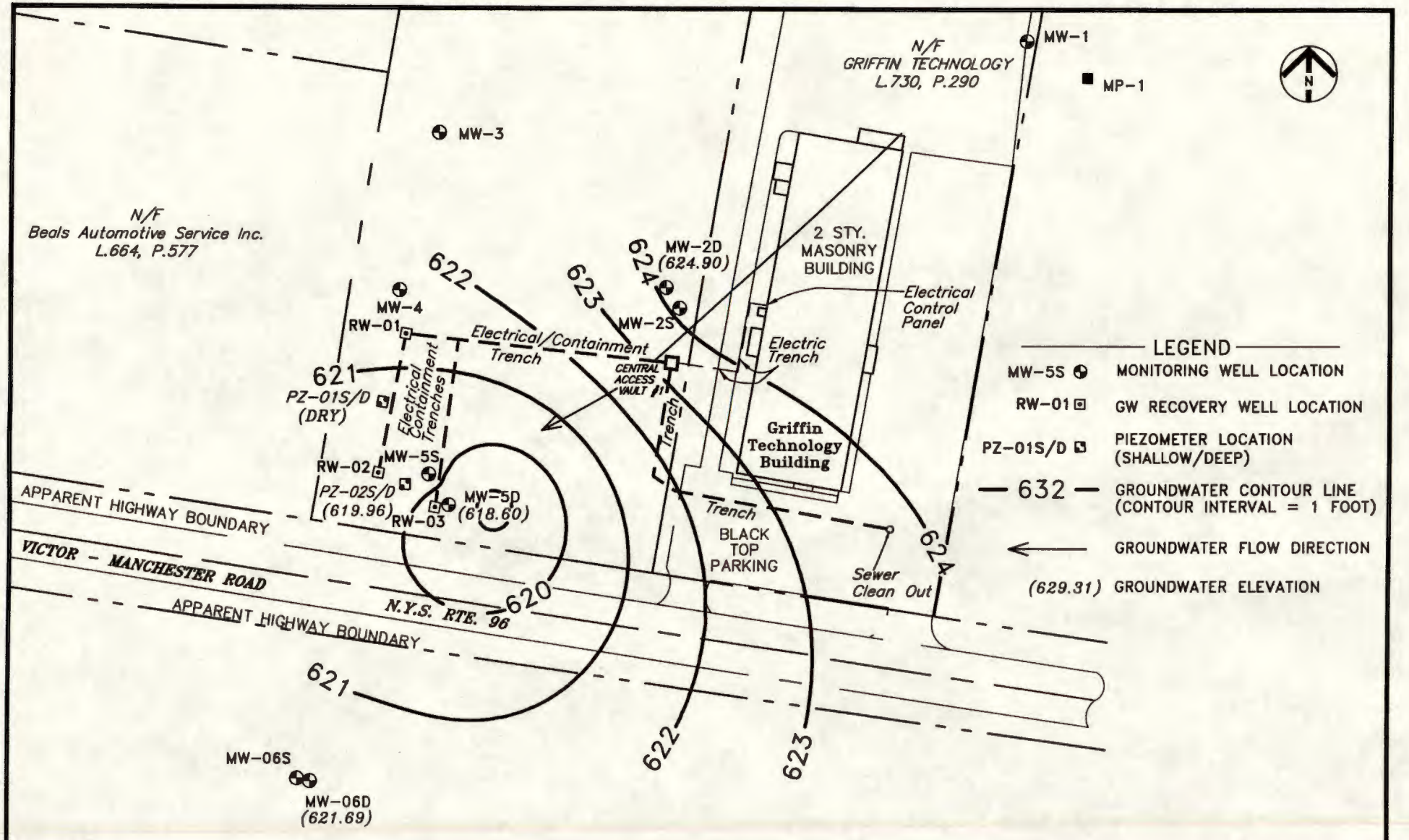

BEDROCK GROUNDWATER CONTOUR MAP
SEPTEMBER 16, 1997
GRIFFIN TECHNOLOGY, INC. FARMINGTON, NEW YORK

DRAWN BY: MMS	CHECKED BY: KMA	PROJECT NUMBER: 6E06191	DATE: 12-04-97	FIGURE NO: 8

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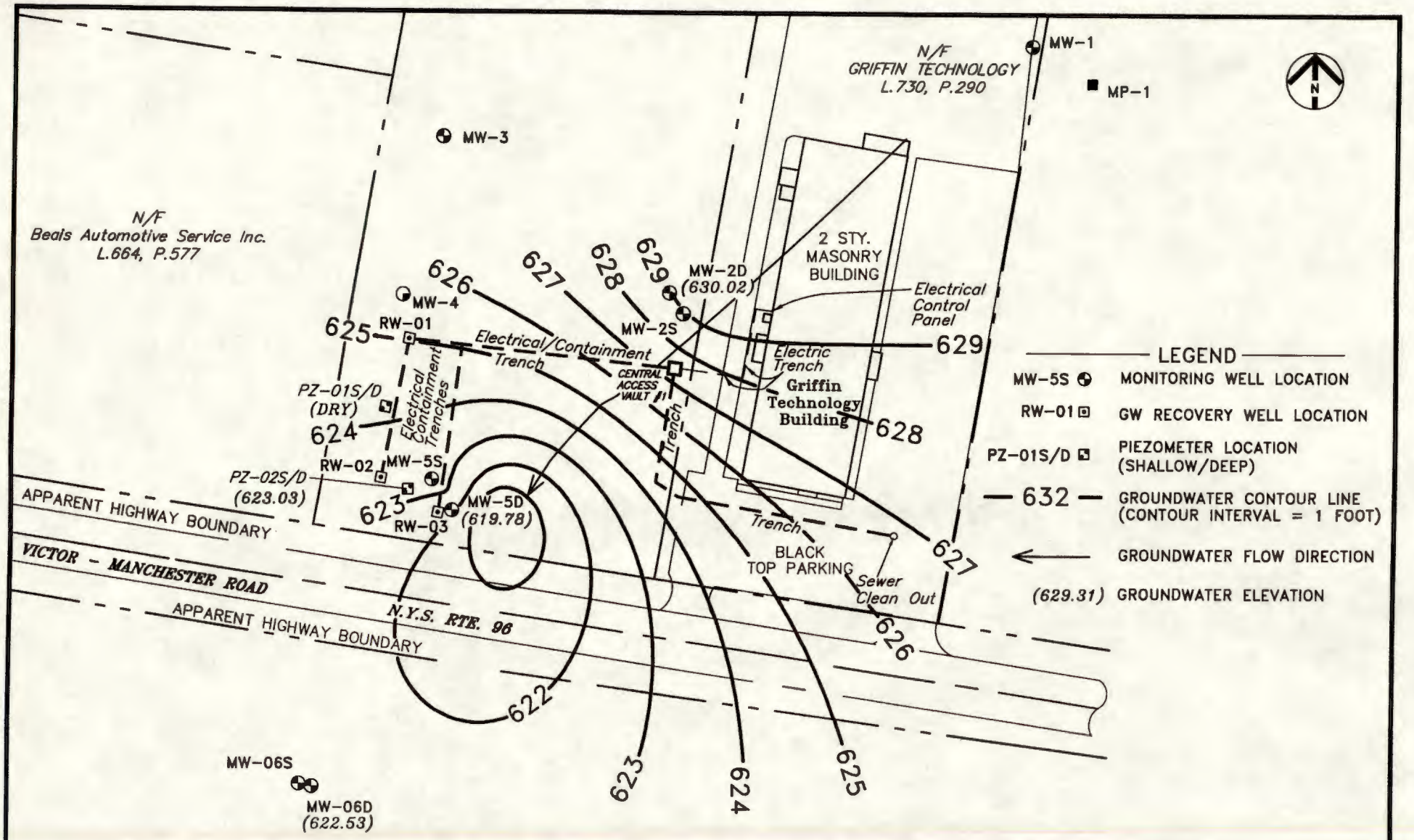
Woodward-Clyde



BEDROCK GROUNDWATER CONTOUR MAP
SEPTEMBER 30, 1997
GRIFFIN TECHNOLOGY, INC. FARMINGTON, NEW YORK

DRAWN BY: MMS	CHECKED BY: KMA	PROJECT NUMBER: 6E06191	DATE: 12-04-97	FIGURE NO: 9

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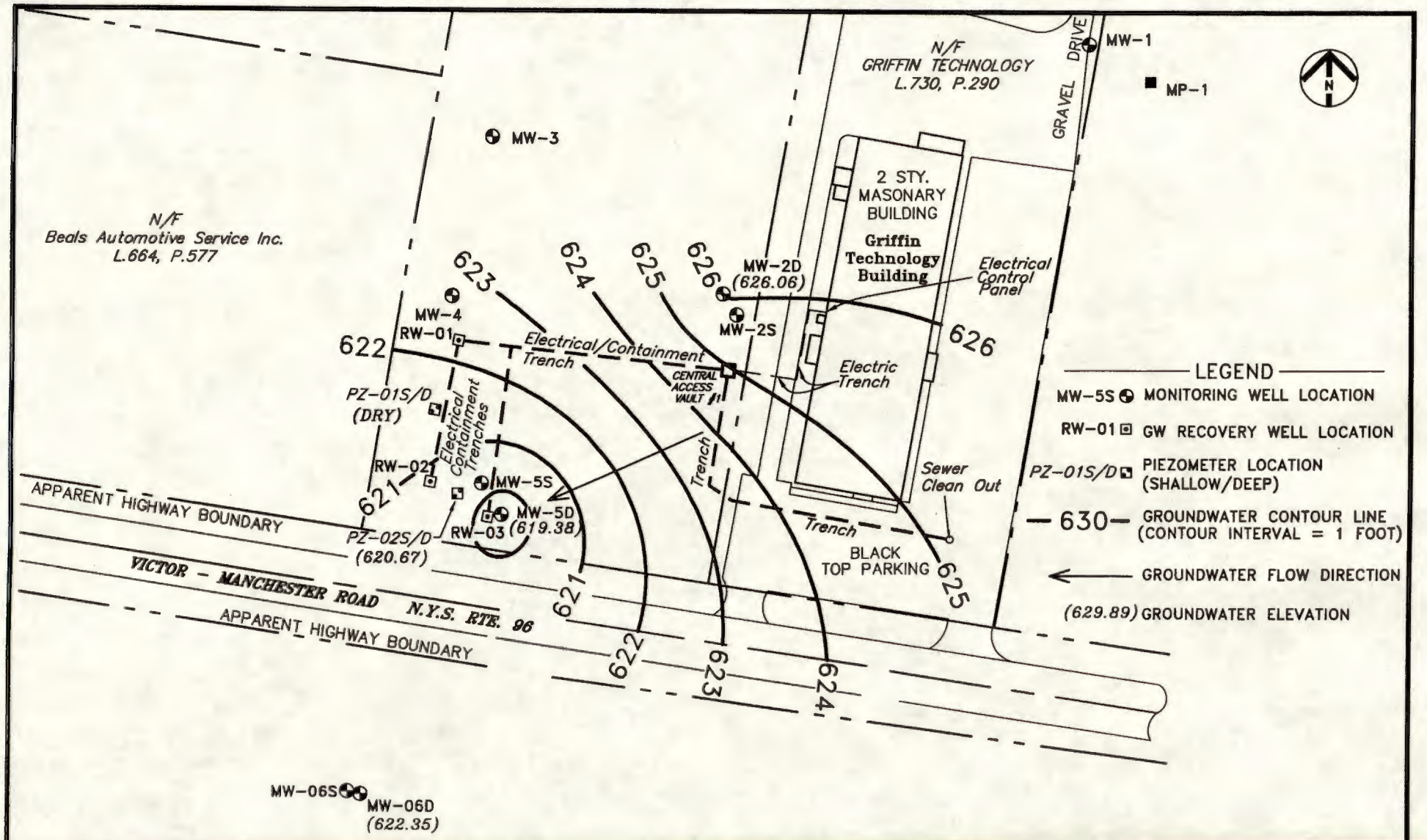
Woodward-Clyde



BEDROCK GROUNDWATER CONTOUR MAP
OCTOBER 15, 1997
GRIFFIN TECHNOLOGY, INC. VICTOR, NEW YORK

DRAWN BY: MMS	CHECKED BY: KMA	PROJECT NUMBER: 6E06191	DATE: 12-08-97	FIGURE NO: 10

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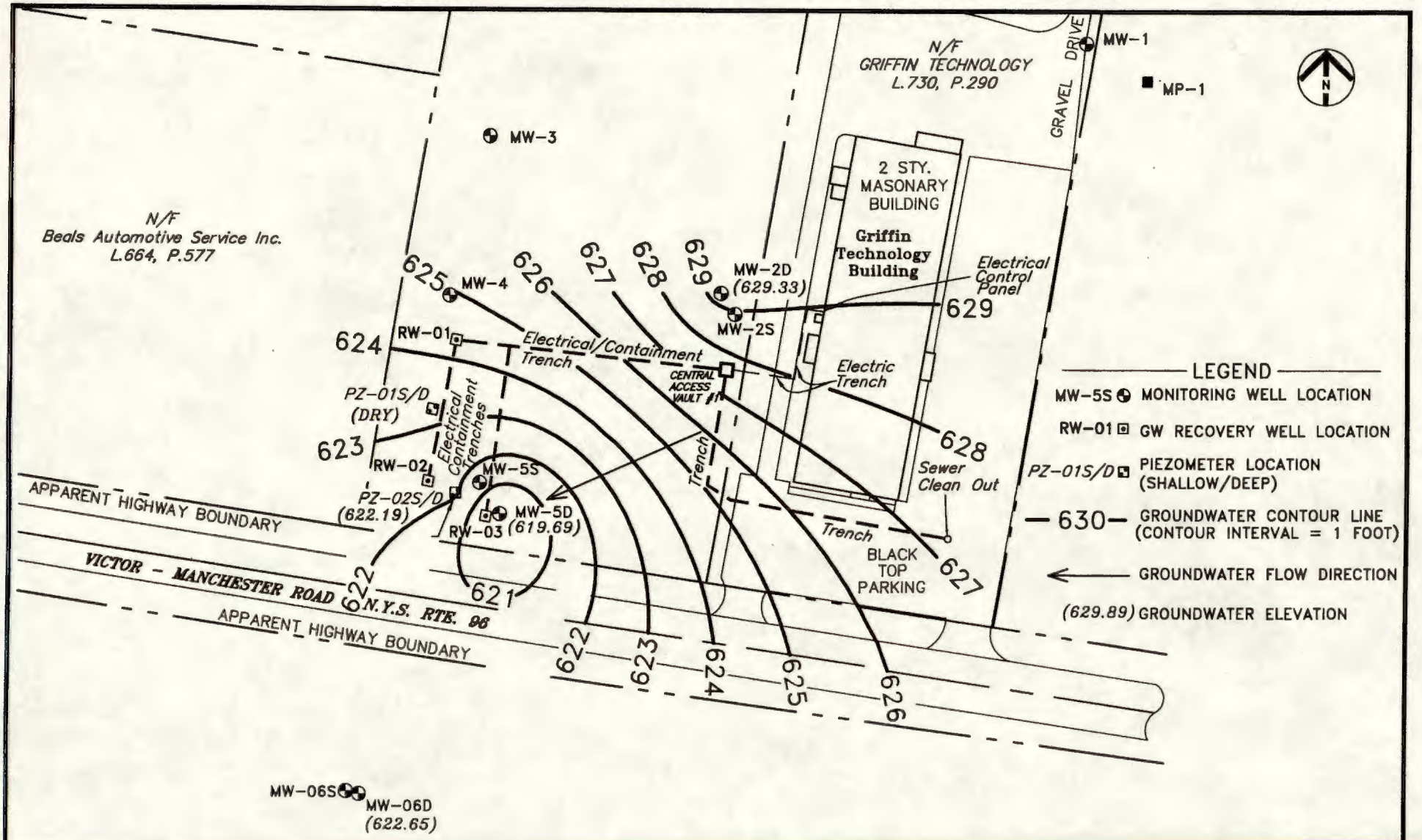
Woodward-Clyde



BEDROCK GROUNDWATER CONTOUR MAP
NOVEMBER 3, 1997
GRIFFIN TECHNOLOGY, INC. VICTOR, NEW YORK

DRAWN BY: MMS	CHECKED BY: KMA	PROJECT NUMBER: 6E06191	DATE: 12-08-97	FIGURE NO: 11

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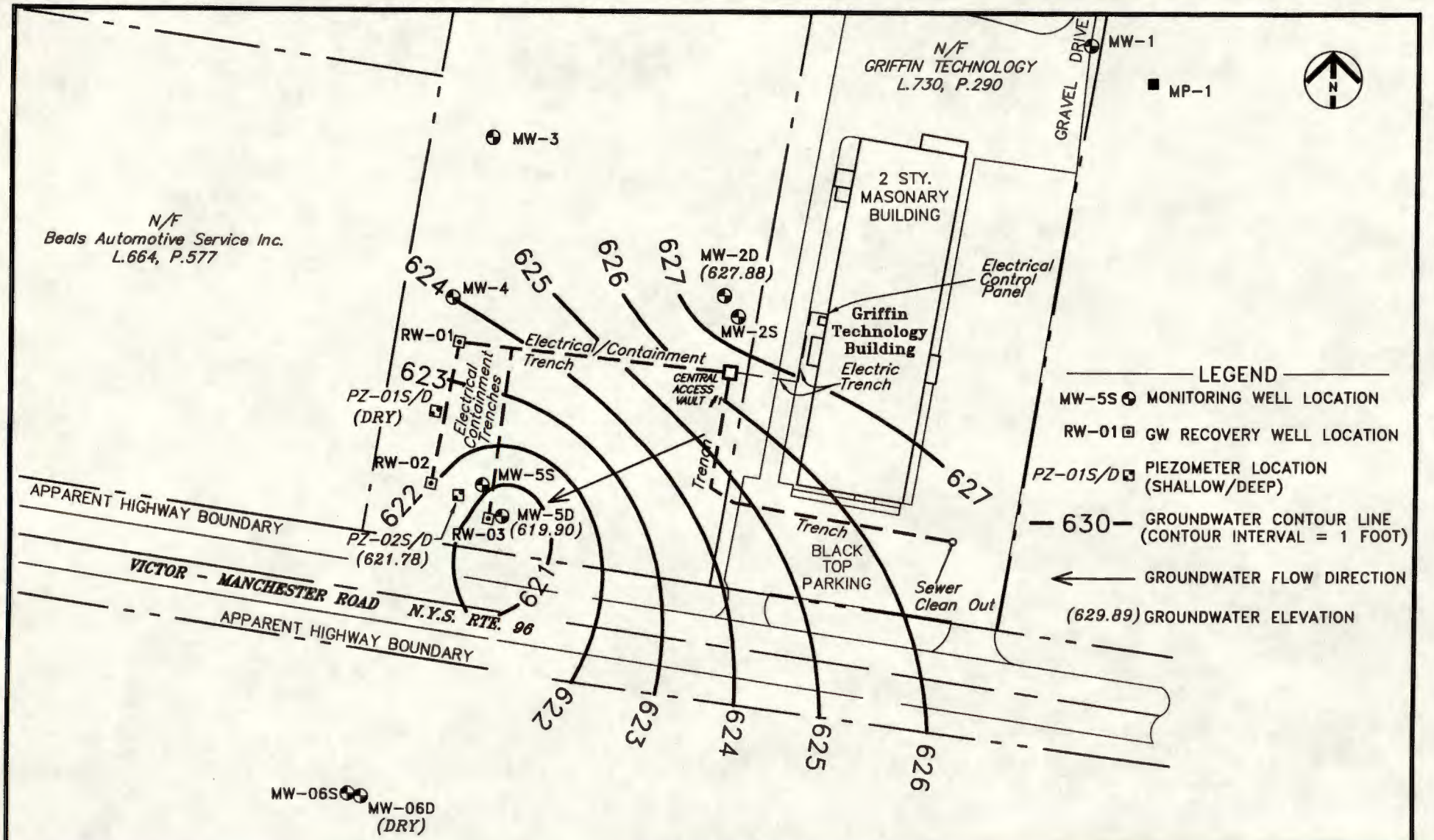
Woodward-Clyde



BEDROCK GROUNDWATER CONTOUR MAP
NOVEMBER 17, 1997
GRIFFIN TECHNOLOGY, INC. VICTOR, NEW YORK

DRAWN BY: MMS	CHECKED BY: KMA	PROJECT NUMBER: 6E06191	DATE: 12-08-97	FIGURE NO: 12

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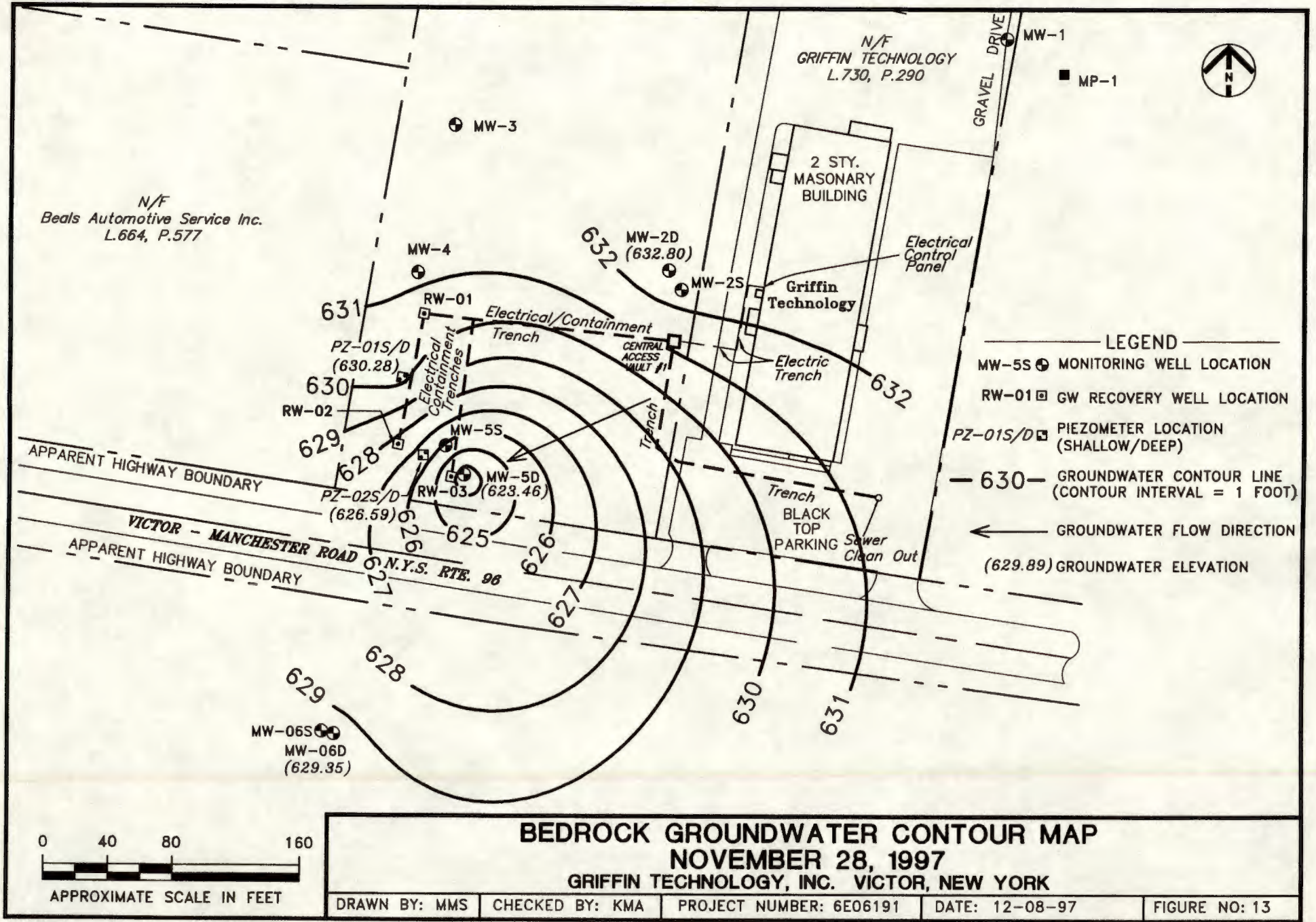

BEDROCK GROUNDWATER CONTOUR MAP
NOVEMBER 28, 1997
GRIFFIN TECHNOLOGY, INC. VICTOR, NEW YORK

DRAWN BY: MMS	CHECKED BY: KMA	PROJECT NUMBER: 6E06191	DATE: 12-08-97	FIGURE NO: 13

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Woodward-Clyde

Appendix A

Columbia Analytical Services Inc.

Effective 04/01/96

CAS LIST OF QUALIFIERS

(The basis of this proposal are the EPA-CLP Qualifiers)

U - Indicates compound was analyzed for but was not detected. The sample quantitation limit must be corrected for dilution and for percent moisture.

J - Indicates an estimated value. For further explanation see case narrative / cover letter.

B - This flag is used when the analyte is found in the associated blank as well as in the sample.

E - This flag identifies compounds whose concentrations exceed the calibration range.

A - This flag indicates that a TIC is a suspected aldol-condensation product.

N - Spiked sample recovery not within control limits.
(Flag the entire batch - Inorganic analysis only)

* - Duplicate analysis not within control limits.
(Flag the entire batch - Inorganic analysis only)

- Also used to qualify Organics QC data outside limits.

D - Spike diluted out.

S - Reported value determined by Method of Standard Additions. (MSA)

X - As specified in the case narrative.

CAS Lab ID # for State Certifications

NY ID # in Rochester:	10145	NJ ID # in Rochester:	73004
CT ID # in Rochester:	PH0556	RI ID # in Rochester:	158
MA ID # in Rochester:	M-NY032		

VOLATII ORGANICS
METHOD 8260 TCL
Reported: 09/24/97

Woodward Clyde Consultants
Project Reference: GRIFFIN IRM
Client Sample ID : EFF-9-16-97

Date Sampled : 09/16/97 **Order #:** 167959 **Sample Matrix:** WATER
Date Received: 09/16/97 **Submission #:** 9709000223 **Analytical Run** 20251

DATE ANALYZED : 09/19/97
ANALYTICAL DILUTION: 5.0

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	100 U	UG/L
BENZENE	5.0	25 U	UG/L
BROMODICHLOROMETHANE	5.0	25 U	UG/L
BROMOFORM	5.0	25 U	UG/L
BROMOMETHANE	5.0	25 U	UG/L
2-BUTANONE (MEK)	10	50 U	UG/L
CARBON DISULFIDE	10	50 U	UG/L
CARBON TETRACHLORIDE	5.0	25 U	UG/L
CHLOROBENZENE	5.0	25 U	UG/L
CHLOROETHANE	5.0	25 U	UG/L
CHLOROFORM	5.0	25 U	UG/L
CHLOROMETHANE	5.0	25 U	UG/L
DIBROMOCHLOROMETHANE	5.0	25 U	UG/L
1,1-DICHLOROETHANE	5.0	25 U	UG/L
1,2-DICHLOROETHANE	5.0	25 U	UG/L
1,1-DICHLOROETHENE	5.0	25 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	25 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	25 U	UG/L
1,2-DICHLOROPROPANE	5.0	25 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	25 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	25 U	UG/L
ETHYLBENZENE	5.0	25 U	UG/L
2-HEXANONE	10	50 U	UG/L
METHYLENE CHLORIDE	5.0	25 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	50 U	UG/L
STYRENE	5.0	25 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	25 U	UG/L
TETRACHLOROETHENE	5.0	25 U	UG/L
TOLUENE	5.0	25 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	25 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	25 U	UG/L
TRICHLOROETHENE	5.0	810	UG/L
VINYL CHLORIDE	5.0	25 U	UG/L
O-XYLENE	5.0	25 U	UG/L
M+P-XYLENE	5.0	25 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	99	%
TOLUENE-D8	(88 - 110 %)	101	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	98	%

COLUMBIA ANALYTICAL RVICES

VOLATIL ORGANICS
METHOD 8260 TCL
Reported: 09/24/97

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 168665 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 20251

DATE ANALYZED : 09/19/97
ANALYTICAL DILUTION: 1.0

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	98	%
TOLUENE-D8	(88 - 110 %)	99	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	98	%

[redacted] COLUMBIA ANALYTICAL SERVICES, INC. [redacted]

1 Mustard St., Suite 250, P.O. Box 90859, Rochester, NY 14609-0859

(716) 288-5380 • FAX (716) 288-8475

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

(800) 695-7222

DATE 9-16-97 PAGE 1 OF 1

PROJECT NAME Griffin IRM

PROJECT MANAGER/CONTACT Ken Armstrong

COMPANY/ADDRESS 30775 Bainbridge Rd, Ste 200

Solon, Ohio

TEL (216) 349-2708 FAX (216) 349-1514

SAMPLER'S SIGNATURE Bob Fabian

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX	# OF CONTAINERS	GC/MS VOA's ☐ 8260 ☐ 624	GC/MS SVOA's ☐ 8270A ☐ 625	GC VOA's ☐ 8010/8020 ☐ 601/602	PESTICIDES/PCB's ☐ 8080 ☐ 608	STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP	TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (LIST BELOW)	METALS, DISSOLVED (LIST BELOW)	8240							PRESERVATION pH < 2.0	pH > 12	Other
EFF-9-16-97	9-16-97	12:56		WATER	2											X									

RELINQUISHED BY:
Bob Fabian
Signature
Bob Fabian
Printed Name
WCC
Firm
9-16-97 14:25
Date/Time

RECEIVED BY:
Andy Toomey
Signature
Andy Toomey
Printed Name
Firm
9-16-97 1425
Date/Time

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Tom Hastings
Signature
Tom Hastings
Printed Name
Firm
9/16/97 14:25
Date/Time

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS

__ 24 hr. __ 48 hr. __ 5 day

✓ Standard (10-15 working days)

__ Provide Verbal Preliminary Results

__ Provide FAX Preliminary Results

Requested Report Date _____

REPORT REQUIREMENTS

✓ 1. Routine Report

__ 2. Routine Rep. w/CASE Narrative

__ 3. EPA Level III Validatable Package

__ 4. N.J. Reduced Deliverables Level IV

__ 5. NY ASP/CLP Deliverables

__ 6. Site specific QC.

INVOICE INFORMATION:

P.O. #:

Bill To:

SAMPLE RECEIPT:

Shipping Via: _____

Shipping #: _____

Temperature: _____

Submission No: 9709223

SPECIAL INSTRUCTIONS/COMMENTS:

METALS

ORGANICS: ☐ TCL ☐ PPL ☐ AE Only ☐ BN Only ☐ Special List

65 RAMAPO VALLEY ROAD
MAHWAH, NJ 07430
201-512-3292
FAX 201-512-3362

309 WEST RIDLEY AVE.
RIDLEY PARK, PA 19078
610-521-3083
FAX 610-521-4589

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260 TCL
Reported: 10/30/97

Woodward Clyde Consultants
Project Reference: GRIFFIN IRM
Client Sample ID : EFF-10-15-97

Date Sampled : 10/15/97 **Order #:** 173516 **Sample Matrix:** WATER
Date Received: 10/15/97 **Submission #:** 9710000235 **Analytical Run** 21177

DATE ANALYZED : 10/22/97
ANALYTICAL DILUTION: 1.0

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	10	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	18	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	880	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	87	%
TOLUENE-D8	(88 - 110 %)	105	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	99	%

COLUMBIA ANALYTICAL . .RVICES

VOLATI ORGANICS
METHOD 8260 TCL
Reported: 10/30/97

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 174732 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 21177

ANALYTE	PQL	RESULT	UNITS
DATE ANALYZED : 10/22/97			
ANALYTICAL DILUTION: 1.0			
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	104	%
TOLUENE-D8	(88 - 110 %)	102	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	100	%

[redacted] [redacted]DLU[redacted]A A[redacted]LYTI[redacted] SE[redacted]CES,[redacted]. [redacted]
1 Mustard St., Suite 250, P.O. Box 90859, Rochester, NY 14609-0859
(716) 288-5380 • FAX (716) 288-8475

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

(800) 695-7222

DATE 10-15-97 PAGE 1 OF 1

PROJECT NAME Griffin IRM
PROJECT MANAGER/CONTACT Ken Armstrong
COMPANY/ADDRESS 30775 Bainbridge Rd., Ste 200 Solon, Ohio
TEL (216) 349-2708 FAX (216) 349-1514
SAMPLER'S SIGNATURE Bob Fabian

ANALYSIS REQUESTED

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX	# OF CONTAINERS	GC/MS VOA's ☐ 8260 ☐ 624	GC/MS SVOA's ☐ 8270A ☐ 625	GC VOA's ☐ 8010/8020 ☐ 601/602	PESTICIDES/PCB's ☐ 8080 ☐ 608	STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP	TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (LIST BELOW)	METALS, DISSOLVED (LIST BELOW)	8240							PRESERVATION pH < 2.0	pH > 12	Other
EFF-10-15-97	10-15-97	13:25	173516	WATER	2											X									

RELINQUISHED BY:
Signature Bob Fabian
Printed Name Bob Fabian
Firm WCC
Date/Time 10-15-97 14:25

RECEIVED BY:
Signature Tom Hastings
Printed Name Tom Hastings
Firm ERLS
Date/Time 10/15/97 14:25

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS
__ 24 hr. __ 48 hr. __ 5 day
__ Standard (10-15 working days)
__ Provide Verbal Preliminary Results
__ Provide FAX Preliminary Results
Requested Report Date _____

REPORT REQUIREMENTS
__ 1. Routine Report
__ 2. Routine Rep. w/CASE Narrative
__ 3. EPA Level III Validatable Package
__ 4. N.J. Reduced Deliverables Level IV
__ 5. NY ASP/CLP Deliverables
__ 6. Site specific QC.

INVOICE INFORMATION:
P.O. #:
Bill To:

SAMPLE RECEIPT:
Shipping Via: Client
Shipping #:
Temperature: NA
Submission No: 97-10-235

SPECIAL INSTRUCTIONS/COMMENTS:
METALS
ORGANICS: ☐ TCL ☐ PPL ☐ AE Only ☐ BN Only ☐ Special List

65 RAMAPO VALLEY ROAD
MAHWAH, NJ 07430
201-512-3292
FAX 201-512-3362

309 WEST RIDLEY AVE.
RIDLEY PARK, PA 19078
610-521-3083
FAX 610-521-4589

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260 TCL
Reported: 12/02/97

Woodward Clyde Consultants
Project Reference: GRIFFIN IRM
Client Sample ID : EFF-11-17-97

Date Sampled : 11/17/97 **Order #:** 178151 **Sample Matrix:** WATER
Date Received: 11/17/97 **Submission #:** 9711000226 **Analytical Run** 22028

DATE ANALYZED : 11/19/97
ANALYTICAL DILUTION: 2.0

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	40 U	UG/L
BENZENE	5.0	10 U	UG/L
BROMODICHLOROMETHANE	5.0	10 U	UG/L
BROMOFORM	5.0	10 U	UG/L
BROMOMETHANE	5.0	10 U	UG/L
2-BUTANONE (MEK)	10	20 U	UG/L
CARBON DISULFIDE	10	20 U	UG/L
CARBON TETRACHLORIDE	5.0	10 U	UG/L
CHLOROBENZENE	5.0	10 U	UG/L
CHLOROETHANE	5.0	10 U	UG/L
CHLOROFORM	5.0	10 U	UG/L
CHLOROMETHANE	5.0	10 U	UG/L
DIBROMOCHLOROMETHANE	5.0	10 U	UG/L
1,1-DICHLOROETHANE	5.0	10 U	UG/L
1,2-DICHLOROETHANE	5.0	10 U	UG/L
1,1-DICHLOROETHENE	5.0	10 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	12	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	10 U	UG/L
1,2-DICHLOROPROPANE	5.0	10 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	10 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	10 U	UG/L
ETHYLBENZENE	5.0	10 U	UG/L
2-HEXANONE	10	20 U	UG/L
METHYLENE CHLORIDE	5.0	10 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	20 U	UG/L
STYRENE	5.0	10 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	10 U	UG/L
TETRACHLOROETHENE	5.0	10 U	UG/L
TOLUENE	5.0	10 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	17	UG/L
1,1,2-TRICHLOROETHANE	5.0	10 U	UG/L
TRICHLOROETHENE	5.0	690	UG/L
VINYL CHLORIDE	5.0	10 U	UG/L
O-XYLENE	5.0	10 U	UG/L
M+P-XYLENE	5.0	10 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	93	%
TOLUENE-D8	(88 - 110 %)	95	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	94	%

COLUMBIA ANALYTICAL SERVICES

VOLATILE ORGANICS
METHOD 8260 TCL
Reported: 12/02/97

Project Reference:
Client Sample ID : METHOD BLANK

Date Sampled : **Order #:** 180144 **Sample Matrix:** WATER
Date Received: **Submission #:** **Analytical Run** 22028

DATE ANALYZED : 11/19/97
ANALYTICAL DILUTION: 1.0

ANALYTE	PQL	RESULT	UNITS
ACETONE	20	20 U	UG/L
BENZENE	5.0	5.0 U	UG/L
BROMODICHLOROMETHANE	5.0	5.0 U	UG/L
BROMOFORM	5.0	5.0 U	UG/L
BROMOMETHANE	5.0	5.0 U	UG/L
2-BUTANONE (MEK)	10	10 U	UG/L
CARBON DISULFIDE	10	10 U	UG/L
CARBON TETRACHLORIDE	5.0	5.0 U	UG/L
CHLOROBENZENE	5.0	5.0 U	UG/L
CHLOROETHANE	5.0	5.0 U	UG/L
CHLOROFORM	5.0	5.0 U	UG/L
CHLOROMETHANE	5.0	5.0 U	UG/L
DIBROMOCHLOROMETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHANE	5.0	5.0 U	UG/L
1,2-DICHLOROETHANE	5.0	5.0 U	UG/L
1,1-DICHLOROETHENE	5.0	5.0 U	UG/L
CIS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
TRANS-1,2-DICHLOROETHENE	5.0	5.0 U	UG/L
1,2-DICHLOROPROPANE	5.0	5.0 U	UG/L
CIS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
TRANS-1,3-DICHLOROPROPENE	5.0	5.0 U	UG/L
ETHYLBENZENE	5.0	5.0 U	UG/L
2-HEXANONE	10	10 U	UG/L
METHYLENE CHLORIDE	5.0	5.0 U	UG/L
4-METHYL-2-PENTANONE (MIBK)	10	10 U	UG/L
STYRENE	5.0	5.0 U	UG/L
1,1,2,2-TETRACHLOROETHANE	5.0	5.0 U	UG/L
TETRACHLOROETHENE	5.0	5.0 U	UG/L
TOLUENE	5.0	5.0 U	UG/L
1,1,1-TRICHLOROETHANE	5.0	5.0 U	UG/L
1,1,2-TRICHLOROETHANE	5.0	5.0 U	UG/L
TRICHLOROETHENE	5.0	5.0 U	UG/L
VINYL CHLORIDE	5.0	5.0 U	UG/L
O-XYLENE	5.0	5.0 U	UG/L
M+P-XYLENE	5.0	5.0 U	UG/L

SURROGATE RECOVERIES	QC LIMITS		
4-BROMOFLUOROBENZENE	(86 - 115 %)	100	%
TOLUENE-D8	(88 - 110 %)	99	%
DIBROMOFLUOROMETHANE	(86 - 118 %)	96	%

[redacted] COLUMBIA ANALYTICAL SERVICES, INC. [redacted]

1 Mustard St., Suite 250, P.O. Box 90859, Rochester, NY 14609-0859

(716) 288-5380 • FAX (716) 288-8475

CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

(800) 695-7222

DATE 11-17-97 PAGE 1 OF 1

PROJECT NAME Griffin IRM

PROJECT MANAGER/CONTACT Ken Armstrong

COMPANY/ADDRESS 30775 Bainbridge Rd, Ste 200
Solon, Ohio

TEL (216) 349-2708 FAX (216) 349-1574

SAMPLER'S SIGNATURE Bob Fabian

SAMPLE I.D.	DATE	TIME	LAB I.D.	SAMPLE MATRIX	# OF CONTAINERS	GC/MS VOA's ☐ 8260 ☐ 624	GC/MS SVOA's ☐ 8270A ☐ 625	GC VOA's ☐ 8010/8020 ☐ 601/602	PESTICIDES/PCB's ☐ 8080 ☐ 608	STAR'S LIST 8021 VOA's ☐ TOTAL ☐ TCLP	STAR'S LIST 8270 SVOA's ☐ TOTAL ☐ TCLP	TCLP ☐ METALS ☐ VOA's ☐ SVOA's ☐ H/P	WASTE CHARACTERIZATION ☐ React ☐ Corros. ☐ Ignit.	METALS, TOTAL (LIST BELOW)	METALS, DISSOLVED (LIST BELOW)	8240							PRESERVATION pH < 2.0	PRESERVATION pH > 12	PRESERVATION Other
EFF-11-17-97	111797	10:40	178151	W	2											X								

RELINQUISHED BY:
Signature: Bob Fabian
Printed Name: Bob Fabian
Firm: WCC
Date/Time: 11-17-97 11:30

RECEIVED BY:
Signature: V Gardner
Printed Name: V Gardner
Firm: CAS
Date/Time: 11/17/97 1130

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

RELINQUISHED BY:
Signature
Printed Name
Firm
Date/Time

RECEIVED BY:
Signature
Printed Name
Firm
Date/Time

TURNAROUND REQUIREMENTS
__ 24 hr. __ 48 hr. __ 5 day
✓ Standard (10-15 working days)
__ Provide Verbal Preliminary Results
__ Provide FAX Preliminary Results
Requested Report Date

REPORT REQUIREMENTS
✓ 1. Routine Report
__ 2. Routine Rep. w/CASE Narrative
__ 3. EPA Level III Validatable Package
__ 4. N.J. Reduced Deliverables Level IV
__ 5. NY ASP/CLP Deliverables
__ 6. Site specific QC

INVOICE INFORMATION:
P.O. #:
Bill To:

SAMPLE RECEIPT:
Shipping Via: client
Shipping #:
Temperature: 40C
Submission No: 97-11-226

SPECIAL INSTRUCTIONS/COMMENTS:
METALS
ORGANICS: ☐ TCL ☐ PPL ☐ AE Only ☐ BN Only ☐ Special List

65 RAMAPO VALLEY ROAD, MAHWAH, NJ 07430 201-512-3292 FAX 201-512-3362
309 WEST RIDLEY AVE., RIDLEY PARK, PA 19078 610-521-3083 FAX 610-521-4589