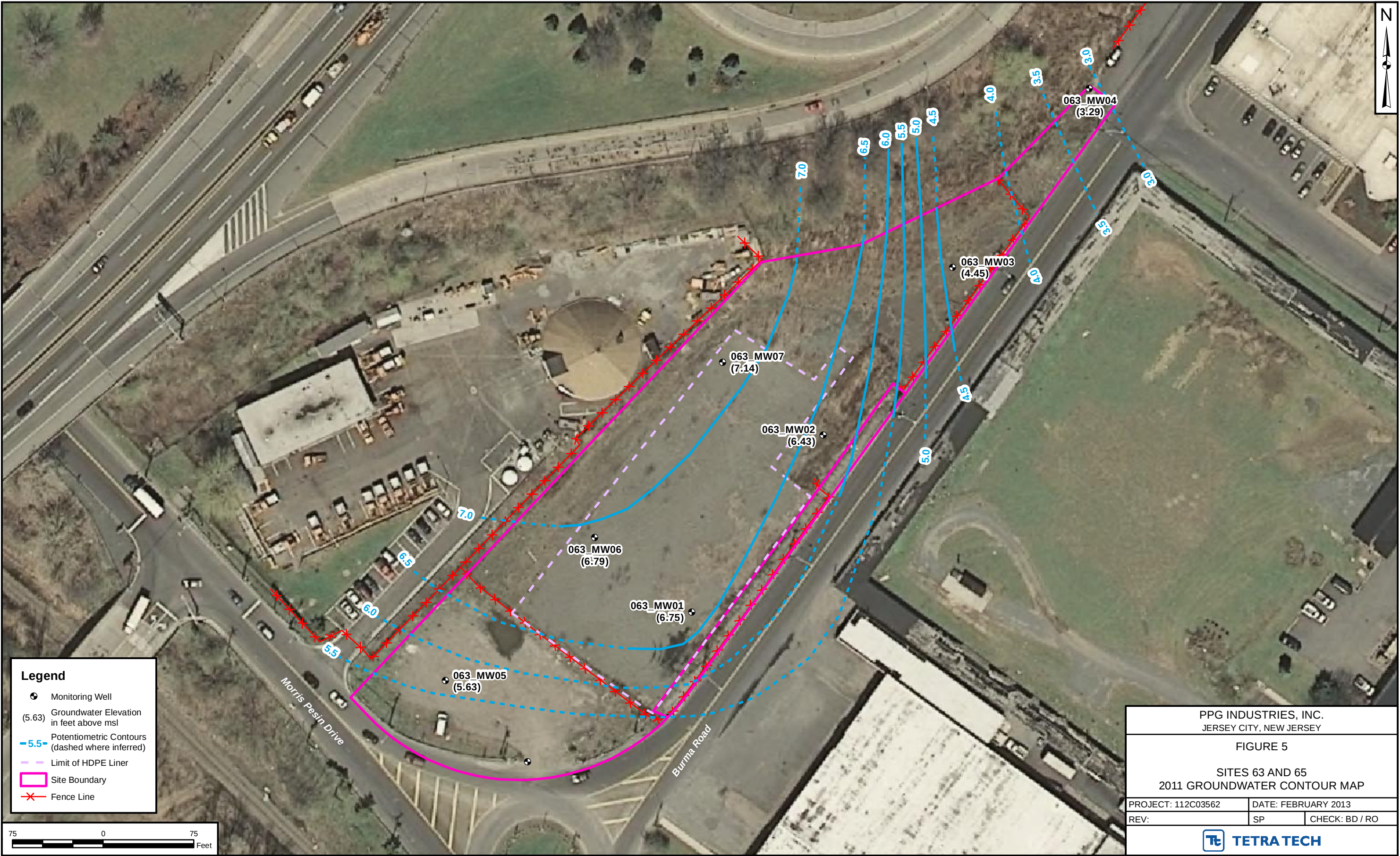
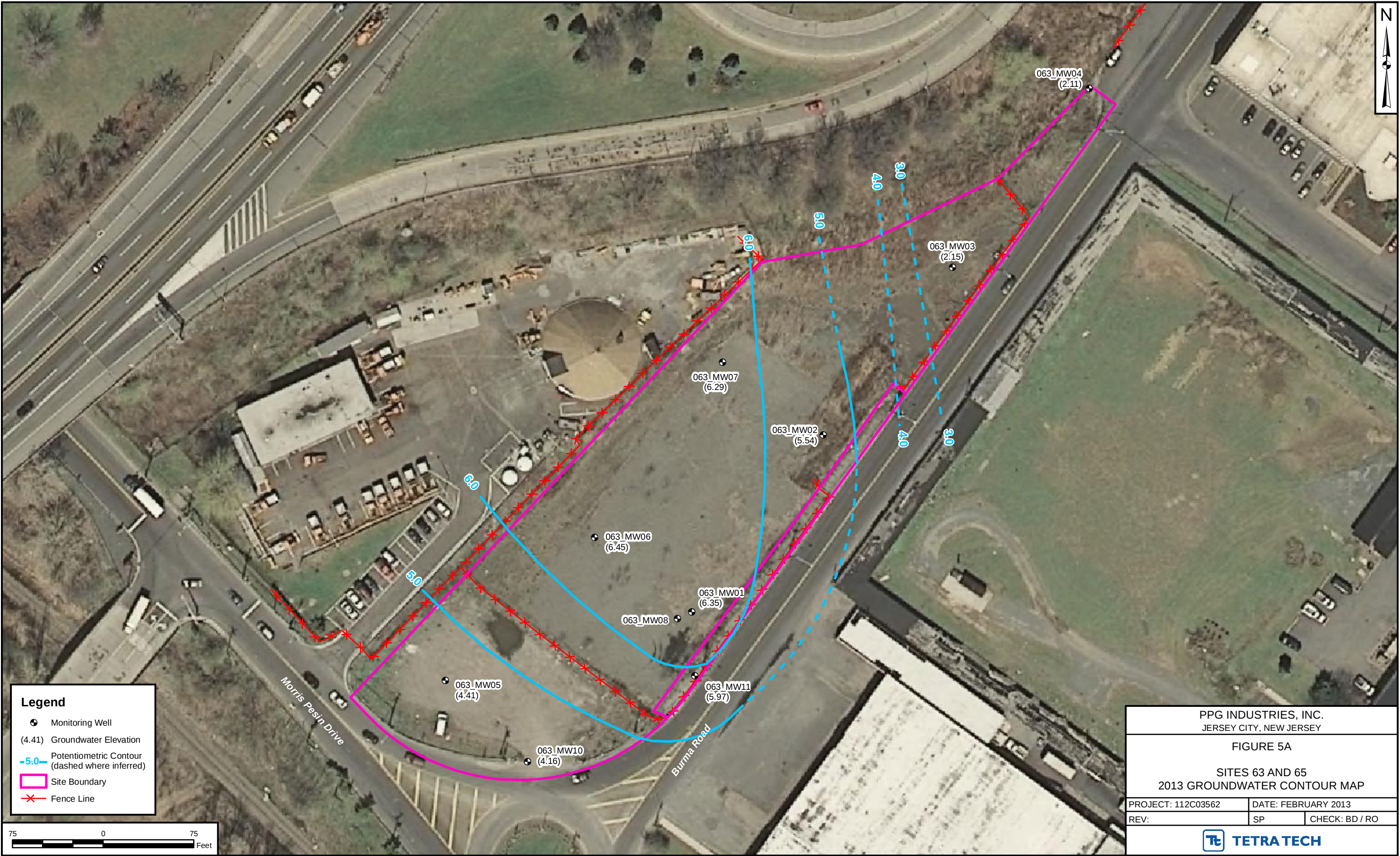
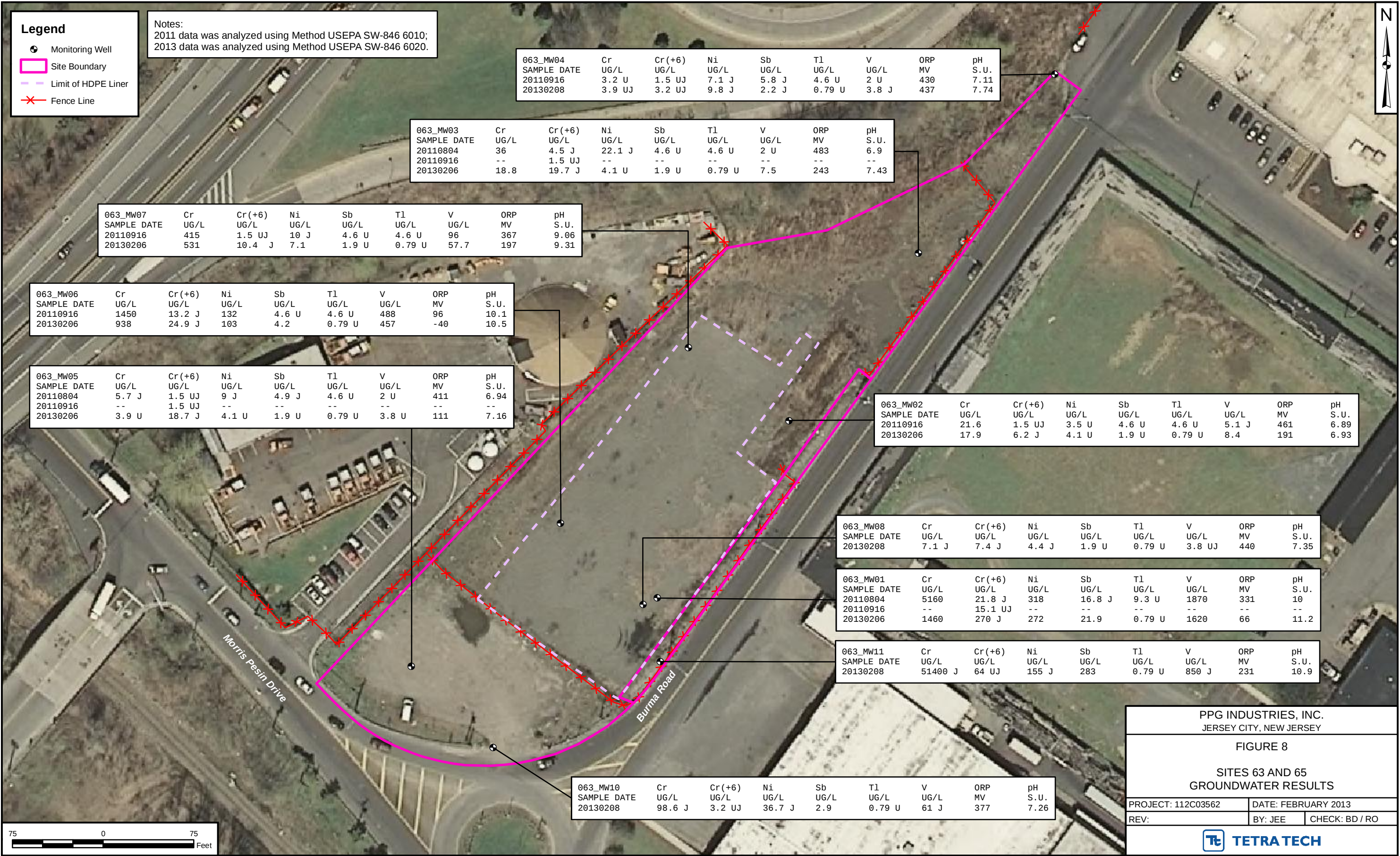
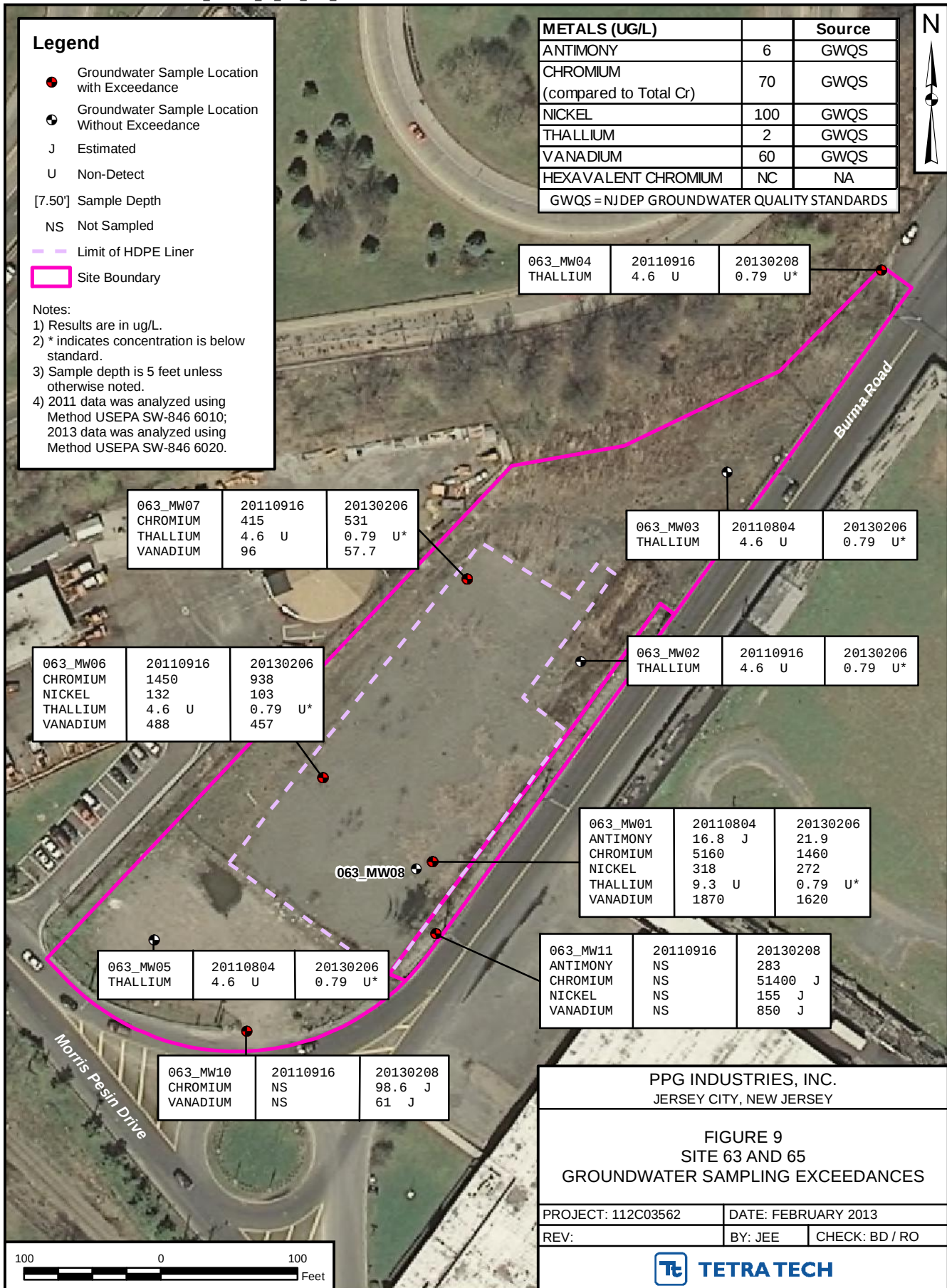


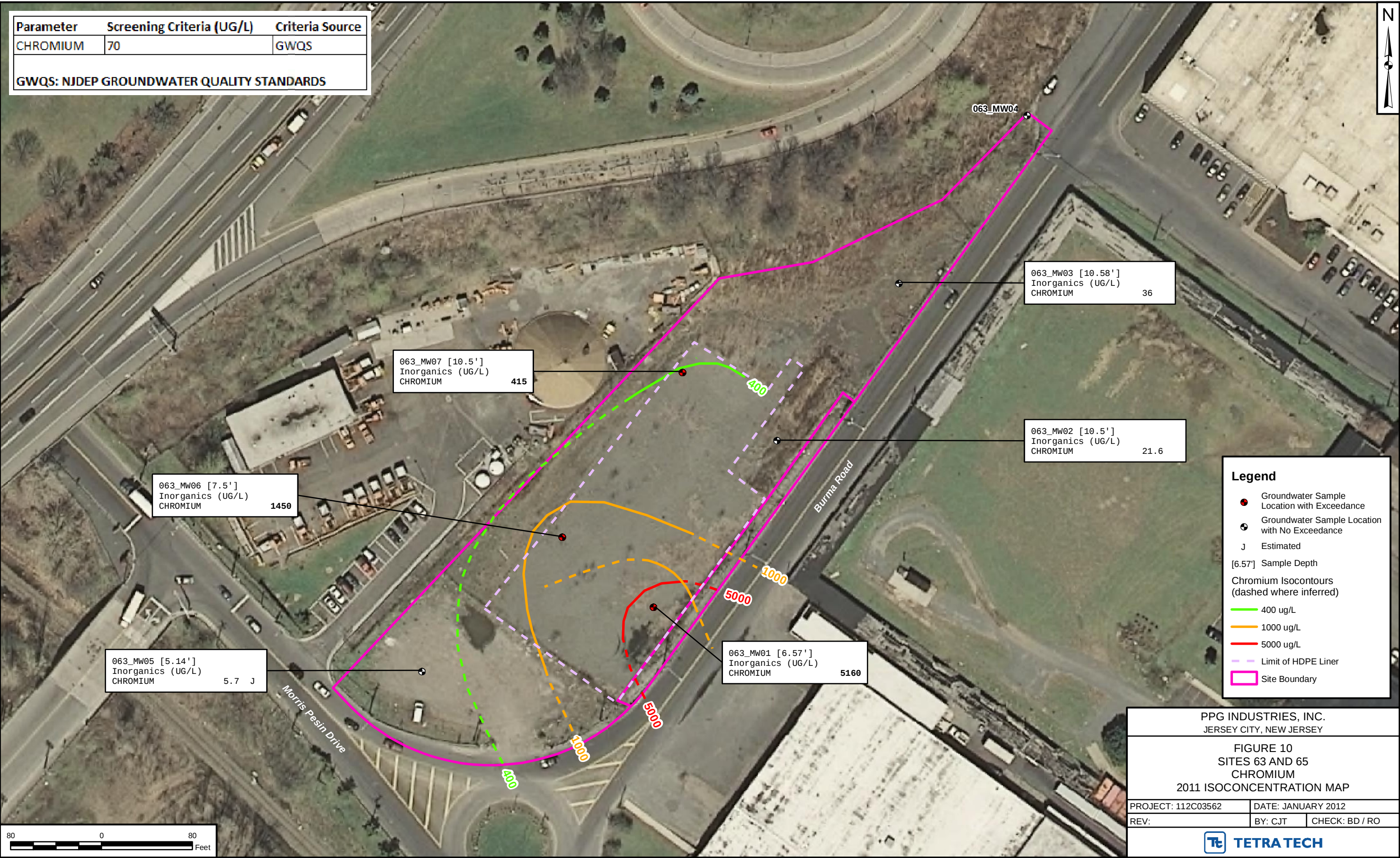
Appendix A-1 Tetra Tech RIR (April 2013)

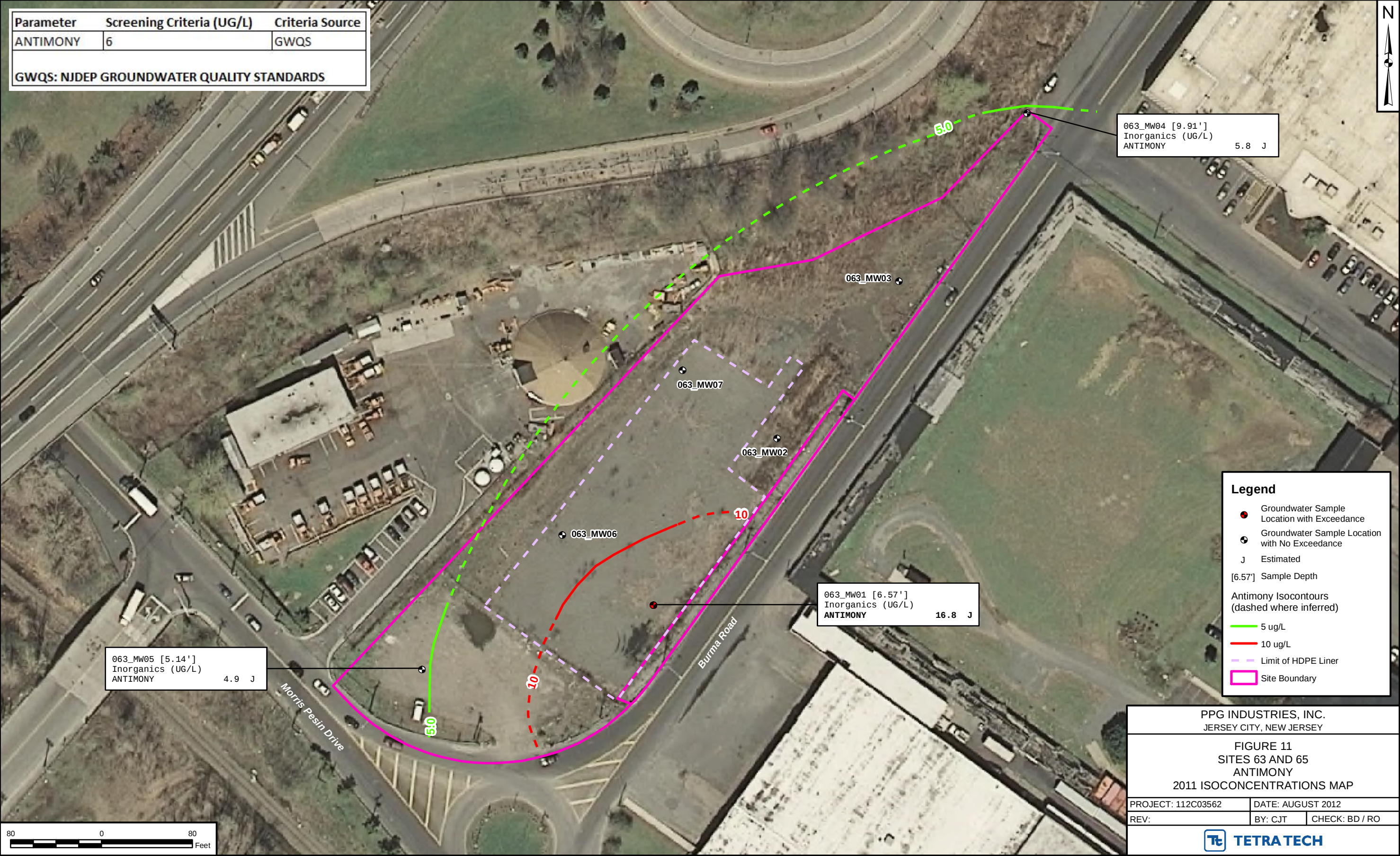




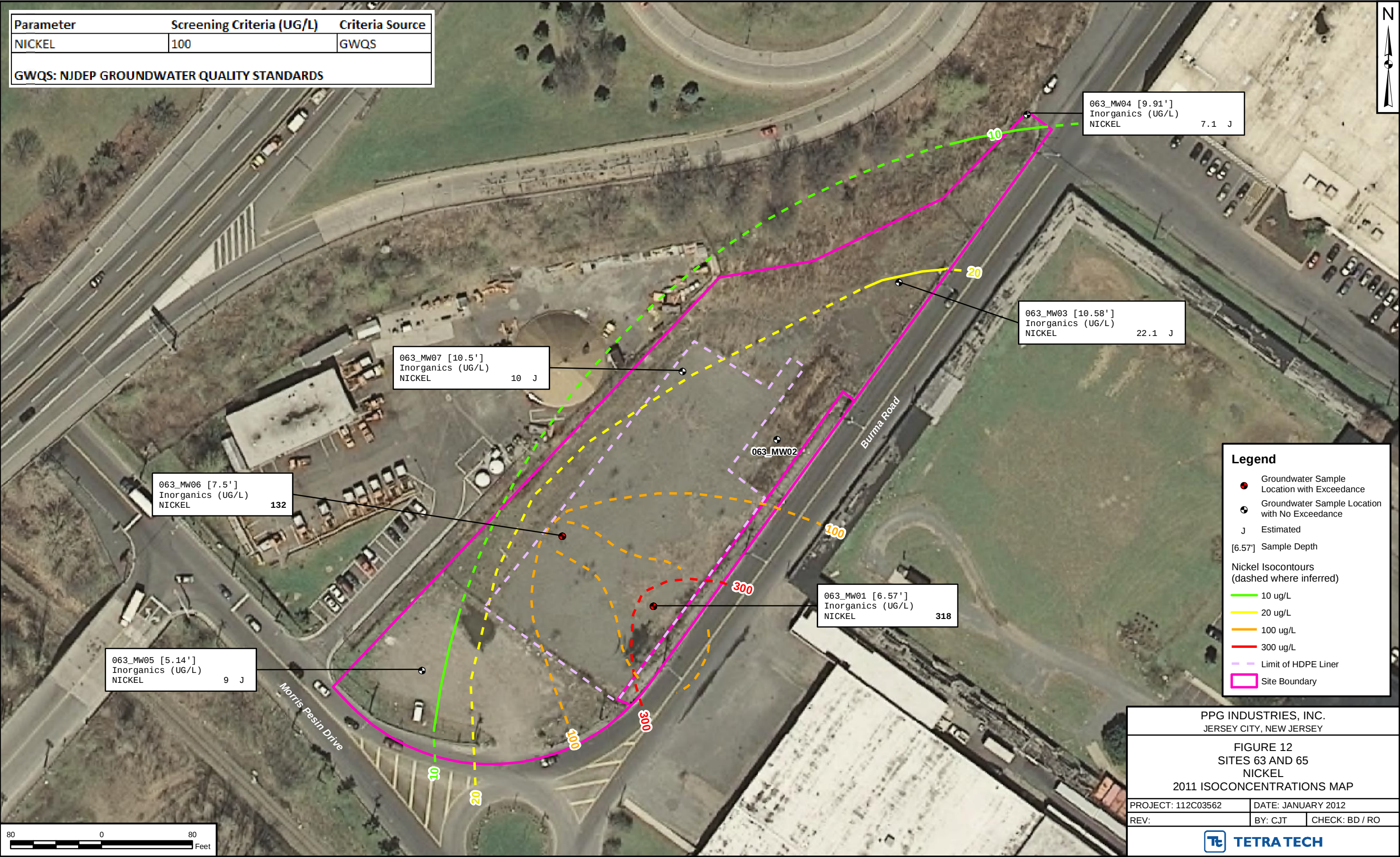


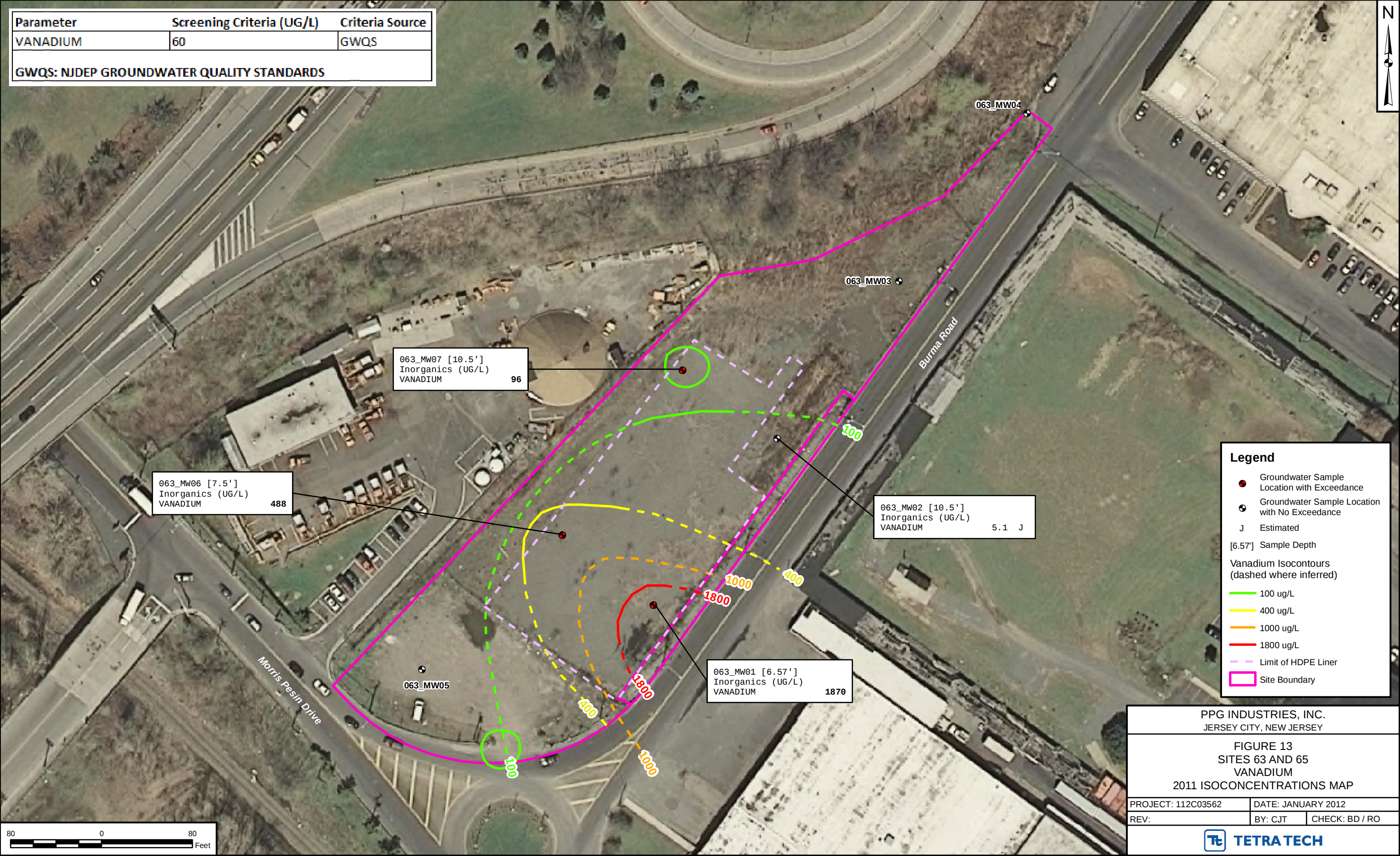


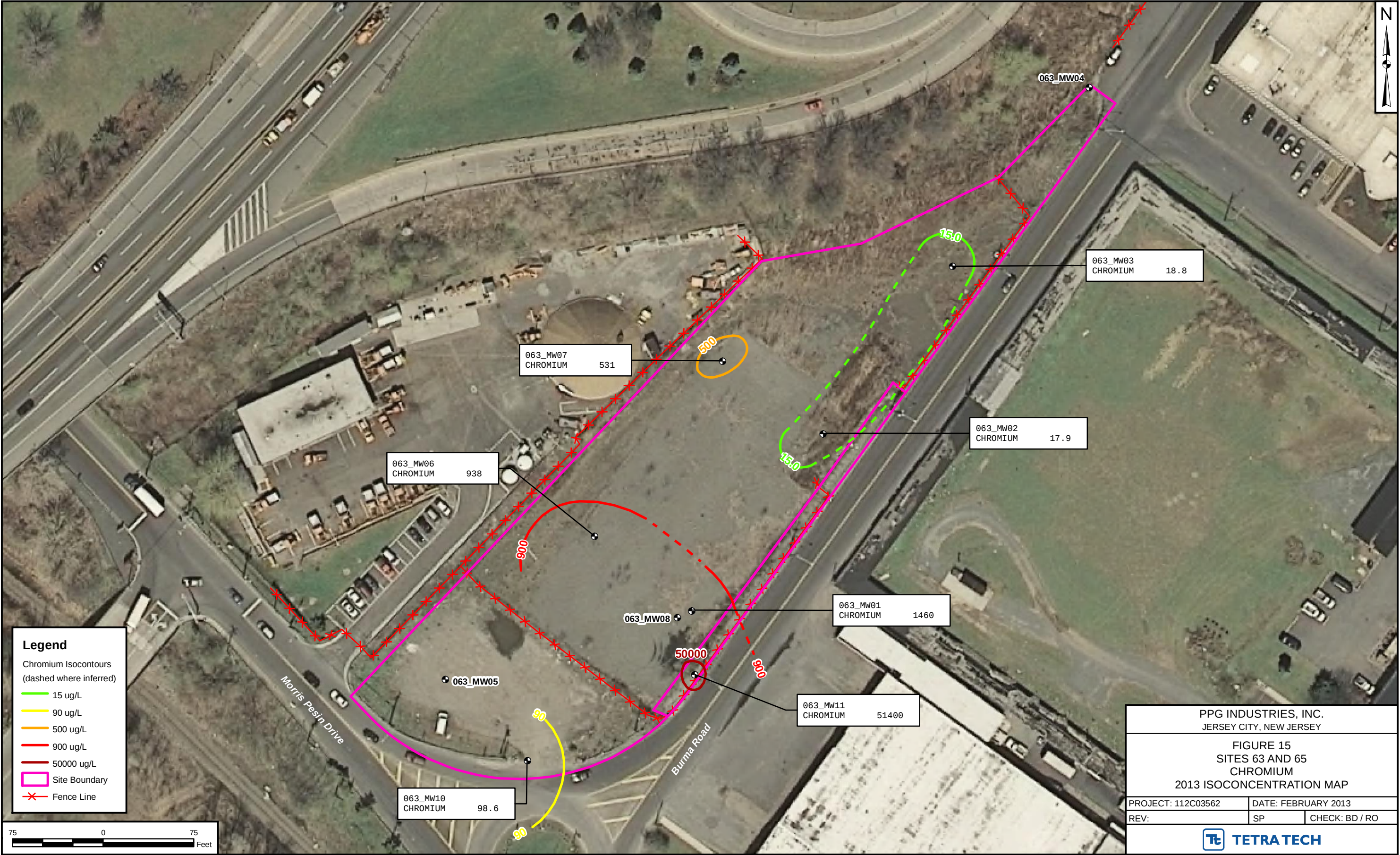


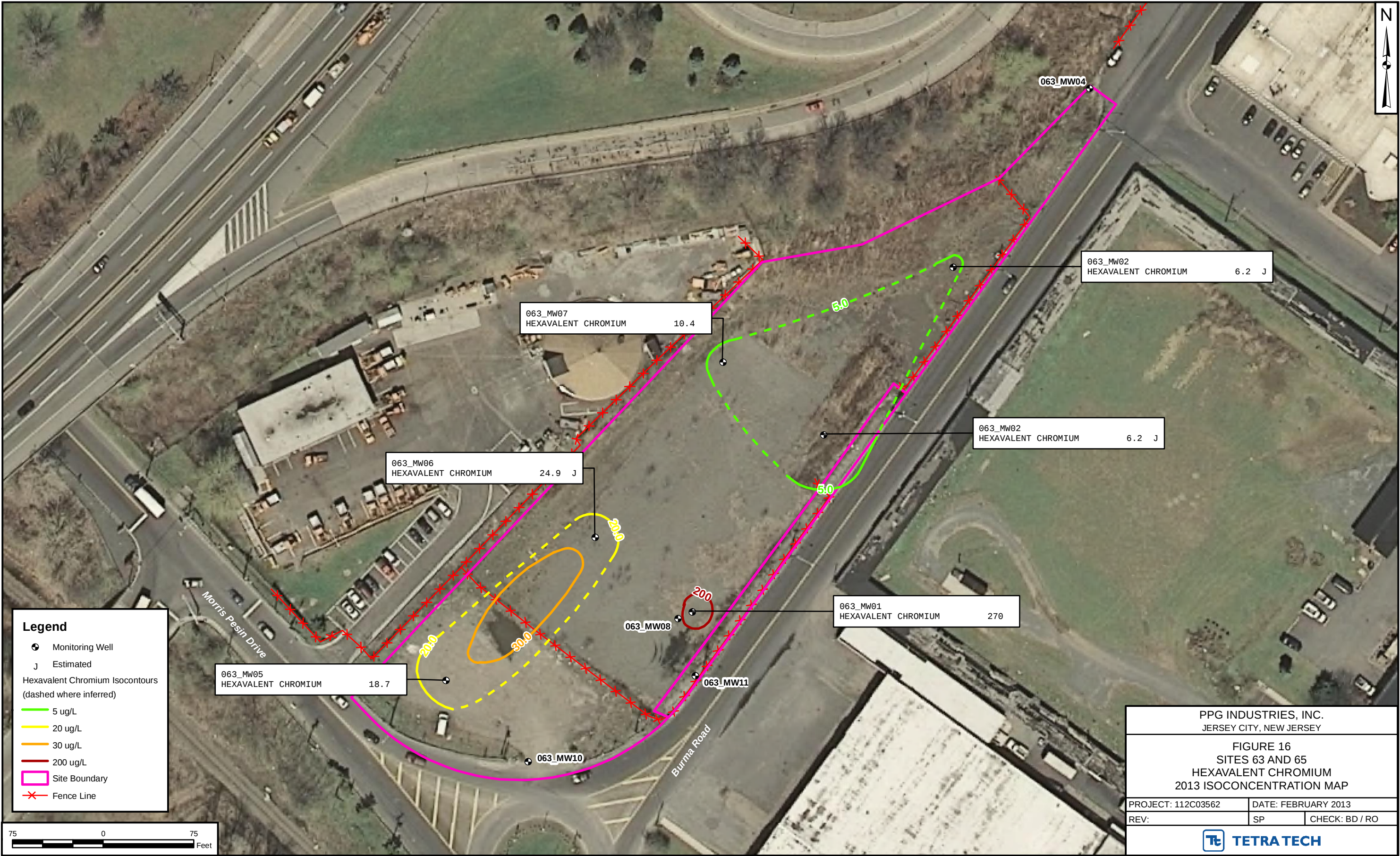


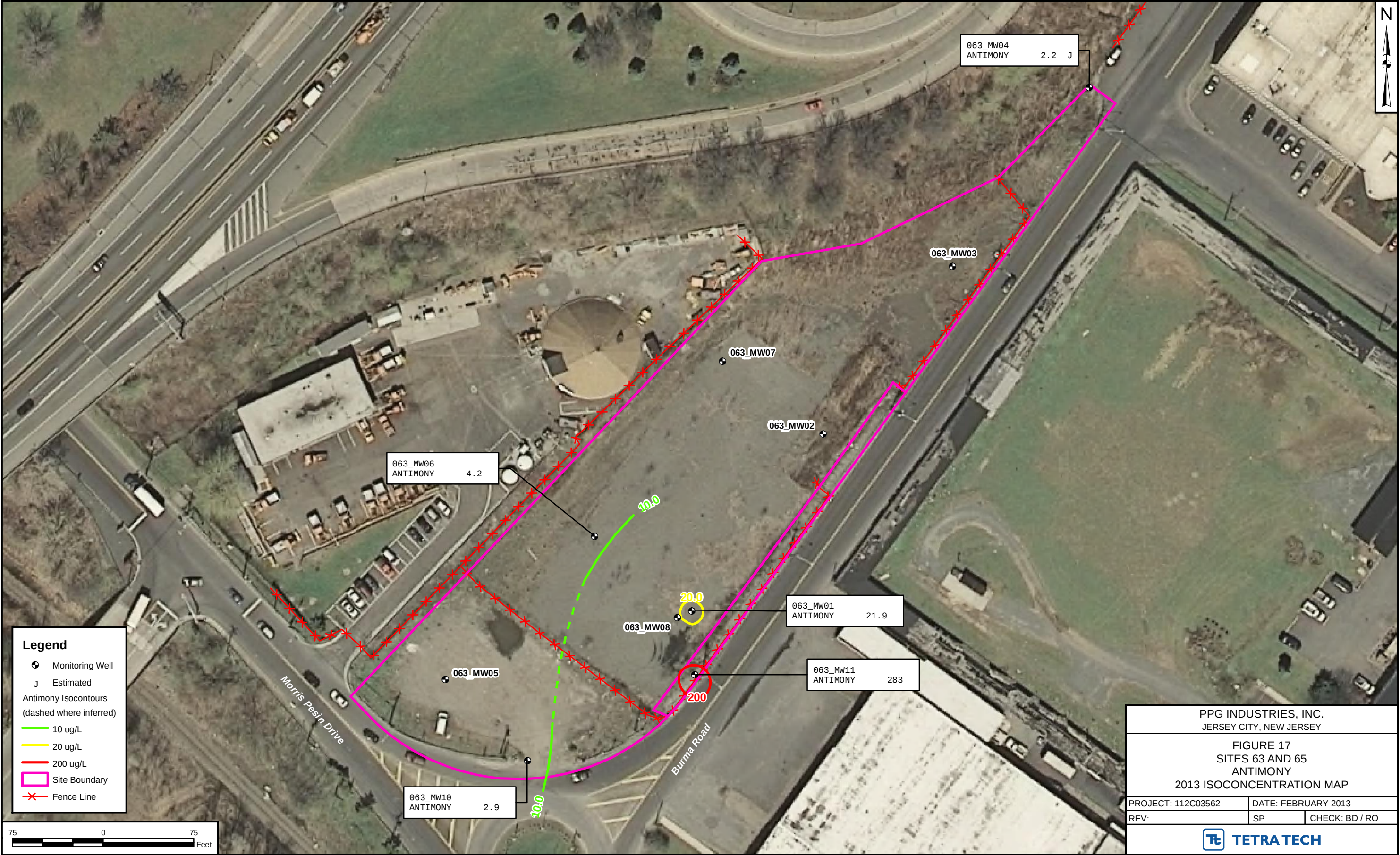
Parameter	Screening Criteria (UG/L)	Criteria Source
NICKEL	100	GWQS
GWQS: NJDEP GROUNDWATER QUALITY STANDARDS		

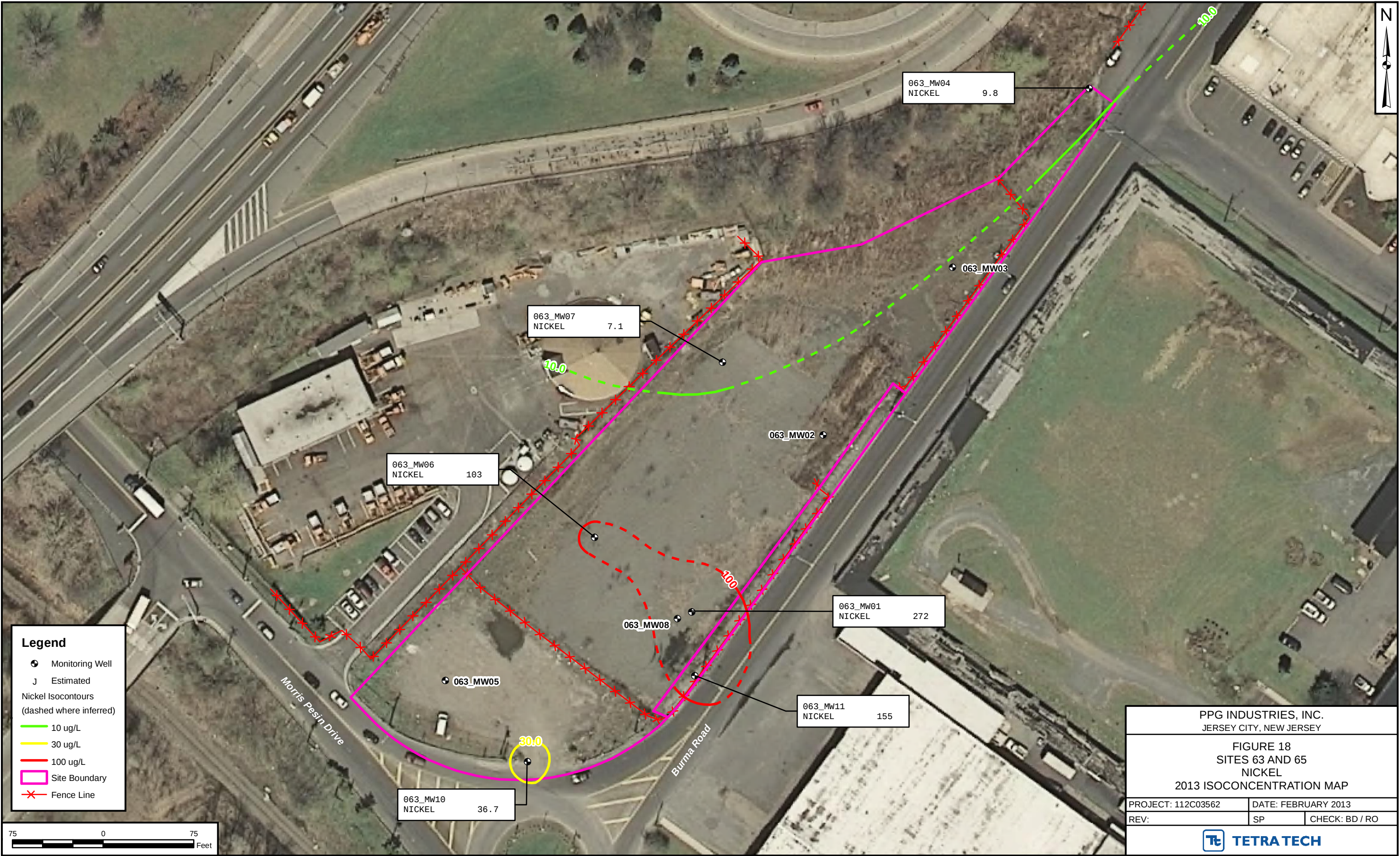












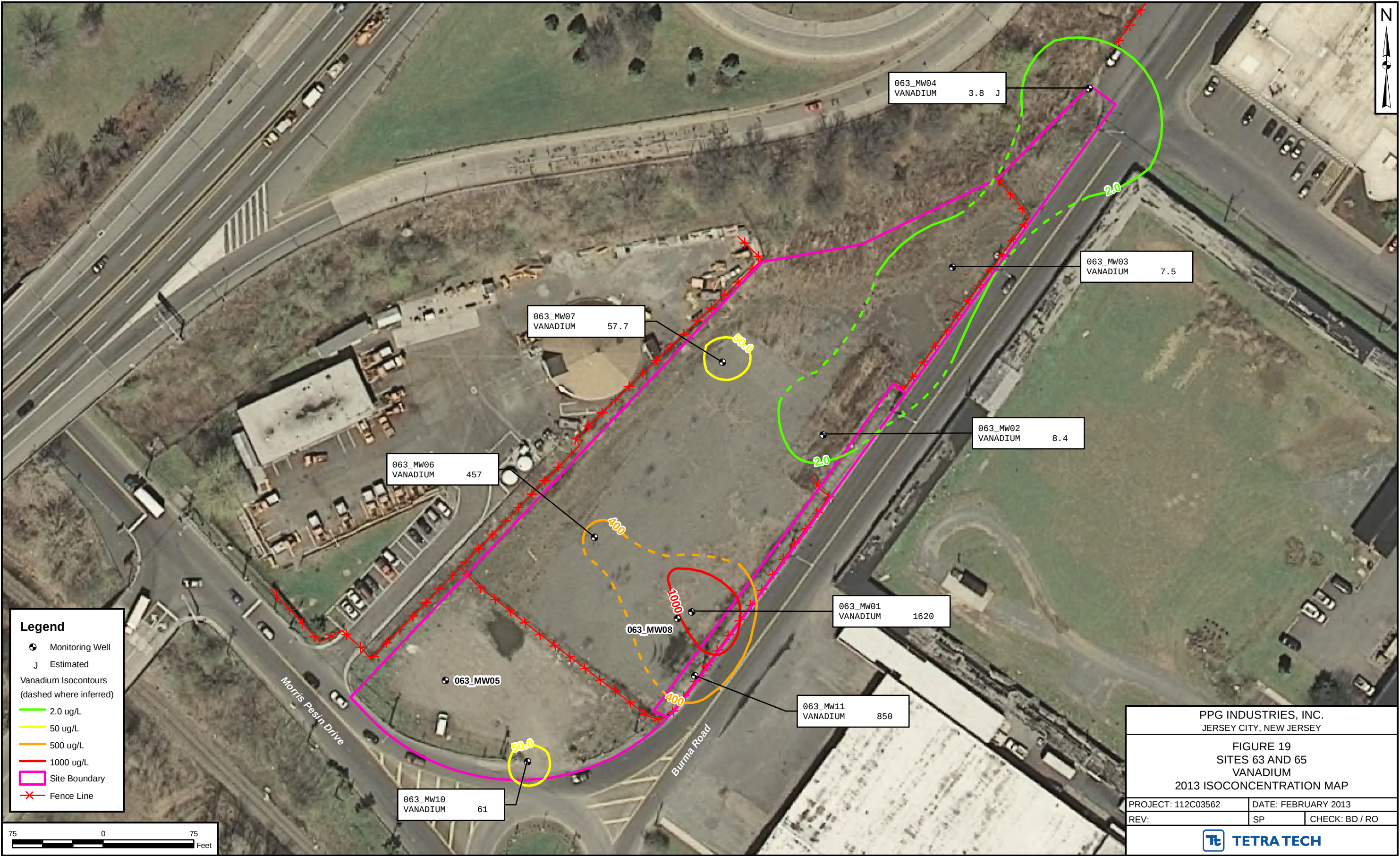


Table 3
Monitoring Well Characteristics
Sites 63 and 65 Remedial Investigation Report
PPG Industries, Inc.
Jersey City, New Jersey
Page 1 of 1

MONITORING WELL	NORTHING	EASTING	ELEVATION TOP OF CASING (feet)	CORRESPONDING SOIL BORING	TOTAL DEPTH (feet)	SCREEN INTERVAL (ft bgs)	MEASURED SEPTEMBER 16, 2011		MEASURED FEBRUARY 6, 2013	
							DEPTH TO GROUNDWATER (feet)	GROUNDWATER ELEVATION (feet msl)	DEPTH TO GROUNDWATER (feet)	GROUNDWATER ELEVATION (feet msl)
063 MW01	680335.76	618853.89	10.05	063 B006	7	2 to 7	3.70	6.35	3.41	6.64
063 MW02	680482.47	612364.8	11.09	063 B009	10	5 to 10	5.55	5.54	5	6.09
063 MW03	680620.65	612469.8	10.33	063 B012	10	5 to 10	8.18	2.15	7.45	2.88
063 MW04	680768.35	621582.68	10.11	063 B015	10	5 to 10	8.00	2.11	9.55	0.56
063 MW05	680279.34	612050.3	8.71	063 D003	7	2 to 7	4.30	4.41	3.50	5.21
063 MW06	680397.35	612173.77	11.00	063 D006	7	2 to 7	4.55	6.45	4.32	6.68
063 MW07	680542.35	612279.46	11.59	063 D009	10	5 to 10	5.30	6.29	4.50	7.09
063 MW08	680330.37	612242.15	9.54	063 B006A	19	14 to 19	NS	NS	5.80	3.74
063 MW10	680212.13	612118.15	7.92	063 Z002	7	2 to 7	NS	NS	3.75	4.17
063 MW11	680283.26	612256.4	10.17	063 Z005	9	4 to 9	NS	NS	3.90	6.27

NS = NOT SAMPLED

Table 9

Positive Hits Table for Groundwater Samples
Initial Investigation

Sites 63 and 65 Remedial Investigation Report
PPG Industries, Inc.
Jersey City, New Jersey

LOCATION SAMPLE ID SAMPLE DATE BOTTOM DEPTH	GROUNDWATER QUALITY STANDARD	STANDARD SOURCE	063_MW01		063_MW02	063_MW03		063_MW04
			063_MW01-20110804	063_MW01-20110916	063_MW02-20110916	063_MW03-20110804	063_MW03-20110916	063_MW04-20110916
			20110804	20110916	20110916	20110804	20110916	20110916
			6.57	6.65	10.5	10.58	10.5	9.91
METALS (UG/L)								
ANTIMONY	6	GWQS	16.8 J	NA	4.6 U	4.6 U	NA	5.8 J
CHROMIUM	70	GWQS	5160	NA	21.6	36	NA	3.2 U
NICKEL	100	GWQS	318	NA	3.5 U	22.1 J	NA	7.1 J
THALLIUM	2	GWQS	9.3 U	NA	4.6 U	4.6 U	NA	4.6 U
VANADIUM	60	GWQS	1870	NA	5.1 J	2 U	NA	2 U
MISCELLANEOUS PARAMETERS (MV)								
OXIDATION REDUCTION POTENTIAL	NC	NA	331	NA	461	483	NA	430
MISCELLANEOUS PARAMETERS (S.U.)								
PH	NC	NA	10	NA	6.89	6.9	NA	7.11
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NC	NA	21.8 J*	15.1 UJ	1.5 UJ	4.5 J*	1.5 UJ	1.5 UJ

U = NON-DETECT
J = ESTIMATED
NC = NO CRITERIA
NA = NOT APPLICABLE
GWQS = NJDEP GROUNDWATER QUALITY STANDARDS
EXCEEDS GWQS
NON-DETECT EXCEEDS GWQS
* = SAMPLE EXCEEDED HOLDING TIME

Table 9

Positive Hits Table for Groundwater Samples
Initial Investigation

Sites 63 and 65 Remedial Investigation Report
PPG Industries, Inc.
Jersey City, New Jersey

LOCATION	GROUNDWATER QUALITY STANDARD	063_MW05		063_MW06	063_MW07
SAMPLE ID		063_MW05-20110804	063_MW05-20110916	063_MW06-20110916	063_MW07-20110916
SAMPLE DATE		20110804	20110916	20110916	20110916
BOTTOM DEPTH		5.14	4.8	7.5	10.5
METALS (UG/L)					
ANTIMONY	6	4.9 J	NA	4.6 U	4.6 U
CHROMIUM	70	5.7 J	NA	1450	415
NICKEL	100	9 J	NA	132	10 J
THALLIUM	2	4.6 U	NA	4.6 U	4.6 U
VANADIUM	60	2 U	NA	488	96
MISCELLANEOUS PARAMETERS (MV)					
OXIDATION REDUCTION POTENTIAL	NC	411	NA	96	367
MISCELLANEOUS PARAMETERS (S.U.)					
PH	NC	6.94	NA	10.1	9.06
MISCELLANEOUS PARAMETERS (UG/L)					
HEXAVALENT CHROMIUM	NC	1.5 UJ*	1.5 UJ	13.2 J	1.5 UJ

U = NON-DETECT
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NC = NO CRITERIA
NA = NOT APPLICABLE
GWQS = NJDEP GROUNDWATER QUALITY STANDARDS
EXCEEDS GWQS
NON-DETECT EXCEEDS GWQS
* = SAMPLE EXCEEDED HOLDING TIME

Table 10

Frequency of Detection Table for Groundwater Samples
Initial Investigation

Sites 63 and 65 Remedial Investigation Report
PPG Industries, Inc.
Jersey City, New Jersey

Parameter	Frequency of Detection	Minimum Result	Minimum Qualifier	Maximum Result	Maximum Qualifier	Sample of Max Detect	Minimum Nondetect	Maximum Nondetect	Average of Positive Results	Overall Average	Standard Deviation	GWQS	Number of Detections Greater Than GWQS
METALS (UG/L)													
ANTIMONY	3/7	4.9	J	16.8	J	063_MW01-20110804	4.6	4.6	9.17	5.24	5.30	6	1/0
CHROMIUM	6/7	5.7	J	5160		063_MW01-20110804	3.2	3.2	1181.38	1012.84	1902.68	70	3/0
NICKEL	6/7	7.1	J	318		063_MW01-20110804	3.5	3.5	83.03	71.42	118.01	100	2/0
THALLIUM	0/7						4.6	9.3		2.64	0.89	2	0/7
VANADIUM	4/7	5.1	J	1870		063_MW01-20110804	2	2	614.78	351.73	692.62	60	3/0
MISCELLANEOUS PARAMETERS (UG/L)													
HEXAVALENT CHROMIUM	3/10	4.5	J	21.8	J	063_MW01-20110804	1.5	15.1	13.17	5.16	7.18	NC	NA
MISCELLANEOUS PARAMETERS (MV)													
OXIDATION REDUCTION POTENTIAL	7/7	96		483		063_MW03-20110804	NA	NA	368.43	368.43	130.97	NC	NA
MISCELLANEOUS PARAMETERS (S.U.)													
PH	7/7	6.89		10.1		063_MW06-20110916	NA	NA	8.14	8.14	1.51	NC	NA

GWQS = NJDEP GROUNDWATER QUALITY STANDARDS
J = ESTIMATED VALUE
NC = NO CRITERIA
NA = NOT APPLICABLE

Table 17

Positive Hits Table for Groundwater Samples
Delineation Investigation

Sites 63 and 65 Remedial Investigation Report
PPG Industries, Inc.
Jersey City, New Jersey

LOCATION SAMPLE ID SAMPLE DATE	GROUNDWATER QUALITY STANDARD	STANDARD SOURCE	063_MW01 063_MW01_20130206 20130206	063_MW02 063_MW02_20130206 20130206	063_MW03 063_MW03_20130206 20130206	063-MW04 063-MW04_20130208 20130208	063_MW05 063_MW05_20130206 20130206	063_MW06 063_MW06_20130206 20130206
METALS (UG/L)								
ANTIMONY	6	GWQS	21.9	1.9 U	1.9 U	2.2 J	1.9 U	4.2
CHROMIUM	70	GWQS	1460	17.9	18.8	3.9 UJ	3.9 U	938
NICKEL	100	GWQS	272	4.1 U	4.1 U	9.8 J	4.1 U	103
THALLIUM	2	GWQS	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U	0.79 U
VANADIUM	60	GWQS	1620	8.4	7.5	3.8 J	3.8 U	457
MISCELLANEOUS PARAMETERS (UG/L)								
HEXAVALENT CHROMIUM	NC	NA	270 J	6.2 J	19.7 J	3.2 UJ	18.7 J	24.9 J
MISCELLANEOUS PARAMETERS (S.U.)								
CORROSIVITY	NC	NA	11.2	6.93	7.43	7.74	7.16	10.5
PH	NC	NA	11.2	6.93	7.43	7.74	7.16	10.5
MISCELLANEOUS PARAMETERS (MV)								
OXIDATION REDUCTION POTENTIAL	NC	NA	66	191	243	437	111	-40

U = NON DETECT
J = ESTIMATED
NC = NO CRITERIA
NA = NOT APPLICABLE
GWQS = NJDEP GROUNDWATER QUALITY STANDARDS
DETECTION EXCEEDS GWQS

Table 17

Positive Hits Table for Groundwater Samples
Delineation Investigation

Sites 63 and 65 Remedial Investigation Report
PPG Industries, Inc.
Jersey City, New Jersey

LOCATION SAMPLE ID SAMPLE DATE	GROUNDWATER QUALITY STANDARD	063_MW07 063_MW07_20130206 20130206	063-MW08 063-MW08_20130208 20130208	063-MW11 063-MW11_20130208 20130208	063-MW10 063-MW10_20130208 20130208
METALS (UG/L)					
ANTIMONY	6	1.9 U	1.9 U	283	2.9
CHROMIUM	70	531	7.1 J	51400 J	98.6 J
NICKEL	100	7.1	4.4 J	155 J	36.7 J
THALLIUM	2	0.79 U	0.79 U	0.79 U	0.79 U
VANADIUM	60	57.7	3.8 UJ	850 J	61 J
MISCELLANEOUS PARAMETERS (UG/L)					
HEXAVALENT CHROMIUM	NC	10.4 J	7.4 J	64 UJ	3.2 UJ
MISCELLANEOUS PARAMETERS (S.U.)					
CORROSIVITY	NC	9.31	7.35	10.9	7.26
PH	NC	9.31	7.35	10.9	7.26
MISCELLANEOUS PARAMETERS (MV)					
OXIDATION REDUCTION POTENTIAL	NC	197	440	231	377

U = NON DETECT
J = ESTIMATED
NC = NO CRITERIA
NA = NOT APPLICABLE
GWQS = NJDEP GROUNDWATER QUALITY STANDARDS
DETECTION EXCEEDS GWQS

Table 18

Frequency of Detection Table for Groundwater Samples
Delineation Investigation

Sites 63 and 65 Remedial Investigation Report
PPG Industries, Inc.
Jersey City, New Jersey

Parameter	Frequency of Detection	Minimum Result	Minimum Qualifier	Maximum Result	Maximum Qualifier	Location of Max Detect	Sample of Max Detect	Minimum Nondetect	Maximum Nondetect	Average of Positive Results	Overall Average	Standard Deviation	GWQS	Number of Detections Greater Than GWQS
Inorganics (UG/L)														
ANTIMONY	5/10	2.2	J	283		063_MW11	063_MW11_20130208	1.9	1.9	62.84	31.90	88.46	6	2/0
CHROMIUM	8/10	7.1		51400	J	063_MW11	063_MW11_20130208	3.9	3.9	6808.93	5447.53	16153.80	70	5/0
NICKEL	7/10	4.4	J	272		063_MW01	063_MW01_20130206	4.1	4.1	84.00	59.42	91.19	100	3/0
THALLIUM	0/10							0.79	0.79		0.40	0.00	2	0/0
VANADIUM	8/10	3.8	J	1620		063_MW01	063_MW01_20130206	3.8	3.8	383.18	306.92	539.64	60	4/0
Miscellaneous Parameters (UG/L)														
HEXAVALENT CHROMIUM	7/10	6.2	J	270	J	063_MW01	063_MW01_20130206	3.2	64	51.04	39.25	81.71	NC	NA
Miscellaneous Parameters (MV)														
OXIDATION REDUCTION POTENTIAL	10/10	-40		440		063_MW08	063_MW08_20130208	NA	NA	225.30	225.30	158.14	NC	NA
Miscellaneous Parameters (S.U.)														
PH	10/10	6.93		11.2		063_MW01	063_MW01_20130206	NA	NA	8.58	8.58	1.72	NC	NA

GWQS = NJDEP GROUNDWATER QUALITY STANDARDS
U = NON-DETECT
J = ESTIMATED VALUE
NC = NO CRITERIA
NA = NOT APPLICABLE