Grant Street Yard
Former Manufactured Gas Plant
No Further Action Request

Phoenix, Arizona
ADEQ VRP Site Code 504477-00

Prepared for

Arizona Public Service Company

November 2018

CH2M HILL, Inc.
1501 W. Fountainhead Parkway
Suite 401
Tempe, AZ 85282

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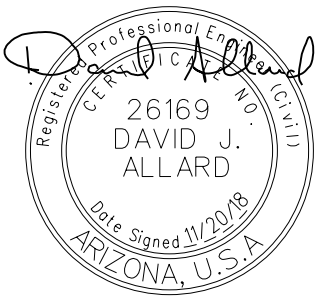

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Appendix

A Public Notice Information for NFA

Acronyms and Abbreviations

A.R.S.	Arizona Revised Statutes
ADEQ	Arizona Department of Environmental Quality
APS	Arizona Public Service Company
AST	aboveground storage tank
AZPDES	Arizona Pollutant Discharge Elimination System
CGP	Construction General Permit
CH2M	CH2M HILL Engineers, Inc.
COC	contaminant of concern
DU	decision unit
EPC	exposure point concentration
MGP	manufactured gas plant
NFA	no further action
NOI	Notice of Intent
PAH	polynuclear aromatic hydrocarbon
RAP	remedial action plan
Site	Former Grant Street Manufactured Gas Plant Site
SRL	soil remediation level
UCL	upper confidence limit
VOC	volatile organic compound
VRP	Voluntary Remediation Program

SECTION 1

Introduction

Arizona Public Service Company (APS) performed remedial action, excavation, and demolition activities with oversight from the Arizona Department of Environmental Quality (ADEQ) Voluntary Remediation Program (VRP) at the former APS Manufactured Gas Plant (MGP) located at 331 W. Grant Street, Phoenix, Arizona (the Site) from 2016 through 2017. The remedial action was implemented in accordance with the *Remedial Action Plan for the APS Grant Street Yard Former Manufactured Gas Plant, Phoenix, Arizona* (RAP; CH2M, 2017), as approved by the ADEQ VRP on April 13, 2017.

The objectives of this remedial action were to:

- Reduce the concentration of contaminants of concern (COCs) in soil to below regulatory risk-based levels (residential soil remediation levels [SRLs]) where feasible.
- Reduce the concentration of COCs in soil to below levels that could potentially impact groundwater above water quality standards.
- Restore the Site, to the extent necessary, to support proposed future uses.

Based on the data and information presented in this report and the *Remedial Action Closure Report for the APS Grant Street Yard Former Manufactured Gas Plant. Phoenix, Arizona* (Closure Report; CH2M, 2018), which was approved by ADEQ on October 12, 2018, APS requests a determination of No Further Action (NFA) determination from ADEQ for the Site, as described in Section 7.

SECTION 2

Site Background

The Site occupies approximately 2 acres at the southwest corner of Grant Street and Montezuma Street. The Site is bounded on the north by Grant Street, on the west by Fourth Avenue, on the south by Sherman Street, and on the east by Montezuma Street (**Figure 2-1**).

The Site served as a lampblack storage area from 1917 until the early 1920s. Lampblack was separated and dried at 501/505 South Second Avenue MGP (501/505 Property), and excess lampblack was transported to the Site by horse and wagon. In the early 1920s, a pipeline to carry lampblack-water slurry from the 501/505 Property to the Site was constructed. Settling ponds were constructed at the Site as slurry containment or drying areas. In 1923, a 15,000-barrel (approximately 50,000-gallon) aboveground storage tank (AST) was constructed in the southwest corner of the Site, and a pipeline was installed to transport oil to the 501/505 Property. The tank, pipelines, and settling ponds were used until MGP processes ceased at the 501/505 Property in early 1934 (Atlantic, 1990). Historical information indicated that a creosoting yard was located at the Site in the 1940s. Additional Site history information is provided in the RAP and Closure Report.

Site investigations and human health risk assessments were performed at the Site from 1993 through 2017 to evaluate the following:

- Presence of MGP-related and other industrial-related contaminants in the soil and groundwater.
- Vertical and lateral extent of these contaminants in the subsurface.
- Risks to human health to residents of the Site or neighbors.

SECTION 3

Remedial Activities at the Site

Remedial activities were conducted by CH2M HILL Engineers, Inc. (CH2M) in 2017 to remove contaminated soil above pre-determined clean-up levels from the Site. Activities conducted during remediation included the following:

- Permitting
- Site preparation activities
- Excavation of areas at the Site that had exhibited concentrations of COCs above residential SRLs or the potential to impact groundwater
- Waste management
- Air monitoring
- Dust and odor control
- Backfill and site restoration

Areas of the site that exhibited concentrations of COCs during previous investigations above the site cleanup criteria identified in the RAP (CH2M, 2017) were excavated. Depths of excavation ranged from 5 to 40 feet below ground surface, based on the results of former investigations of the site indicating the vertical and lateral extent of contamination. The extent of excavation at the Site is shown on **Figure 3-1**.

Remedial activities included an offsite area on Grant Street where an oil pipeline was identified during remedial activities. The pipeline and surrounding soil were excavated, resulting in an excavation area approximately 1,000 feet long, 2 feet wide, and 3 feet deep. The extent of the pipeline excavation is illustrated on **Figure 3-2**.

Excavated soil was disposed of offsite as special waste petroleum-contaminated soil in accordance with applicable requirements. Confirmation samples were collected from the bottom and perimeter sidewalls of the excavations, as described in Section 6.

Details for remedial activities are presented in Section 3 of the Closure Report (CH2M, 2018). ADEQ approved the Closure Report on October 12, 2018.

SECTION 4

Site Cleanup Criteria

Based on former Site operations, results of previous investigations, and the results of groundwater modeling, CH2M identified the final COCs at the Site as described in the RAP (CH2M, 2017). The MGP-related COCs, primarily polynuclear aromatic hydrocarbons (PAHs), can also be associated with creosote, which appears to have been stored at the Site, based on historical information.

The Site COCs for which site cleanup criteria were identified in the RAP included selected PAHs and volatile organic compounds (VOCs) as presented in **Table 4-1**. The minimum onsite cleanup criteria that met the remedial action objectives for the COCs were defined by residential SRLs.

SECTION 5

Confirmation Soil Sampling

During remedial excavation activities, confirmation samples were collected from the bottom and sidewalls of excavations to evaluate whether site cleanup criteria had been met.

5.1 331 W. Grant Street

The main area of the Site (331 W. Grant Street), was divided into nine decision units (DU-1 through DU-9) to assist with remedial decision-making, as described in Section 5.1.1 of the Closure Report and shown on **Figure 5-1**. **Figure 5-1** also shows ambient air monitoring locations during excavation and sampling activities. Representative sampling methods were used to collect samples from each DU and contaminant exposure point concentrations (EPCs) were calculated across each DU. The EPCs were compared with the applicable action levels (residential SRLs), as described in Section 5.1.1.4 of the Closure Report (CH2M, 2018).

Soil samples were analyzed for PAHs in all DUs and for VOCs in DU-4, based on data collected during previous investigations. Based on the analytical results and statistical analysis, the results were as follows:

- All sample results were below residential SRLs for PAHs in all DUs.
- The 95 percent upper confidence limit (UCL) for each individual PAH in all DUs was below the residential SRL.
- All sample results were below residential SRLs for applicable VOCs in DU-4.
- The 95 percent UCL for each applicable VOC was below the residential SRL in DU-4.

5.2 Grant Street Pipeline

A total of 28 samples, including duplicates, were collected from the pipeline excavation area. Soil samples were collected in native soils every 50 feet from the bottom of the trench along the entire length of the excavated area (beneath the location of the piping). Soil samples were also collected from native soils beneath elbows, joints, fittings, or areas of corrosion or breakage. Concentrations of COCs in all of the soil samples collected were below SRLs for PAHs and VOCs. Therefore, additional excavation was not required.

The confirmation soil sampling results are presented in **Tables 5-1 and 5-2**, and the statistical analysis results showing EPCs compared to residential SRLs are presented in **Table 5-3**. **Figures 5-2 and 5-3** show the sampling locations are 331 W. Grant Street and along the Grant Street Pipeline, respectively.

SECTION 6

Groundwater Monitoring

A groundwater monitoring well (GW1) was installed in November 2016 and sampled three times from November 2016 through June 2017. PAHs and VOCs were not detected in any of the samples from the well. Metals including arsenic, chromium, barium, and selenium were detected at concentrations below the Aquifer Water Quality Standards. In an email to APS on August 24, 2017, ADEQ agreed that additional groundwater monitoring was not required for the Site (Osuch, pers. comm., 2017). Appendix D of the Closure Report (CH2M, 2018) provides a summary of the groundwater sampling activities.

SECTION 7

No Further Action Components

Based on the information provided in the Closure Report (CH2M, 2018) and summarized in this report, APS has determined that the Site meets the requirements specified in Arizona Revised Statutes (A.R.S.) Section (§) 49-181 for a determination of No Further Action.

Specific Contaminants for Which an NFA Determination is Being Sought

APS is seeking an NFA for the COCs specified in the RAP (CH2M, 2017), associated with the MGP activities that occurred at the Site as follows:

- PAHs
  - Benzo(a)anthracene
  - Benzo(a)pyrene
  - Benzo(b)fluoranthene
  - Benzo(k)fluoranthene
  - Dibenz(a,h)anthracene
  - Indeno(1,2,3-cd)pyrene
  - Chrysene
  - Flouranthene
  - Pyrene
  - Naphthalene
- VOCs
  - 1,2,4-trimethylbenzene
  - Benzene
  - Toluene
  - Ethylbenzene
  - Total Xylenes

APS is seeking an NFA determination for the COCs listed above in both soil and groundwater.

Description of the Actions Taken to Achieve Remediation Levels or Controls Determined in Accordance with A.R.S. §49-175(B)

APS completed remedial excavation, demolition, and restoration activities as described in the ADEQ-approved RAP and summarized in the Closure Report. The remedial activities included excavation and disposal of impacted soil, confirmation testing of remaining soil, backfilling, and restoration of the Site. A total of 61,472 tons of material, which included 60,332 tons of special waste soil, 1,112 tons of construction debris (uncontaminated asphalt and concrete), 24 tons of tree debris, 3.98 tons of scrap metals (i.e., abandoned pipe), and 0.63 ton of ACM were removed from the Site and along Grant Street during the remedial action. . A detailed description of the remedial activities is included in Section 3 of this report and in Section 3 of the Closure Report (CH2M, 2018).

Impacted soil with concentrations exceeding the residential SRL was excavated as described in Section 5 of this report and documented in the Closure Report (CH2M, 2018). All remaining soil was tested and verified to contain concentrations of COCs below residential SRLs at the main area of the Site (331 W. Grant Street) in every confirmation sample collected. A total of 179 soil confirmation samples were collected and analyzed. Additionally, the EPC calculated for each COC in each DU was also below the residential SRLs for applicable COCs. Concentrations of COCs in all confirmation samples from soil beneath the oil pipeline under Grant Street were also below residential SRLs.

PAH and VOC compounds were not detected in groundwater or at concentrations exceeding the groundwater protection level at this site. Metals were detected in groundwater samples but at concentrations below the Aquifer Water Quality Standards. Therefore, there are no impacts to groundwater from previous Site operations.

Description of Any Treatment Systems

No treatment systems were installed at the Site.

Description of Industrial Controls

No institutional controls are being placed on the Site.

If Post-Remediation Monitoring is Proposed, a Description of the Type of Monitoring and Monitoring Locations

No additional monitoring will be performed at the Site.

Description of Community Involvement that Meets A.R.S. §49-176

APS's community involvement program for this project meets the requirements of A.R.S. §49-176. The following outreach activities were completed by APS:

- APS provided a 30-day comment period for the draft RAP, which began on March 10, 2017, and concluded on April 10, 2017.
- APS published a legal notice in *The Arizona Republic* general circulation edition on March 13, 2017, and distributed door hanger fliers at the beginning of the public comment period.
- APS made copies of the RAP available for public review online and at the ADEQ Records Center, 1110 W. Washington St., Phoenix.
- APS participated in a Grant Park Neighborhood Watch meeting on March 14, 2017. Approximately 15 residents attended to hear a presentation by Judy Heywood outlining the proposed remediation work and project timeline. Representatives from APS, ADEQ, CH2M HILL, and Santy participated in the meeting to respond to questions and collect comments.
- APS provided information about the pipeline removal work during the October 25, 2017 Grant Park Neighborhood Watch meeting. Judy Heywood presented information about the discovery process to locate the pipeline, the proposed approach for removing it, and a timeline for the work.
- Bilingual project update newsletters and door hanger fliers were distributed to homes and businesses within an approximately 1/4-mile radius around the site. Copies of these materials also were handed out during public meetings, provided at Community Leader Briefings, and distributed electronically to employees of APS.
- APS published newsletters in March, May, and August of 2017 to inform the community of the progress of the remediation activities. The newsletter was distributed to the community and interested parties. Copies of the newsletters are included in Appendix A.
- APS briefed relevant stakeholders from the City of Phoenix on an ongoing basis during execution of the remedial action.
- APS posted a sign at the entrance of the Site giving notice of the environmental cleanup, project description, start and end dates, and both the APS and ADEQ contacts for further information. The sign was posted for the duration of the project.

Additional public involvement activities required to obtain NFA, which include public notice of the request for NFA and a 30-day comment period, will be completed and documented to ADEQ. A draft

copy of the public notice and the fifth issue of the Grant Street Remediation Neighborhood Update are provided in **Appendix A**.

List of All Permits Obtained for the Remedial Action

Copies of all the permits obtained for the project are included in Appendix E of the Closure Report (CH2M, 2018). The following local, state, and federal permits, notifications, and approvals were secured by APS and Entact, the general contractor, before and during the implementation of the remedial action activities:

- City of Phoenix approval of Building Permit for Demolition of apartment building, March 10, 2016
- Maricopa County – National Emissions Standards for Hazardous Air Pollutants notification for the demolition of the apartment building, February 29, 2016
- ADEQ approval of the Quality Assurance Project Plan, June 6, 2016
- ADEQ approval of the RAP, April 13, 2017
- ADEQ approval of the Notice of Intent (NOI) submitted by APS for Stormwater Discharges Associated with Construction Activity under the Arizona Pollutant Discharge Elimination System (AZPDES) Construction General Permit (CGP), March 16, 2017
- ADEQ approval of NOI submitted by Entact for Stormwater Discharges Associated with Construction Activity under the AZPDES CGP, May 2, 2017
- ADEQ approval of NOI (to incorporate Grant Street piping) submitted by APS for Stormwater Discharges Associated with Construction Activity under the AZPDES CGP, November 2, 2017
- Notice of Termination for Entact AZPDES CGP Coverage for Stormwater, December 12, 2017
- Notice of Termination for APS AZPDES CGP Coverage for Stormwater, March 5, 2018
- City of Phoenix Temporary Fence Permit, February 4, 2015; extended on February 3, 2016
- City of Phoenix approval of Haul Plan/Permit, April 25, 2017
- City of Phoenix approval of Grading and Drainage Plans/Permit, April 27, 2017
- City of Phoenix of Stormwater Management Plan, April 27, 2017
- City of Phoenix approval of Landscape Combination Salvage/Inventory Plan, April 27, 2017
- City of Phoenix approval of Right of Way Management Closure Permit (TRACs permit), May 22, 2017
- City of Phoenix approval of Water Services Hydrant Meter Permit (backflow preventer for hydrant certified by the City on May 25, 2017)
- Maricopa County Dust Control Permit, October 11, 2017; renewal on October 12, 2017
- City of Phoenix Special Use Permit, March 30, 2017
- City of Phoenix Transportation Department permit for piping excavation activities, October 23, 2017

Additional NFA Requirements and Submittals

The following submittals are included in Appendix A of this request:

- Draft Public Notice
- Scaled site map with NFA boundary

Upon approval of this NFA report by ADEQ and after the 30-day public comment period is over, APS will submit the following to ADEQ:

- Affidavit of Publication
- Public Comment Notification Letter
- Signed Certification for No Further Action Determination Form
- Geographic Information System Boundaries

SECTION 8

References

Atlantic Environmental Services, Inc. (Atlantic). 1990. *Addendum to the Site Investigation Work Plan*.

CH2M HILL Engineers, Inc. (CH2M). 2017. *Remedial Action Plan for the APS Grant Street Yard Former Manufactured Gas Plant, Phoenix, Arizona.* ADEQ VRP Site Code 504477-00. March.

CH2M HILL Engineers, Inc. (CH2M). 2018. *Remedial Action Closure Report for the APS Grant Street Yard Former Manufactured Gas Plant. Phoenix, Arizona*. August.

Osuch, Nichole, Arizona Department of Environmental Quality. 2017. Personal communication (email) to Judy Heywood, APS, regarding additional groundwater monitoring. August 24.

Tables

TABLE 4-1

Applicable Site Cleanup Criteria for COCs

APS Grant Street Yard Former MGP Site, Phoenix, Arizona

Compound	Calculated GPL Value (mg/kg)	Residential SRL (mg/kg)			Non-Residential SRL (mg/kg)	Selected Soil Remediation Critera (mg/kg)
		Carcinogen				
		10E-6 Risk[1]	10E-5 Risk	Non-Carcinogen		
PAHs						
Benzo(a)anthracene	Groundwater is not threatened	0.69	6.9	NA[2]	21	**6.9**
Benzo(a)pyrene	Groundwater is not threatened	0.069	0.69	NA	2.1	**0.69**
Benzo(b)fluoranthene	Groundwater is not threatened	0.69	6.9	NA	21	**6.9**
Benzo(k)fluoranthene	Groundwater is not threatened	6.9	69	NA	210	**69**
Dibenz(a,h)anthracene	Groundwater is not threatened	0.069	0.69	NA	2.1	**0.69**
Indeno(1,2,3-c,d)pyrene	Groundwater is not threatened	0.69	6.9	NA	21	**6.9**
Chrysene	Groundwater is not threatened	68	680	NA	2,000	**680**
Fluoranthene	Groundwater is not threatened	NA	NA	2,300	22,000	**2,300**
Pyrene	Groundwater is not threatened	NA	NA	2,300	29,000	**2,300**
Naphthalene	Groundwater is not threatened	NA	NA	56	190	**56**
VOCs						
1,2,4-Trimethylbenzene	720	NA	NA	52	170	**52**
Benzene	12	0.65	NE	NA	1.4	**0.65**
Ethylbenzene	Groundwater is not threatened	NA	NA	400	400	**400**
Toluene	Groundwater is not threatened	NA	NA	650	650	**650**
Total Xylenes	Groundwater is not threatened	NA	NA	270	420	**270**
TPH						
Total Petroleum Hydrocarbons	Not modeled	NE[3]	NE	NE	NE	**NE**

Notes:

1. Since the current or currently intended future use of the contaminated site is not a childcare facility or school where children below the age of 18 are reasonably expected to be in frequent, repeated contact with the soil, APS has elected to remediate to a 1 x 10^{-5} excess lifetime cancer risk as stated in AAC R18-7-205.
2. NA = Not applicable (for example, compound has not been identified as a carcinogen
3. NE = Standard not established

GPL = groundwater protection level

mg/kg = milligram(s) per kilogram

PAH = polynuclear aromatic hydrocarbon

SRL = soil remediation level

TPH = total petroleum hydrocarbon

VOC = volatile organic compound

TABLE 5-1

Laboratory Analytical Results for Confirmation Samples--PAHs

APS Grant Street Yard Former MGP Site, Phoenix, Arizona

Location	Sample ID	Sample Depth (ft bgs)[1]	Sample Date	Units[2]	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene
Residential Soil Remediation Level[3,4]				**mg/kg**	**3700**	**NE**	**22000**	**6.9**	**0.69**	**6.9**	**NE**	**69**	**680**	**0.69**	**2300**	**2700**	**6.9**	**56**	**NE**	**2300**
Non-Residential Soil Remediation Level[5]				**mg/kg**	**29000**	**NE**	**240000**	**21**	**2.1**	**21**	**NE**	**210**	**2000**	**2.1**	**22000**	**26000**	**21**	**190**	**NE**	**29000**
Groundwater Protection Level[6]				**mg/kg**	**38500**	**NE**	**>1E06**	**>1E06**	**>1E06**	**>1E06**	**NE**	**>1E06**	**>1E06**	**>1E06**	**>1E06**	**578000**	**>1E06**	**>1E06**	**NE**	**>1E06**
DU1B	GS-DU1B-1a	10	02-Oct-17	mg/kg	0.000833 U	**0.00929 J**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.00105 J**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU1B	GS-FD02-100217	10	02-Oct-17	mg/kg	0.000833 U	0.000833 UJ	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU1B	GS-DU1B-2	10	22-Sep-17	mg/kg	**0.00177 J**	**0.0010 J**	**0.00172 J**	**0.00255 J**	**0.00372 J**	**0.00544 J**	**0.00543 J**	**0.00132 J**	**0.00406 J**	0.000833 UJ	**0.011 J**	**0.00173 J**	**0.0032 J**	**0.0016 J**	**0.00753 J**	**0.0119 J**
DU1B	GS-FD01-092217	10	22-Sep-17	mg/kg	**0.00422 J**	**0.0062 J**	**0.00459 J**	**0.00996 J**	**0.0183 J**	**0.0219 J**	**0.0311 J**	**0.0048 J**	**0.0129 J**	**0.00266 J**	**0.0398 J**	**0.00358 J**	**0.0171 J**	**0.00793 J**	**0.0292 J**	**0.0436 J**
DU1B	GS-DU1B-3	12	03-Oct-17	mg/kg	0.000833 U	**0.00265**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.00181**	0.000833 U	0.000833 U	0.000833 U	**0.0021**	0.000833 U	0.000833 U	0.000833 U	**0.00106 J**	**0.00204**
DU1B	GS-DU1B-4	10	22-Sep-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U
DU1B	GS-DU1B-5	10	05-Jun-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU1B	GS-DU1B-6	14	03-Oct-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.000982 J**	0.000833 U	**0.000977 J**	**0.00107 J**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU1B	GS-DU1B-7	12	22-Sep-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU1B	GS-DU1B-8	10	02-Oct-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU1S	GS-DU1S-1	7	06-Oct-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU1S	GS-DU1S-2	12	06-Oct-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU1S	GS-DU1S-3	5	01-Jun-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU1S	GS-DU1S-4	6	06-Oct-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU1S	GS-DU1S-5	5	02-Oct-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.00143 J**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU1S	GS-DU1S-6	9	02-Oct-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.00169 J**	0.000833 U	0.000833 U	**0.0018 J**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU1S	GS-FD01-100217	9	02-Oct-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 UJ	0.000833 U	0.000833 U	0.000833 UJ	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU1S	GS-DU1S-7	17	02-Oct-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU1S	GS-DU1S-8	5	05-Jun-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU1S	GS-DU1S-9	14	02-Oct-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	**0.00146 J**	0.000833 U	**0.00357 J**	0.000833 U	0.000833 U	**0.00189 J**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU1S	GS-FD03-100217	14	02-Oct-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 UJ	0.000833 U	0.000833 U	0.000833 UJ	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU2B	GS-DU2B-1a	5	12-Sep-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU2B	GS-DU2B-2	10	28-Jul-17	mg/kg	0.000833 U	**0.00104 J**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU2B	GS-DU2B-3	10	28-Jul-17	mg/kg	0.00417 U	**0.0417**	**0.0211**	**0.0551**	**0.144**	**0.129**	**0.204**	**0.0407**	**0.076**	**0.0154**	**0.148**	0.00417 U	**0.117**	**0.00861 J**	**0.0513**	**0.278**
DU2B	GS-DU2B-4	15	28-Jul-17	mg/kg	0.000833 U	**0.00143 J**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU2B	GS-DU2B-5	5	12-Sep-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU2B	GS-DU2B-6	10	28-Jul-17	mg/kg	0.000833 U	**0.0742**	**0.00341**	**0.00302**	**0.00372**	**0.0046**	**0.00828**	**0.00172**	**0.00485**	0.000833 U	**0.0167**	0.000833 U	**0.0028**	**0.00145 J**	**0.0048**	**0.0287**
DU2B	GS-DU2B-7	10	28-Jul-17	mg/kg	0.000833 U	**0.00647**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.00101 J**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.0014 J**
DU2B	GS-DU2B-8	15	28-Jul-17	mg/kg	0.000833 U	**0.00183**	**0.00109 J**	**0.00583 J**	**0.0133 J**	**0.0165 J**	**0.0242 J**	**0.00532 J**	**0.00949 J**	**0.00178 J**	**0.0137 J**	0.000833 U	**0.0134 J**	0.000833 U	**0.00301 J**	**0.0192 J**
DU2B	GS-FD01-072817	15	28-Jul-17	mg/kg	0.000833 U	**0.00142 J**	**0.00102 J**	**0.006**	**0.0121**	**0.0144**	**0.0194**	**0.00361 J**	**0.00726**	**0.00143 J**	**0.014**	0.000833 U	**0.0122**	0.000833 U	**0.00358**	**0.0189**
DU2S	GS-DU2S-1	3	12-Sep-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU2S	GS-DU2S-2	5	01-Jun-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	**0.000851 J**	0.000833 U	0.000833 U	0.000833 U	**0.00101 J**	**0.001140 J**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU2S	GS-DU2S-3	4.5	28-Jul-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU2S	GS-FD02-072817	4.5	28-Jul-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU2S	GS-DU2S-4	4.5	28-Jul-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U

See last page for notes.

TABLE 5-1

Laboratory Analytical Results for Confirmation Samples--PAHs

APS Grant Street Yard Former MGP Site, Phoenix, Arizona

Location	Sample ID	Sample Depth (ft bgs)[1]	Sample Date	Units[2]	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene
Residential Soil Remediation Level[3,4]				**mg/kg**	**3700**	**NE**	**22000**	**6.9**	**0.69**	**6.9**	**NE**	**69**	**680**	**0.69**	**2300**	**2700**	**6.9**	**56**	**NE**	**2300**
Non-Residential Soil Remediation Level[5]				**mg/kg**	**29000**	**NE**	**240000**	**21**	**2.1**	**21**	**NE**	**210**	**2000**	**2.1**	**22000**	**26000**	**21**	**190**	**NE**	**29000**
Groundwater Protection Level[6]				**mg/kg**	**38500**	**NE**	**>1E06**	**>1E06**	**>1E06**	**>1E06**	**NE**	**>1E06**	**>1E06**	**>1E06**	**>1E06**	**578000**	**>1E06**	**>1E06**	**NE**	**>1E06**
DU2S	GS-DU2S-5	12	28-Jul-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U
DU2S	GS-DU2S-6	12	28-Jul-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U
DU2S	GS-DU2S-7	5	01-Jun-17	mg/kg	**0.00363**	0.000834 U	**0.00418**	**0.0109**	**0.0149**	**0.019**	**0.0112**	**0.00812**	**0.0126**	**0.000997 J**	**0.0223**	**0.0025**	**0.00853**	**0.00444 J**	**0.0204**	**0.0201**
DU2S	GS-DU2S-8	5	05-Jun-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U
DU3B	GS-DU3B-1	9	13-Sep-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	**0.00108 J**	**0.00149 J**	**0.00213**	0.000834 U	0.000834 U	0.000834 U	**0.0013 J**	0.000834 U	**0.00147 J**	0.000834 U	0.000834 U	**0.00194**
DU3B	GS-DU3B-2	11	11-Sep-17	mg/kg	0.000833 U	**0.00706**	0.000833 U	**0.00141 J**	**0.00134 J**	**0.00172**	**0.00181**	0.000833 U	**0.00144 J**	0.000833 U	**0.00359**	0.000833 U	**0.00116 J**	0.000833 U	**0.00403**	**0.00508**
DU3B	GS-DU3B-3	11	11-Sep-17	mg/kg	0.000833 U	**0.00922**	**0.00297**	**0.0072**	**0.0089**	**0.00874**	**0.0107**	**0.00404**	**0.00929**	0.000833 U	**0.0207**	**0.00105 J**	**0.00608**	0.000833 U	**0.0188**	**0.0306**
DU3B	GS-DU3B-4	9	13-Sep-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U
DU3B	GS-DU3B-5	11	11-Sep-17	mg/kg	0.000833 U	**0.0148**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.00153 J**	0.000833 U	0.000833 U	**0.00548 J**	0.000833 U	**0.00225**
DU3B	GS-DU3B-6	11	11-Sep-17	mg/kg	0.000833 U	**0.0026**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU3B	GS-DU3B-7	21	11-Sep-17	mg/kg	0.000833 U	**0.0197**	**0.00597**	**0.00846**	**0.0256**	**0.0248**	**0.0351**	**0.00804**	**0.0123**	**0.00292**	**0.025**	**0.0024**	**0.0201**	0.000833 U	**0.0186**	**0.0424**
DU3B	GS-DU3B-8	27	11-Sep-17	mg/kg	**0.00104 J**	**0.00548**	**0.00481**	**0.00565**	**0.0074**	**0.00789**	**0.00744**	**0.00362**	**0.0071**	0.000833 U	**0.0175**	**0.00449**	**0.00461**	0.000833 U	**0.0327**	**0.0245**
DU3S	GS-DU3S-1	20	11-Sep-17	mg/kg	**0.00553**	**0.0792**	**0.0898**	**0.0958**	**0.138**	**0.117**	**0.126**	**0.0316**	**0.0917**	**0.0122**	**0.245**	**0.0378**	**0.0812**	**0.00174 J**	**0.445**	**0.414**
DU3S	GS-DU3S-2	17	11-Sep-17	mg/kg	0.000833 U	**0.0045**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.00133 J**	0.000833 U	0.000833 U
DU3S	GS-DU3S-3	17	11-Sep-17	mg/kg	0.000833 U	**0.0228**	**0.00134 J**	0.000833 U	**0.00124 J**	**0.00186**	**0.00298**	0.000833 U	0.000833 U	0.000833 U	**0.00369**	0.000833 U	**0.00129 J**	**0.00131 J**	**0.00219**	**0.00393**
DU3S	GS-DU3S-4	13	11-Sep-17	mg/kg	0.000833 U	**0.0107**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.00113 J**	0.000833 U	0.000833 U	**0.00184 J**	0.000833 U	**0.00107 J**
DU3S	GS-DU3S-5	20	11-Sep-17	mg/kg	0.000833 U	**0.013**	**0.00332**	**0.0132**	**0.0161**	**0.0216**	**0.0209**	**0.00637**	**0.0175**	**0.00214**	**0.0289**	0.000833 U	**0.0141**	0.000833 U	**0.00575**	**0.0627**
DU3S	GS-DU3S-6	20	11-Sep-17	mg/kg	**0.00407**	**0.0569**	**0.0437**	**0.0477**	**0.0904**	**0.0725**	**0.0878**	**0.022**	**0.0479**	**0.00801**	**0.125**	**0.0264**	**0.0545**	**0.00143 J**	**0.222**	**0.206**
DU3S	GS-DU3S-7	20	11-Sep-17	mg/kg	0.000833 U	**0.00422**	0.000833 U	**0.00129 J**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.00132 J**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU3S	GS-DU3S-8	13	11-Sep-17	mg/kg	0.000833 U	**0.014**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.00123 J**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.00166 J**
DU4B	GS-DU4B-1a	26	04-Aug-17	mg/kg	0.000833 U	**0.0257**	**0.00815**	**0.00435**	**0.0389**	**0.0304**	**0.0721**	**0.00788**	**0.00558**	**0.00492**	**0.00676**	0.000833 U	**0.0365**	0.000833 U	**0.00732**	**0.0158**
DU4B	GS-DU4B-1b	20	18-Sep-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU4B	GS-DU4B-2-SCR	41	08-Aug-17	mg/kg	**0.00138 J**	**0.0544 J**	**0.0144 J**	**0.00651 J**	**0.0519 J**	**0.0375 J**	**0.137 J**	**0.00666 J**	**0.00698 J**	**0.00948 J**	**0.0107 J**	**0.00441 J**	**0.0627 J**	0.000833 U	**0.0134 J**	**0.028 J**
DU4B	GS-FD01-080817-SCR	41	08-Aug-17	mg/kg	**0.00416 J**	**0.154 J**	**0.0363 J**	**0.0174 J**	**0.173 J**	**0.134 J**	**0.386 J**	**0.0268 J**	**0.026 J**	**0.0296 J**	**0.0236 J**	**0.0131 J**	**0.185 J**	**0.00283 J**	**0.0315 J**	**0.100 J**
DU4B	GS-DU4B-3	40	25-May-17	mg/kg	0.0040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 U	0.0040 U
DU4B	GS-DU4B-3a	36	16-Aug-17	mg/kg	**0.00885**	**0.0562 J**	**0.0278**	**0.0243**	**0.0878 J**	**0.0726**	**0.109 J**	**0.0147 J**	**0.0276**	**0.0113 J**	**0.0686**	**0.0101**	**0.0653 J**	**0.00247 J**	**0.0912**	**0.108**
DU4B	GS-DU4B-4	40	25-May-17	mg/kg	0.0039 U	0.0039 U	0.0039 U	0.0039 U	0.0039 U	0.0039 U	0.0039 U	0.0039 U	0.0039 U	0.0039 U	0.0039 U	0.0039 U	0.0039 U	0.0039 U	0.0039 U	0.0039 U
DU4B	GS-DU4B-4a	24	21-Aug-17	mg/kg	**0.0012 J**	**0.0114**	**0.0101**	**0.0125**	**0.0134**	**0.0142**	**0.0128**	**0.00389**	**0.0118**	**0.00221**	**0.0348**	**0.00576**	**0.00901**	**0.00168 J**	**0.0484**	**0.0588**
DU4B	GS-DU4B-5	20	21-Aug-17	mg/kg	**0.0015 J**	**0.124**	**0.0553**	**0.0112**	**0.115**	**0.0913**	**0.181**	**0.0184**	**0.013**	**0.019**	**0.0111**	**0.00853**	**0.106**	**0.00181 J**	**0.0189**	**0.0469**
DU4B	GS-DU4B-5a	20	18-Sep-17	mg/kg	0.000833 U	**0.00208**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.00158 J**	0.000833 U	0.000833 U	0.000833 U	**0.00197**	**0.00195**
DU5B	GS-DU5B-1	12	07-Sep-17	mg/kg	0.000832 U	0.000832 U	0.000832 U	**0.00126 J**	0.000832 U	**0.00116 J**	0.000832 U	0.000832 U	0.000832 U	0.000832 U	**0.0021**	0.000832 U	0.000832 U	0.000832 U	**0.00103 J**	**0.00172**
DU5B	GS-DU5B-2	10	14-Sep-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.00277 J**	0.000833 U	0.000833 U
DU5B	GS-DU5B-3	10	05-Jun-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U
DU5B	GS-DU5B-3a	10	29-Aug-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU5B	GS-DU5B-4	10	24-Aug-17	mg/kg	0.000833 U	**0.00392**	**0.00302**	**0.0146**	**0.0293**	**0.0418**	**0.0438**	**0.0109**	**0.0202**	**0.0045**	**0.0369**	0.000833 U	**0.0291**	0.000833 U	**0.00971**	**0.0463**

See last page for notes.

TABLE 5-1

Laboratory Analytical Results for Confirmation Samples--PAHs

APS Grant Street Yard Former MGP Site, Phoenix, Arizona

Location	Sample ID	Sample Depth (ft bgs)[1]	Sample Date	Units[2]	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene
Residential Soil Remediation Level[3,4]				**mg/kg**	**3700**	**NE**	**22000**	**6.9**	**0.69**	**6.9**	**NE**	**69**	**680**	**0.69**	**2300**	**2700**	**6.9**	**56**	**NE**	**2300**
Non-Residential Soil Remediation Level[5]				**mg/kg**	**29000**	**NE**	**240000**	**21**	**2.1**	**21**	**NE**	**210**	**2000**	**2.1**	**22000**	**26000**	**21**	**190**	**NE**	**29000**
Groundwater Protection Level[6]				**mg/kg**	**38500**	**NE**	**>1E06**	**>1E06**	**>1E06**	**>1E06**	**NE**	**>1E06**	**>1E06**	**>1E06**	**>1E06**	**578000**	**>1E06**	**>1E06**	**NE**	**>1E06**
DU5B	GS-DU5B-5	10	24-Aug-17	mg/kg	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U
DU5B	GS-DU5B-6	10	24-Aug-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU5B	GS-DU5B-7	11	24-Aug-17	mg/kg	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U
DU5B	GS-DU5B-8	10	24-Aug-17	mg/kg	0.000832 UJ	**0.00275 J**	**0.0022 J**	**0.0105 J**	**0.0141 J**	**0.0223 J**	**0.0229**	**0.00596 J**	**0.0137 J**	**0.00246 J**	**0.0331 J**	**0.00151 J**	**0.0147 J**	**0.00107 J**	**0.0195 J**	**0.0361 J**
DU5B	GS-FD01-082417	10	24-Aug-17	mg/kg	**0.00193 J**	**0.00496 J**	**0.00537 J**	**0.0213 J**	**0.0264 J**	**0.0418 J**	**0.0311**	**0.00941 J**	**0.0244 J**	**0.00485 J**	**0.0527 J**	**0.00295 J**	**0.0216 J**	**0.00121 J**	**0.0335 J**	**0.0566 J**
DU5S	GS-DU5S-1	4	07-Sep-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU5S	GS-DU5S-2	9	07-Sep-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	**0.00276**	**0.00179**	**0.00264**	0.000833 U	**0.00112 J**	**0.00242**	0.000833 U	**0.00418**	0.000833 U	0.000833 U	0.000833 U	**0.00132 J**	**0.00352**
DU5S	GS-DU5S-3	7	29-Aug-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U
DU5S	GS-DU5S-4	7	29-Aug-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU5S	GS-DU5S-5	14	29-Aug-17	mg/kg	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U
DU5S	GS-FD01-082917	14	29-Aug-17	mg/kg	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U
DU5S	GS-DU5S-6	14	29-Aug-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU5S	GS-DU5S-7	7.5	29-Aug-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU5S	GS-DU5S-8	5	05-Jun-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	**0.00102 J**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.00096 J**	0.000833 U	**0.00102 J**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.00086 J**
DU6B	GS-DU6B-1	5	20-Sep-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.00199**	0.000833 U	0.000833 U	0.000833 U	**0.00107 J**	**0.00191**
DU6B	GS-DU6B-2	5	07-Jul-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.000938 J**	**0.00166 J**	0.000833 U	0.000833 U	0.000833 U	**0.000908 J**	0.000833 U	**0.000997 J**	0.000833 U	0.000833 U	**0.00135 J**
DU6B	GS-DU6B-3	5	20-Sep-17	mg/kg	**0.0095**	0.000833 U	**0.0108**	**0.0232**	**0.020**	**0.031**	**0.0129**	**0.00889**	**0.0219**	**0.00235**	**0.0605**	**0.00571**	**0.011**	**0.00466 J**	**0.0563**	**0.0591**
DU6B	GS-DU6B-4	5	07-Jul-17	mg/kg	0.000834 UJ	0.000834 UJ	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 UJ	0.000834 U	0.000834 U	0.000834 U	0.000834 U
DU6B	GS-DU6B-5	5	16-Aug-17	mg/kg	**0.0199**	**0.163**	**0.108**	**0.114**	**0.219**	**0.228**	**0.278**	**0.058**	**0.13**	**0.0378**	**0.306**	**0.0557**	**0.181**	0.00832 U	**0.405**	**0.483**
DU6B	GS-DU6B-6	5	06-Jul-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.00122 J**	**0.00211**	0.000833 U	0.000833 U	0.000833 U	**0.000846 J**	0.000833 U	**0.00121**	0.000833	0.000833	**0.00118 J**
DU6B	GS-DU6B-7	5	16-Aug-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU6B	GS-DU6B-8	5	06-Jul-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU7B	GS-DU7B-1	5	01-Aug-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU7B	GS-DU7B-1	5	01-Aug-17	mg/kg	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U
DU7B	GS-DU7B-2	5	02-Aug-17	mg/kg	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U
DU7B	GS-DU7B-3	5	01-Aug-17	mg/kg	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U
DU7B	GS-DU7B-4	5	04-Jul-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU7B	GS-DU7B-5	5	18-Jul-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU7B	GS-DU7B-6	5	01-Aug-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U
DU7B	GS-DU7B-7	5	11-Jul-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U
DU7B	GS-DU7B-8	5	06-Jul-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.000918 J**	**0.00124 J**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.00105 J**
DU7B	GS-FD01-070617	5	06-Jul-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U
DU7S	GS-DU7S-1	4	01-Aug-17	mg/kg	0.00083 U	0.00083 U	0.00083 U	**0.00174**	**0.00505**	**0.00554**	**0.011**	**0.00178**	**0.00237**	0.00083 U	**0.00415**	0.00083 U	**0.00617**	0.00083 U	0.00083 U	**0.0073**
DU7S	GS-DU7S-2	4	01-Aug-17	mg/kg	0.00083 U	0.00083 U	0.00083 U	0.00083 U	0.00083 U	0.00083 U	**0.00171**	0.00083 U	0.00083 U	0.00083 U	0.00083 U	0.00083 U	**0.00104 J**	0.00083 U	0.00083 U	**0.00132 J**
DU7S	GS-DU7S-3	7	01-Aug-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U

See last page for notes.

TABLE 5-1

Laboratory Analytical Results for Confirmation Samples--PAHs

APS Grant Street Yard Former MGP Site, Phoenix, Arizona

Location	Sample ID	Sample Depth (ft bgs)[1]	Sample Date	Units[2]	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene
Residential Soil Remediation Level[3,4]				**mg/kg**	**3700**	**NE**	**22000**	**6.9**	**0.69**	**6.9**	**NE**	**69**	**680**	**0.69**	**2300**	**2700**	**6.9**	**56**	**NE**	**2300**
Non-Residential Soil Remediation Level[5]				**mg/kg**	**29000**	**NE**	**240000**	**21**	**2.1**	**21**	**NE**	**210**	**2000**	**2.1**	**22000**	**26000**	**21**	**190**	**NE**	**29000**
Groundwater Protection Level[6]				**mg/kg**	**38500**	**NE**	**>1E06**	**>1E06**	**>1E06**	**>1E06**	**NE**	**>1E06**	**>1E06**	**>1E06**	**>1E06**	**578000**	**>1E06**	**>1E06**	**NE**	**>1E06**
DU7S	GS-DU7S-4	7	01-Aug-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U
DU7S	GS-DU7S-5	7	01-Aug-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU7S	GS-DU7S-6	7	01-Aug-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U
DU7S	GS-DU7S-7	7	01-Aug-17	mg/kg	0.00834 U	0.00834 U	0.00834 U	0.00834 U	0.00834 U	0.00834 U	**0.126**	0.00834 U	0.00834 U	0.00834 U	0.00834 U	0.00834 U	0.00834 U	0.00834 U	0.00834 U	0.00834 U
DU7S	GS-DU7S-8	7	01-Aug-17	mg/kg	0.000832 U	0.000832 U	0.000832 U	**0.0013 J**	**0.0014 J**	**0.00196**	**0.00196**	0.000832 U	**0.00107 J**	0.000832 U	**0.0019**	0.000832 U	**0.00135 J**	0.000832 U	0.000832 U	**0.00224**
DU8B	GS-DU8B-3	5	28-Jun-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U
DU8B	GS-DU8B-4	5	28-Jun-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU8B	GS-FD01-062817	5	28-Jun-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU8B	GS-DU8B-1a	5	26-Jul-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	**0.00174**	**0.0017**	**0.00206**	**0.00214**	0.000834 U	**0.00129 J**	0.000834 U	**0.00271**	0.000834 U	**0.00144 J**	0.000834 U	**0.00175**	**0.00276**
DU8B	GS-DU8B-2	5	26-Jul-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU8B	GS-DU8B-3a	5	26-Jul-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U
DU8B	GS-DU8B-5a	5	26-Jul-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU8B	GS-DU8B-6	5	26-Jul-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.0011 J**
DU8B	GS-DU8B-7a	5	26-Jul-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU8B	GS-DU8B-8	5	28-Jun-17	mg/kg	0.000832 U	0.000832 U	0.000832 U	**0.00115 J**	**0.002**	**0.00271**	**0.00367**	0.000832 U	0.000832 U	0.000832 U	**0.00166 J**	0.000832 U	**0.00217**	0.000832 U	0.000832 U	**0.00242**
DU8S	GS-DU8S-1	3	26-Jul-17	mg/kg	0.0083 U	0.0083 U	**0.0271**	**0.185**	**0.169**	**0.255**	**0.142**	**0.0759**	**0.182**	**0.0209**	**0.392**	0.0083 U	**0.105**	0.0083 U	**0.175**	**0.347**
DU8S	GS-DU8S-2	5	02-Jun-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	**0.00251**	**0.00123 J**	**0.00242**	**0.00129 J**	**0.00125 J**	**0.00288**	0.000833 U	**0.00391**	0.000833 U	**0.000934 J**	0.000833 U	**0.00185**	**0.00332**
DU8S	GS-DU8S-3	4	26-Jul-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	**0.00133 J**	**0.00129 J**	**0.00183 J**	**0.00257 J**	0.000833 U	**0.00091 J**	0.000833 U	**0.00153 J**	0.000833 U	**0.0015 J**	0.000833 U	0.000833 U	**0.00181 J**
DU8S	GS-FD01-072617	4	26-Jul-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	**0.00213 J**	**0.00325 J**	**0.0045 J**	**0.00519 J**	**0.00134 J**	**0.00226 J**	0.000833 U	**0.00375 J**	0.000833 U	**0.00315 J**	0.000833 U	**0.00138 J**	**0.00477 J**
DU8S	GS-DU8S-4	2	26-Jul-17	mg/kg	0.00833 U	**0.0314**	**0.0149**	**0.157**	**0.553**	**0.556**	**0.822**	**0.0984**	**0.234**	**0.0481**	**0.485**	0.00833 U	**0.548**	0.00833 U	**0.141**	**0.712**
DU8S	GS-DU8S-5	5	02-Jun-17	mg/kg	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U
DU8S	GS-DU8S-6	2	12-Jul-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU8S	GS-DU8S-7	4	12-Jul-17	mg/kg	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U	0.000832 U
DU8S	GS-DU8S-8	2	26-Jul-17	mg/kg	0.000833 U	**0.00119 J**	0.000833 U	**0.00525**	**0.0142**	**0.0143**	**0.0225**	**0.00405**	**0.00626**	**0.0015 J**	**0.0142**	0.000833 U	**0.0135**	0.000833 U	**0.00293**	**0.0212**
DU8S	GS-DU8S-9	5	05-Jun-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU9B	GS-DU9B-1	15	25-Jul-17	mg/kg	0.000833 U	**0.00883**	**0.00144 J**	**0.00559**	**0.0115**	**0.0134**	**0.0184 J**	**0.00351**	**0.00569**	**0.00149 J**	**0.0111 J**	0.000833 U	**0.0114**	**0.00139 J**	**0.00277 J**	**0.0146 J**
DU9B	GS-FD01-072517	15	25-Jul-17	mg/kg	0.000834 U	**0.0115**	**0.00187**	**0.00608**	**0.0147**	**0.0171**	**0.0268 J**	**0.0038**	**0.00748**	**0.00176**	**0.0178 J**	0.000834 U	**0.0159**	0.000834 U	**0.00563 J**	**0.0264 J**
DU9B	GS-DU9B-2	15	25-Jul-17	mg/kg	**0.00808**	**0.0651**	**0.0353**	**0.0487**	**0.074**	**0.0698**	**0.082**	**0.0137**	**0.0428**	**0.00675**	**0.126**	**0.0337**	**0.0505**	**0.0394**	**0.194**	**0.185**
DU9B	GS-DU9B-3	5	20-Jun-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 UJ	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU9B	GS-DU9B-4a	5	20-Jun-17	mg/kg	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U
DU9B	GS-DU9B-5	5	19-Jun-17	mg/kg	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U
DU9B	GS-DU9B-6	5	19-Jun-17	mg/kg	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	**0.000684 J**	0.000417 U	0.000417 U	**0.0005 J**	0.000417 U	**0.000924**	0.000417 U	0.000417 U	0.000417 U	**0.000911**	**0.000567 J**
DU9B	GS-FD02-061917	5	19-Jun-17	mg/kg	0.000416 U	0.000416 U	0.000416 U	**0.000509 J**	0.000416 U	**0.000566 J**	**0.000711 J**	**0.000731 J**	**0.000713 J**	**0.000682 J**	0.000416 U	0.000416 U	**0.00066 J**	0.000416 U	0.000416 U	0.000416 U
DU9B	GS-DU9B-7a	5	19-Jun-17	mg/kg	0.000417 U	0.000417 U	0.000417 U	0.000417 U	**0.000478 J**	**0.000814 J**	**0.00152**	0.000417 U	0.000417 U	0.000417 U	**0.000945**	0.000417 U	**0.000865**	0.000417 U	0.000417 U	**0.00111**
DU9B	GS-FD01-061917	5	19-Jun-17	mg/kg	0.000417 U	0.000417 U	0.000417 U	0.000417 U	0.000417 U	**0.00066 J**	**0.00123**	0.000417 U	0.000417 U	0.000417 U	**0.000701 J**	0.000417 U	**0.000693 J**	0.000417 U	0.000417 U	**0.000873**

See last page for notes.

TABLE 5-1

Laboratory Analytical Results for Confirmation Samples--PAHs

APS Grant Street Yard Former MGP Site, Phoenix, Arizona

Location	Sample ID	Sample Depth (ft bgs)[1]	Sample Date	Units[2]	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene
Residential Soil Remediation Level[3,4]				**mg/kg**	**3700**	**NE**	**22000**	**6.9**	**0.69**	**6.9**	**NE**	**69**	**680**	**0.69**	**2300**	**2700**	**6.9**	**56**	**NE**	**2300**
Non-Residential Soil Remediation Level[5]				**mg/kg**	**29000**	**NE**	**240000**	**21**	**2.1**	**21**	**NE**	**210**	**2000**	**2.1**	**22000**	**26000**	**21**	**190**	**NE**	**29000**
Groundwater Protection Level[6]				**mg/kg**	**38500**	**NE**	**>1E06**	**>1E06**	**>1E06**	**>1E06**	**NE**	**>1E06**	**>1E06**	**>1E06**	**>1E06**	**578000**	**>1E06**	**>1E06**	**NE**	**>1E06**
DU9B	GS-DU9B-8a	5	17-Jul-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	**0.00243**	**0.00552**	**0.00691**	**0.010**	**0.00177**	**0.00285**	0.000833 U	**0.00578**	0.000833 U	**0.00633**	0.000833 U	**0.0017**	**0.00827**
DU9S	GS-DU9S-1	10	25-Jul-17	mg/kg	0.000834 U	**0.000932 J**	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U
DU9S	GS-FD02-072517	10	25-Jul-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU9S	GS-DU9S-2	10	25-Jul-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	**0.00219**	**0.001 J**	0.000834 U	**0.00114 J**	**0.00213**	**0.00213**	**0.00284**	0.000834 U	0.000834 U	**0.00151 J**	0.000834 U	0.000834 U	0.000834 U
DU9S	GS-DU9S-3	5	30-May-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	**0.000976 J**	0.000833 U	**0.00167**	0.000833 U	**0.00236**	0.000833 U	**0.000948 J**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.00175**	0.000833 U
DU9S	GS-DU9S-4	4	17-Jul-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
DU9S	GS-FD01-071717	4	17-Jul-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U
DU9S	GS-DU9S-5	4	17-Jul-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U
DU9S	GS-DU9S-6	5	31-May-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	**0.00168**	0.000834 U
DU9S	GS-DU9S-7	4	11-Jul-17	mg/kg	**0.00105 J**	**0.00802**	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	**0.00117 J**	**0.00264**	0.000834 U	**0.117**	**0.00533**	**0.00122 J**
DU9S	GS-DU9S-8	5	02-Jun-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
PLB	GS-PLB01	3	02-Nov-17	mg/kg	0.00833 U	0.00833 U	0.00833 U	**0.0466**	**0.0575**	**0.0861**	**0.0806**	**0.0416**	**0.0637**	0.00833 U	**0.0787**	0.00833 U	**0.054**	0.00833 U	**0.0132 J**	**0.0937**
PLB	GS-PLB02	3	02-Nov-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
PLB	GS-PLB03	3	03-Nov-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U
PLB	GS-PLB04	3	06-Nov-17	mg/kg	0.000835 U	0.000835 U	0.000835 U	0.000835 U	0.000835 U	0.000835 U	0.000835 U	0.000835 U	0.000835 U	0.000835 U	0.000835 U	0.000835 U	0.000835 U	0.000835 U	0.000835 U	0.000835 U
PLB	GS-FD01-110617	3	06-Nov-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
PLB	GS-PLB05	3	07-Nov-17	mg/kg	**0.00292**	**0.0139**	**0.0101**	**0.161**	**0.215**	**0.307**	**0.301**	**0.124**	**0.174**	**0.0269**	**0.24**	**0.00115 J**	**0.202**	**0.00741 J**	**0.029**	**0.266**
PLB	GS-PLB06	3	07-Nov-17	mg/kg	**0.00197**	**0.00897**	**0.00479**	**0.0654**	**0.146**	**0.166**	**0.237**	**0.0728 J**	**0.081 J**	**0.0158**	**0.116**	0.000833 U	**0.148**	**0.00324 J**	**0.014**	**0.15**
PLB	GS-PLB07	3	08-Nov-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	**0.00115 J**	**0.0018**	**0.00243**	**0.00384**	**0.00156 J**	**0.0014 J**	0.000833 U	**0.00221**	0.000833 U	**0.00226**	0.000833 U	0.000833 U	**0.00324**
PLB	GS-PLB08	3	09-Nov-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
PLB	GS-PLB09	3	09-Nov-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	**0.00295**	**0.00487**	**0.00723**	**0.00899**	**0.00274**	**0.00323**	0.000834 U	**0.00479**	0.000834 U	**0.00597**	0.000834 U	0.000834 U	**0.00629**
PLB	GS-PLB10	3	14-Nov-17	mg/kg	0.000833 U	**0.0142**	**0.00778**	**0.0973**	**0.204**	**0.245**	**0.328**	**0.0748**	**0.122**	**0.0316**	**0.203**	0.000833 U	**0.227**	**0.00162 J**	**0.0226**	**0.249**
PLB	GS-PLB11	3	15-Nov-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 UJ	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
PLB	GS-FD02-111517	3	15-Nov-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	**0.00142 J**	**0.00107 J**	**0.00169 J**	**0.00103 J**	0.000833 U	**0.00101 J**	0.000833 U	**0.00243 J**	0.000833 U	0.000833 U	0.000833 U	**0.00121 J**	**0.0016 J**
PLB	GS-PLB12	3	16-Nov-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
PLB	GS-PLB13	3	17-Nov-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	**0.004**	**0.00666**	**0.00937**	**0.00592**	**0.00289**	**0.00366**	**0.00418**	**0.00518**	0.000833 U	**0.00588**	0.000833 U	**0.00108 J**	**0.00391**
PLB	GS-PLB14	3	17-Nov-17	mg/kg	0.000833 U	0.000833 U	**0.00184**	**0.00694**	**0.00744**	**0.0102**	**0.00571**	**0.00265**	**0.00533**	**0.00437**	**0.0115**	0.000833 U	**0.00585**	0.000833 U	**0.00508**	**0.00771**
PLB	GS-PLB15	3	20-Nov-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
PLB	GS-PLB16	3	27-Nov-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	**0.00193 J**	0.000834 U	0.000834 U
PLB	GS-PLB17	3	28-Nov-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.00337 J**	0.000833 U	0.000833 U
PLB	GS-PLB18	3	30-Nov-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
PLB	GS-PLB19	3	30-Nov-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
PLB	GS-PLB20	3	01-Dec-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.00112 J**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
PLB	GS-PLB21	3	04-Dec-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
PLB	GS-FD03-120417	3	04-Dec-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U

See last page for notes.

TABLE 5-1

Laboratory Analytical Results for Confirmation Samples--PAHs

APS Grant Street Yard Former MGP Site, Phoenix, Arizona

Location	Sample ID	Sample Depth (ft bgs)[1]	Sample Date	Units[2]	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)pyrene	Naphthalene	Phenanthrene	Pyrene
Residential Soil Remediation Level[3,4]				**mg/kg**	**3700**	**NE**	**22000**	**6.9**	**0.69**	**6.9**	**NE**	**69**	**680**	**0.69**	**2300**	**2700**	**6.9**	**56**	**NE**	**2300**
Non-Residential Soil Remediation Level[5]				**mg/kg**	**29000**	**NE**	**240000**	**21**	**2.1**	**21**	**NE**	**210**	**2000**	**2.1**	**22000**	**26000**	**21**	**190**	**NE**	**29000**
Groundwater Protection Level[6]				**mg/kg**	**38500**	**NE**	**>1E06**	**>1E06**	**>1E06**	**>1E06**	**NE**	**>1E06**	**>1E06**	**>1E06**	**>1E06**	**578000**	**>1E06**	**>1E06**	**NE**	**>1E06**
PLB	GS-PLB22	3	04-Dec-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.000964 J**	**0.00141 J**	**0.00133 J**	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	**0.000938 J**	0.000833 U	0.000833 U	0.000833 U
PLB	GS-PLB23	3	05-Dec-17	mg/kg	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	**0.00101 J**	**0.000974 J**	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	0.000834 U	**0.000872 J**
PLB	GS-PLB24	3	05-Dec-17	mg/kg	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U	0.000833 U
PLB	GS-PLB25	3	05-Dec-17	mg/kg	**0.0302**	**0.00529**	**0.0772**	**0.281**	**0.26**	**0.315**	**0.165**	**0.13**	**0.375**	**0.0462**	**0.596**	**0.0128**	**0.145**	**0.00452 J**	**0.383**	**0.693**

Notes:

1. ft bgs = feet below ground surface
2. mg/kg = milligram(s) per kilogram
3. Residential Soil Remediation Levels (SRLs) are values based on a 1 x 10^{-5} excess lifetime cancer risk for any carcinogen other than a known human carcinogen.
4. Cells highlighted in yellow indicate that the compound exceeded the 2007 residential SRL.
5. Cells highlighted in red indicate the compound exceeded the 2007 non-residential SRL.
6. See Table 4-4 in the RAP for calculated Groundwater Protection Levels (GPLs). Calculated GPLs with a value above 1,000,000 were presented as >1E06.
7. NE = Not Established
8. U = Analyte was not detected at the specified detection limit.
   UJ = Analyte was not detected, and the specified detection limit might not be accurate or precise.
   J = Analyte is present but the reported value might not be accurate or precise (estimate).
   -- = Analyte not analyzed for this compound
9. Detected results are bolded.
10. Polynuclear aromatic hydrocarbon (PAH) compounds were analyzed using 8270SIM.

See last page for notes.

TABLE 5-2

Laboratory Analytical Results for Confirmation Samples--VOCs Only

APS Former Grant Street Yard MGP Site, Phoenix, Arizona

Location	Sample ID	Sample Depth (ft bgs)[1]	Sample Date	Units[2]	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dichloroethane	1,2-Dichlorobenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane
Residential Soil Remediation Level[3,4]				**mg/kg**	**3.2**	**1200**	**0.42**	**0.74**	**510**	**120**	**NE**	**NE**	**0.005**	**62**	**52**	**0.28**	**600**	**0.53**	**0.029**	**0.34**	**21**	**530**	**100**
Non-Residential Soil Remediation Level[5]				**mg/kg**	**73**	**1200**	**9.3**	**16**	**1700**	**410**	**NE[7]**	**NE**	**0.11**	**220**	**170**	**6**	**600**	**6.5**	**0.63**	**7.4**	**70**	**600**	**360**
Groundwater Protection Level[6]				**mg/kg**	**NE**	**1.0**	**NE**	**NE**	**NE**	**0.81**	**NE**	**NE**	**NE**	**NE**	**720**	**0.21**	**72**	**0.015**	**NE**	**0.28**	**NE**	**NE**	**NE**
DU4B	GS-DU4B-1a	26	8/4/2017	mg/kg	0.00534 U	0.0178 U	0.00712 U	0.00445 U	0.00623 U	0.00712 U	0.00623 U	0.0267 U	0.0267 U	0.0178 U	0.00801 U	0.00267 U	0.00712 U	0.0267 U	0.0178 U	0.00623 U	0.0178 U	0.00801 U	0.00445 U
DU4B	GS-DU4B-1b	20	9/18/2017	mg/kg	0.00688 U	0.0229 U	0.00917 U	0.00573 U	0.00803 U	0.00917 U	0.00803 U	0.0344 U	0.0344 U	0.0229 U	0.0103 U	0.0344 U	0.00917 U	0.0344 U	0.0229 U	0.00803 U	0.0229 U	0.0103 U	0.00573 U
DU4B	GS-DU4B-2-SCR	41	8/8/2017	mg/kg	0.00524 U	0.0175 U	0.00699 U	0.00437 U	0.00612 U	0.00699 U	0.00612 U	0.0262 U	0.0262 U	0.0175 U	0.00787 U	0.00262 U	0.00699 U	0.00262 U	0.0175 U	0.00612 U	0.0175 U	0.00801 U	0.00437 U
DU4B	GS-FD01-080817-SCR	41	8/8/2017	mg/kg	0.00554 U	0.0185 U	0.00738 U	0.00461 U	0.00646 U	0.00738 U	0.00646 U	0.0277 U	0.0277 U	0.0185 U	0.0083 U	0.0277 U	0.00738 U	0.0277 U	0.0185 U	0.00646 U	0.0185 U	0.00787 U	0.00461 U
DU4B	GS-DU4B-3	40	5/25/2017	mg/kg	0.27 U	0.11 U	0.11 U	0.11 U	0.11 U	0.27 U	0.11 U	0.27 U	0.11 U	0.27 U	0.10 U	0.11 U	0.11 U	0.27 U	0.027 U	0.11 U	0.11 U	0.11 U	0.11 U
DU4B	GS-DU4B-3a	36	8/16/2017	mg/kg	0.00464 U	0.0155 U	0.00618 U	0.00386 U	0.00541 U	0.00618 U	0.00541 U	0.0232 U	0.0232 U	0.0155 U	0.00696 U	0.0232 U	0.00618 U	0.0232 U	0.0155 U	0.00541 U	0.0155 U	0.00696 U	0.00386 U
DU4B	GS-DU4B-4	40	5/25/2017	mg/kg	0.25 U	0.10 U	0.10 U	0.10 U	0.10 U	0.25 U	0.10 U	0.25 U	0.10 U	0.25 U	0.10 U	0.10 U	0.10 U	0.25 U	0.025 U	0.10 U	0.10 U	0.10 U	0.10 U
DU4B	GS-DU4B-4a	24	8/21/2017	mg/kg	0.00528 U	0.0176 U	0.00704 U	0.0044 U	0.00616 U	0.00704 U	0.00616 U	0.0264 U	0.0264 U	0.0176 U	0.00792 U	0.0264 U	0.00704 U	0.0264 U	0.0176 U	0.00616 U	0.0176 U	0.00792 U	0.0044 U
DU4B	GS-DU4B-5	20	8/21/2017	mg/kg	0.00547 U	0.0182 U	0.0073 U	0.00456 U	0.00639 U	0.0073 U	0.00639 U	0.0274 U	0.0274 U	0.0182 U	0.00821 U	0.0274 U	0.0073 U	0.0274 U	0.0182 U	0.00639 U	0.0182 U	0.00821 U	0.00456 U
DU4B	GS-DU4B-5a	20	9/18/2017	mg/kg	0.00625 U	0.0208 U	0.00833 U	0.00521 U	0.00729 U	0.00833 U	0.00729 U	0.0313 U	0.0313 U	0.0208 U	0.00938 U	0.0313 U	0.00833 U	0.0313 U	0.0208 U	0.00729 U	0.0208 U	0.00938 U	0.00521 U
PLB	GS-PLB01	3	11/2/2017	mg/kg	0.00525 U	0.0175 U	0.00701 U	0.00438 U	0.00613 U	0.00701 U	0.00613 U	0.0263 U	0.0263 U	0.0175 U	0.00788 U	0.0263 U	0.00701 U	0.0263 U	0.0175 U	0.00613 U	0.0175 U	0.00788 U	0.00438 U
PLB	GS-PLB02	3	11/2/2017	mg/kg	0.005 U	0.0167 U	0.00667 U	0.00417 U	0.00583 U	0.00667 U	0.00583 U	0.025 U	0.025 U	0.0167 U	**0.0229 J**	0.025 U	0.00667 U	0.025 U	0.0167 U	0.00583 U	0.0167 U	0.0075 U	0.00417 U
PLB	GS-PLB03	3	11/3/2017	mg/kg	0.006 U	0.02 U	0.008 U	0.005 U	0.007 U	0.008 U	0.007 U	0.03 U	0.03 U	0.02 U	0.009 U	0.03 U	0.008 U	0.03 U	0.02 U	0.007 U	0.02 U	0.009 U	0.005 U
PLB	GS-PLB04	3	11/6/2017	mg/kg	0.00493 U	0.0162 U	0.00648 U	0.00405 U	0.00567 U	0.00648 U	0.00567 U	0.0243 U	0.0243 U	0.0162 U	0.00739 U	0.0243 U	0.00648 U	0.0243 U	0.0162 U	0.00567 U	0.0162 U	0.00739 U	0.00405 U
PLB	GS-FD01-110617	3	11/6/2017	mg/kg	0.00486 U	0.0164 U	0.00657 U	0.00411 U	0.00575 U	0.00657 U	0.00575 U	0.0246 U	0.0246 U	0.0164 U	0.00729 U	0.0246 U	0.00657 U	0.0246 U	0.0164 U	0.00575 U	0.0164 U	0.00729 U	0.00411 U
PLB	GS-PLB05	3	11/7/2017	mg/kg	0.00622 U	0.0207 U	0.0083 U	0.00519 U	0.00726 U	0.0083 U	0.00726 U	0.0311 U	0.0311 U	0.0207 U	0.00934 U	0.0031 U	0.0083 U	0.0311 U	0.0207 U	0.00726 U	0.0207 U	0.00934 U	0.00519 U
PLB	GS-PLB06	3	11/7/2017	mg/kg	0.00569 U	0.019 U	0.00759 U	0.00474 U	0.00664 U	0.00759 U	0.00664 U	0.0285 U	0.0285 U	0.019 U	0.00854 U	0.0029 U	0.00759 U	0.0285 U	0.019 U	0.00664 U	0.019 U	0.00854 U	0.00474 U
PLB	GS-PLB07	3	11/8/2017	mg/kg	0.00578 U	0.0193 U	0.00771 U	0.00482 U	0.00674 U	0.00771 U	0.00674 U	0.0289 U	0.0289 U	0.0193 U	0.00867 U	0.0029 U	0.00771 U	0.0289 U	0.0193 U	0.00674 U	0.0193 U	0.00867 U	0.00482 U
PLB	GS-PLB08	3	11/9/2017	mg/kg	0.00601 U	0.020 U	0.00802 U	0.00501 U	0.00701 U	0.00802 U	0.00701 U	0.0301 U	0.0301 U	0.020 U	0.00902 U	0.0030 U	0.00802 U	0.0301 U	0.020 U	0.00701 U	0.020 U	0.00902 U	0.00501 U
PLB	GS-PLB09	3	11/9/2017	mg/kg	0.00536 U	0.0179 U	0.00714 U	0.00446 U	0.00625 U	0.00714 U	0.00625 U	0.0268 U	0.0268 U	0.0179 U	0.00804 U	0.0027 U	0.00714 U	0.0268 U	0.0179 U	0.00625 U	0.0179 U	0.00804 U	0.00446 U
PLB	GS-PLB10	3	11/14/2017	mg/kg	0.00497 U	0.0166 U	0.00662 U	0.00414 U	0.00579 U	0.00662 U	0.00579 U	0.0248 U	0.0248 U	0.0166 U	0.00745 U	0.0025 U	0.00662 U	0.0248 U	0.0166 U	0.00579 U	0.0166 U	0.00745 U	0.00414 U
PLB	GS-PLB11	3	11/15/2017	mg/kg	0.00548 U	0.0183 U	0.00731 U	0.00457 U	0.0064 U	0.00731 U	0.0064 U	0.0274 U	0.0274 U	0.0183 U	0.00823 U	0.0027 U	0.00731 U	0.0274 U	0.0183 U	0.00640 U	0.0183 U	0.00823 U	0.00457 U
PLB	GS-FD02-111517	3	11/15/2017	mg/kg	0.00599 U	0.020 U	0.00799 U	0.0050 U	0.00699 U	0.00799 U	0.00699 U	0.030 U	0.030 U	0.020 U	0.00899 U	0.003 U	0.00799 U	0.030 U	0.020 U	0.00699 U	0.020 U	0.00899 U	0.0050 U
PLB	GS-PLB12	3	11/16/2017	mg/kg	0.00522 U	0.0174 U	0.00696 U	0.00435 U	0.00609 U	0.00696 U	0.00609 U	0.0261 U	0.0261 U	0.0174 U	0.00783 U	0.0026 U	0.00696 U	0.0261 U	0.0174 U	0.00609 U	0.0174 U	0.00783 U	0.00435 U
PLB	GS-FD02A-111617	3	11/16/2017	mg/kg	0.00534 U	0.0178 U	0.00712 U	0.00445 U	0.00623 U	0.00712 U	0.00623 U	0.0267 U	0.0267 U	0.0178 U	0.00801 U	0.0027 U	0.00712 U	0.0267 U	0.0178 U	0.00623 U	0.0178 U	0.00801 U	0.00445 U
PLB	GS-PLB13	3	11/17/2017	mg/kg	0.00512 U	0.0171 U	0.00683 U	0.00427 U	0.00597 U	0.00683 U	0.00597 U	0.0256 U	0.0256 U	0.0171 U	0.00768 U	0.0026 U	0.00683 U	0.0256 U	0.0171 U	0.00597 U	0.0171 U	0.00768 U	0.00427 U
PLB	GS-PLB14	3	11/17/2017	mg/kg	0.00535 U	0.0178 U	0.00713 U	0.00446 U	0.00624 U	0.00713 U	0.00624 U	0.0267 U	0.0267 U	0.0178 U	0.00802 U	0.0027 U	0.00713 U	0.0267 U	0.0178 U	0.00624 U	0.0178 U	0.00802 U	0.00446 U
PLB	GS-PLB15	3	11/20/2017	mg/kg	0.00521 U	0.0174 U	0.00694 U	0.00434 U	0.00608 U	0.00694 U	0.00608 U	0.026 U	0.026 U	0.0174 U	0.00781 U	0.003 U	0.00694 U	0.026 U	0.0174 U	0.00608 U	0.0174 U	0.00781 U	0.00434 U
PLB	GS-PLB16	3	11/27/2017	mg/kg	0.00446 U	0.0149 U	0.00594 U	0.00371 U	0.00520 U	0.00594 U	0.0052 U	0.0223 U	0.0223 U	0.0149 U	0.00669 U	0.0022 U	0.00594 U	0.0223 U	0.0149 U	0.0052 U	0.0149 U	0.00669 U	0.00371 U
PLB	GS-PLB17	3	11/28/2017	mg/kg	0.00508 U	0.0169 U	0.00677 U	0.00423 U	0.00592 U	0.00677 U	0.00592 U	0.0254 U	0.0254 U	0.0169 U	0.00761 U	0.0025 U	0.00677 U	0.0254 U	0.0169 U	0.00592 U	0.0169 U	0.00761 U	0.00423 U
PLB	GS-PLB18	3	11/30/2017	mg/kg	0.00508 U	0.0169 U	0.00678 U	0.00424 U	0.00593 U	0.00678 U	0.00593 U	0.0254 U	0.0254 U	0.0169 U	0.00763 U	0.0025 U	0.00678 U	0.0254 U	0.0169 U	0.00593 U	0.0169 U	0.00763 U	0.00424 U
PLB	GS-PLB19	3	11/30/2017	mg/kg	0.0191 U	0.0159 U	0.0215 U	0.0152 U	0.00942 U	0.0111 U	0.0198 U	0.0936 U	0.0328 U	0.0936 U	0.00529 U	0.0164 U	0.0202 U	0.0726 U	0.0198 U	0.0221 U	0.0186 U	0.0174 U	0.0117 U
PLB	GS-PLB20	3	12/1/2017	mg/kg	0.0187 U	0.0156 U	0.0211 U	0.0150 U	0.00926 U	0.0109 U	0.0195 U	0.0921 U	0.0323 U	0.0921 U	0.0052 U	0.0162 U	0.0198 U	0.0714 U	0.0195 U	0.0218 U	0.0183 U	0.0171 U	0.0115 U
PLB	GS-PLB21	3	12/4/2017	mg/kg	0.0178 U	0.0148 U	0.020 U	0.0142 U	0.00879 U	0.0104 U	0.0185 U	0.0874 U	0.0307 U	0.0874 U	0.00493 U	0.0153 U	0.0188 U	0.0678 U	0.0185 U	0.0207 U	0.0174 U	0.0162 U	0.0109 U
PLB	GS-FD03-120417	3	12/4/2017	mg/kg	0.0194 U	0.0162 U	0.0219 U	0.0155 U	0.0096 U	0.0113 U	0.0202 U	0.0954 U	0.0335 U	0.0954 U	0.00539 U	0.0167 U	0.0206 U	0.0740 U	0.0202 U	0.0225 U	0.0190 U	0.0177 U	0.0119 U
PLB	GS-PLB22	3	12/4/2017	mg/kg	0.0167 U	0.0139 U	0.0188 U	0.0134 U	0.00826 U	0.00973 U	0.0174 U	0.0821 U	0.0288 U	0.0821 U	0.00463 U	0.0144 U	0.0177 U	0.0637 U	0.0174 U	0.0194 U	0.0163 U	0.0152 U	0.0103 U
PLB	GS-PLB23	3	12/5/2017	mg/kg	0.0177 U	0.0147 U	0.0199 U	0.0142 U	0.00874 U	0.0103 U	0.0184 U	0.087 U	0.031 U	0.087 U	0.00491 U	0.015 U	0.0187 U	0.068 U	0.0184 U	0.0205 U	0.0173 U	0.0161 U	0.0109 U
PLB	GS-PLB24	3	12/5/2017	mg/kg	0.0168 U	0.0140 U	0.0190 U	0.0135 U	0.00832 U	0.00981 U	0.0175 U	0.0828 U	0.0290 U	0.0828 U	0.00467 U	0.0145 U	0.0178 U	0.0642 U	0.0175 U	0.0196 U	0.0165 U	0.0154 U	0.0103 U
PLB	GS-PLB25	3	12/5/2017	mg/kg	0.0165 U	0.0138 U	0.0186 U	0.0132 U	0.00818 U	0.00964 U	0.0172 U	0.0813 U	0.0285 U	0.0813 U	0.00459 U	0.0143 U	0.0175 U	0.0631 U	0.0172 U	0.0192 U	0.0162 U	0.0151 U	0.0102 U

See last page for notes.

TABLE 5-2

Laboratory Analytical Results for Confirmation Samples--VOCs Only

APS Former Grant Street Yard MGP Site, Phoenix, Arizona

Location	Sample ID	Sample Depth (ft bgs)[1]	Sample Date	Units[2]	1,4-Dichlorobenzene	2,2-Dichloropropane	2-Butanone	2-Chlorotoluene	2-Hexanone	4-Chlorotoluene	Acetone	Benzene	Bromobenzene	Bromochloromethane	Bromodichloromethane	Bromoform	Bromomethane	Carbon disulfide	Carbon tetrachloride	Chlorobenzene
Residential Soil Remediation Level[3,4]				**mg/kg**	**3.5**	**NE**	**NE**	**160**	**NE**	**NE**	**14000**	**0.65**	**28**	**NE**	**0.83**	**69**	**3.9**	**360**	**0.25**	**150**
Non-Residential Soil Remediation Level[5]				**mg/kg**	**79**	**NE**	**NE**	**510**	**NE**	**NE**	**54000**	**1.4**	**92**	**NE**	**18**	**2200**	**13**	**720**	**5.5**	**530**
Groundwater Protection Level[6]				**mg/kg**	**9.3**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**12**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**1.6**	**22**
DU4B	GS-DU4B-1a	26	8/4/2017	mg/kg	0.00712 U	0.0178 U	0.0356 U	0.00623 U	0.0356 U	0.0267 U	0.0712 U	0.00712 U	0.0089 U	0.00712 U	0.00445 U	0.00623 U	0.0534 U	0.0178 U	0.00623 U	0.00623 U
DU4B	GS-DU4B-1b	20	9/18/2017	mg/kg	0.00917 U	0.0229 U	0.0459 U	0.00803 U	0.0459 U	0.0344 U	0.0917 U	0.0917 U	0.0115 U	0.00917 U	0.00573 U	0.00803 U	0.0688 U	0.0229 U	0.00803 U	0.00803 U
DU4B	GS-DU4B-2-SCR	41	8/8/2017	mg/kg	0.00699 U	0.0175 U	0.035 U	0.00612 U	0.035 U	0.0262 U	0.00699 U	0.00699 U	0.00874 U	0.00699 U	0.00445 U	0.00612 U	0.0524 U	0.0175 U	0.00612 U	0.00612 U
DU4B	GS-FD01-080817-SCR	41	8/8/2017	mg/kg	0.00738 U	0.0185 U	0.0369 U	0.00646 U	0.0369 U	0.0277 U	0.00738 U	0.00738 U	0.00923 U	0.00738 U	0.00437 U	0.00646 U	0.0554 U	0.0185 U	0.00646 U	0.00646 U
DU4B	GS-DU4B-3	40	5/25/2017	mg/kg	0.11 U	0.11 U	0.54 U	0.27 U	0.54 U	0.27 U	1.1 U	0.054 U	0.27 U	0.27 U	0.11 U	0.27 U	0.27 U	0.27 U	0.27 U	0.054 U
DU4B	GS-DU4B-3a	36	8/16/2017	mg/kg	0.00618 U	0.0155 U	0.0309 U	0.00541 U	0.0309 U	0.0232 U	0.00618 U	0.00618 U	0.00773 U	0.00618 U	0.00386 U	0.00541 U	0.0464 U	0.0155 U	0.00541 U	0.00541 U
DU4B	GS-DU4B-4	40	5/25/2017	mg/kg	0.10 U	0.10 U	0.51 U	0.25 U	0.51 U	0.25 U	1.0 U	0.051 U	0.25 U	0.25 U	0.10 U	0.25 U	0.25 U	0.25 U	0.25 U	0.051 U
DU4B	GS-DU4B-4a	24	8/21/2017	mg/kg	0.00704 U	0.0176 U	0.0352 U	0.00616 U	0.0352 U	0.0264 U	0.00704 U	0.00704 U	0.0088 U	0.00704 U	0.0044 U	0.00616 U	0.0528 U	0.0176 U	0.00616 U	0.00616 U
DU4B	GS-DU4B-5	20	8/21/2017	mg/kg	0.0073 U	0.0182 U	0.0365 U	0.00639 U	0.0365 U	0.0274 U	0.0073 U	0.0073 U	0.00912 U	0.0073 U	0.00456 U	0.00639 U	0.0547 U	0.0182 U	0.00639 U	0.00639 U
DU4B	GS-DU4B-5a	20	9/18/2017	mg/kg	0.00833 U	0.0208 U	0.0417 U	0.00729 U	0.0417 U	0.0313 U	0.0833 U	0.0833 U	0.0104 U	0.00833 U	0.00521 U	0.00729 U	0.0625 U	0.0208 U	0.00729 U	0.00729 U
PLB	GS-PLB01	3	11/2/2017	mg/kg	0.00701 U	0.0175 U	0.035 U	0.00613 U	0.035 U	0.0263 U	0.00701 U	0.00701 U	0.00876 U	0.00701 U	0.00438 U	0.00613 U	0.0525 U	0.0175 U	0.00613 U	0.00613 U
PLB	GS-PLB02	3	11/2/2017	mg/kg	0.00667 U	0.0167 U	0.0333 U	0.00583 U	0.0333 U	0.025 U	0.00667 U	0.00667 U	0.00833 U	0.00667 U	0.00417 U	0.00583 U	0.05 U	0.0167 U	0.00583 U	0.00583 U
PLB	GS-PLB03	3	11/3/2017	mg/kg	0.008 U	0.02 U	0.04 U	0.007 U	0.04 U	0.03 U	0.008 U	0.008 U	0.01 U	0.008 U	0.005 U	0.007 U	0.06 U	0.02 U	0.007 U	0.007 U
PLB	GS-PLB04	3	11/6/2017	mg/kg	0.00648 U	0.0162 U	0.0328 U	0.00567 U	0.0328 U	0.0243 U	0.00648 U	0.00648 U	0.0081 U	0.00648 U	0.00405 U	0.00567 U	0.0493 U	0.0162 U	0.00567 U	0.00567 U
PLB	GS-FD01-110617	3	11/6/2017	mg/kg	0.00657 U	0.0164 U	0.0324 U	0.00575 U	0.0324 U	0.0246 U	0.00657 U	0.00657 U	0.00821 U	0.00657 U	0.00411 U	0.00575 U	0.0486 U	0.0164 U	0.00575 U	0.00575 U
PLB	GS-PLB05	3	11/7/2017	mg/kg	0.0083 U	0.0207 U	0.0415 U	0.00726 U	0.0415 U	0.0311 U	0.083 U	0.0083 U	0.0104 U	0.0083 U	0.00519 U	0.00726 U	0.0622 U	0.0207 U	0.00726 U	0.00726 U
PLB	GS-PLB06	3	11/7/2017	mg/kg	0.00759 U	0.019 U	0.038 U	0.00664 U	0.038 U	0.0285 U	0.0759 U	0.00759 U	0.00949 U	0.00759 U	0.00474 U	0.00664 U	0.0569 U	0.019 U	0.00664 U	0.00664 U
PLB	GS-PLB07	3	11/8/2017	mg/kg	0.00771 U	0.0193 U	0.0385 U	0.00674 U	0.0385 U	0.0289 U	0.0771 U	0.00771 U	0.00963 U	0.00771 U	0.00482 U	0.00674 U	0.0578 U	0.0193 U	0.00674 U	0.00674 U
PLB	GS-PLB08	3	11/9/2017	mg/kg	0.00802 U	0.020 U	0.040 U	0.00701 U	0.040 U	0.0301 U	0.0802 U	0.00802 U	0.010 U	0.00802 U	0.00501 U	0.00701 U	0.0601 U	0.020 U	0.00701 U	0.00701 U
PLB	GS-PLB09	3	11/9/2017	mg/kg	0.00714 U	0.0179 U	0.0357 U	0.00625 U	0.0357 U	0.0268 U	0.0714 U	0.00714 U	0.00893 U	0.00714 U	0.00446 U	0.00625 U	0.0536 U	0.0179 U	0.00625 U	0.00625 U
PLB	GS-PLB10	3	11/14/2017	mg/kg	0.00662 U	0.0166 U	0.0331 U	0.00579 U	0.0331 U	0.0248 U	0.0662 U	0.00662 U	0.00828 U	0.00662 U	0.00414 U	0.00579 U	0.0497 U	0.0166 U	0.00579 U	0.00579 U
PLB	GS-PLB11	3	11/15/2017	mg/kg	0.00731 U	0.0183 U	0.0366 U	0.0064 U	0.0366 U	0.0274 U	0.0731 U	0.00731 U	0.00914 U	0.00731 U	0.00457 U	0.0064 U	0.0548 U	0.0183 U	0.0064 U	0.0064 U
PLB	GS-FD02-111517	3	11/15/2017	mg/kg	0.00799 U	0.020 U	0.040 U	0.00699 U	0.040 U	0.030 U	0.0799 U	0.00799 U	0.00999 U	0.00799 U	0.0050 U	0.00699 U	0.0599 U	0.020 U	0.00699 U	0.00699 U
PLB	GS-PLB12	3	11/16/2017	mg/kg	0.00696 U	0.0174 U	0.0348 U	0.00609 U	0.0348 U	0.0261 U	0.0696 U	0.00696 U	0.0087 U	0.00696 U	0.00435 U	0.00609 U	0.0522 U	0.0174 U	0.00609 U	0.00609 U
PLB	GS-FD02A-111617	3	11/16/2017	mg/kg	0.00712 U	0.0178 U	0.0356 U	0.00623 U	0.0356 U	0.0267 U	0.0712 U	0.00712 U	0.0089 U	0.00712 U	0.00445 U	0.00623 U	0.0534 U	0.0178 U	0.00623 U	0.00623 U
PLB	GS-PLB13	3	11/17/2017	mg/kg	0.00683 U	0.0171 U	0.0341 U	0.00597 U	0.0341 U	0.0256 U	0.0683 U	0.00683 U	0.00853 U	0.00683 U	0.00427 U	0.00597 U	0.0512 U	0.0171 U	0.00597 U	0.00597 U
PLB	GS-PLB14	3	11/17/2017	mg/kg	0.00713 U	0.0178 U	0.0357 U	0.00624 U	0.0357 U	0.0267 U	0.0713 U	0.00713 U	0.00891 U	0.00713 U	0.00446 U	0.00624 U	0.0535 U	0.0178 U	0.00624 U	0.00624 U
PLB	GS-PLB15	3	11/20/2017	mg/kg	0.00694 U	0.0174 U	0.0347 U	0.00608 U	0.0347 U	0.026 U	0.0694 U	0.00694 U	0.00868 U	0.00694 U	0.00434 U	0.00608 U	0.0521 U	0.0174 U	0.00608 U	0.00608 U
PLB	GS-PLB16	3	11/27/2017	mg/kg	0.00594 U	0.0149 U	0.0297 U	0.0052 U	0.0297 U	0.0223 U	**0.442 J**	0.00594 U	0.00743 U	0.00594 U	0.00371 U	0.0052 U	0.0446 U	0.0149 U	0.0052 U	0.0052 U
PLB	GS-PLB17	3	11/28/2017	mg/kg	0.00677 U	0.0169 U	0.0338 U	0.00592 U	0.0338 U	0.0254 U	0.0677 U	0.00677 U	0.00846 U	0.00677 U	0.00423 U	0.00592 U	0.0508 U	0.0169 U	0.00592 U	0.00592 U
PLB	GS-PLB18	3	11/30/2017	mg/kg	0.00678 U	0.0169 U	0.0339 U	0.00593 U	0.0339 U	0.0254 U	0.0678 U	0.00678 U	0.00847 U	0.00678 U	0.00424 U	0.00593 U	0.0508 U	0.0169 U	0.00593 U	0.00593 U
PLB	GS-PLB19	3	11/30/2017	mg/kg	0.0111 U	0.0554 U	0.137 U	0.0184 U	0.131 U	0.0206 U	0.936 U	0.0073 U	0.0205 U	0.0222 U	0.0124 U	0.0327 U	0.0495 U	0.0513 U	0.0109 U	0.0112 U
PLB	GS-PLB20	3	12/1/2017	mg/kg	0.0109 U	0.0545 U	0.134 U	0.0181 U	0.129 U	0.0202 U	0.460 U	0.0072 U	0.0202 U	0.0219 U	0.0122 U	0.0322 U	0.0486 UJ	0.0505 U	0.0108 U	0.0110 U
PLB	GS-PLB21	3	12/4/2017	mg/kg	0.0104 U	0.0517 U	0.127 U	0.0172 U	0.123 U	0.0192 U	0.437 U	0.0069 U	0.0191 U	0.0208 U	0.0116 U	0.0305 U	0.0462 U	0.0479 U	0.0102 U	0.0105 U
PLB	GS-FD03-120417	3	12/4/2017	mg/kg	0.0113 U	0.0565 U	0.139 U	0.0187 U	0.134 U	0.021 U	0.477 U	0.0075 U	0.0209 U	0.0227 U	0.0127 U	0.0333 U	0.0504 U	0.0523 U	0.0111 U	0.0114 U
PLB	GS-PLB22	3	12/4/2017	mg/kg	0.00975 U	0.0486 U	0.120 U	0.0161 U	0.115 U	0.018 U	0.411 U	0.00644 U	0.0180 U	0.0195 U	0.0109 U	0.0287 U	0.0434 UJ	0.045 U	0.00959 U	0.00982 U
PLB	GS-PLB23	3	12/5/2017	mg/kg	0.0103 U	0.0515 U	0.127 U	0.0171 U	0.122 U	0.0191 U	0.435 U	0.0068 U	0.0190 U	0.0207 U	0.0115 U	0.0304 U	0.0459 U	0.0477 U	0.0102 U	0.0104 U
PLB	GS-PLB24	3	12/5/2017	mg/kg	0.00983 U	0.049 U	0.121 U	0.0162 U	0.116 U	0.0182 U	0.414 U	0.00649 U	0.0181 U	0.0197 U	0.0110 U	0.0289 U	0.0437 U	0.0454 U	0.00967 U	0.00990 U
PLB	GS-PLB25	3	12/5/2017	mg/kg	0.00966 U	0.0481 U	0.119 U	0.0160 U	0.114 U	0.0179 U	0.407 U	0.00638 U	0.0178 U	0.0193 U	0.0108 U	0.0284 U	0.0429 U	0.0446 U	0.0095 U	0.0097 U

See last page for notes.

TABLE 5-2

Laboratory Analytical Results for Confirmation Samples--VOCs Only

APS Former Grant Street Yard MGP Site, Phoenix, Arizona

Location	Sample ID	Sample Depth (ft bgs)[1]	Sample Date	Units[2]	Chloroethane	Chloroform	Chloromethane	cis-1,2-Dichloroethene	cis-1,3-Dichloropropene	Dibromochloromethane	Dibromomethane	Dichlorodifluoromethane	Ethylbenzene	Hexachlorobutadiene	Iodomethane	Isopropylbenzene	m,p-Xylenes	4-Methyl-2-pentanone	Methyl tert-butyl ether	Methylene chloride	n-Butylbenzene
Residential Soil Remediation Level[3,4]				**mg/kg**	**3**	**0.94**	**48**	**43**	**NE**	**1.1**	**67**	**94**	**400**	**7**	**NE**	**92**	**NE**	**5300**	**32**	**9.3**	**240**
Non-Residential Soil Remediation Level[5]				**mg/kg**	**65**	**20**	**160**	**150**	**NE**	**26**	**230**	**310**	**400**	**180**	**NE**	**92**	**NE**	**17000**	**710**	**210**	**240**
Groundwater Protection Level[6]				**mg/kg**	**NE**	**23.9**	**NE**	**4.9**	**NE**	**NE**	**NE**	**NE**	**120**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**	**NE**
DU4B	GS-DU4B-1a	26	8/4/2017	mg/kg	0.0178 U	0.00712 U	0.0178 U	0.0178 U	0.00445 U	0.00623 U	0.00712 U	0.0178 U	0.00712 U	0.0267 U	0.0267 U	0.0089 U	0.0178 U	0.0267 U	0.0178 U	0.0801 U	0.0801 U
DU4B	GS-DU4B-1b	20	9/18/2017	mg/kg	0.0229 U	0.00917 U	0.0229 U	0.0229 U	0.00573 U	0.00803 U	0.00917 U	0.0229 U	0.00917 U	0.0344 U	0.0344 U	0.0115 U	0.0229 U	0.0344 U	0.0229 U	0.103 U	0.0103 U
DU4B	GS-DU4B-2-SCR	41	8/8/2017	mg/kg	0.0175 U	0.00699 U	0.0175 U	0.0175 U	0.00437 U	0.00612 U	0.00699 U	0.0175 U	0.00699 U	0.0262 U	0.0262 U	0.00874 U	0.0175 U	0.0262 U	0.0175 U	0.0787 U	0.0787 U
DU4B	GS-FD01-080817-SCR	41	8/8/2017	mg/kg	0.0185 U	0.00738 U	0.0185 U	0.0185 U	0.00461 U	0.00646 U	0.00738 U	0.0185 U	0.00738 U	0.0277 U	0.0277 U	0.00923 U	0.0185 U	0.0277 U	0.0185 U	0.083 U	0.083 U
DU4B	GS-DU4B-3	40	5/25/2017	mg/kg	0.27 U	0.11 U	0.27 U	0.11 U	0.11 U	0.11 U	0.11 U	0.27 U	0.11 U	0.27 U	0.27 U	0.11 U	0.16 U	0.54 U	0.054 U	0.054 U	0.27 U
DU4B	GS-DU4B-3a	36	8/16/2017	mg/kg	0.0155 U	0.00618 U	0.0155 U	0.0155 U	0.00386 U	0.00541 U	0.00618 U	0.0155 U	0.00618 U	0.0232 U	0.0232 U	0.00773 U	0.0155 U	0.0232 U	0.0155 U	0.0696 U	0.0696 U
DU4B	GS-DU4B-4	40	5/25/2017	mg/kg	0.25 U	0.10 U	0.25 U	0.10 U	0.10 U	0.10 U	0.10 U	0.25 U	0.10 U	0.25 U	0.25 U	0.10 U	0.15 U	0.51 U	0.051 U	0.051 U	0.25 U
DU4B	GS-DU4B-4a	24	8/21/2017	mg/kg	0.0176 U	0.00704 U	0.0176 U	0.0176 U	0.0044 U	0.00616 U	0.00704 U	0.0176 U	0.00704 U	0.0264 U	0.0264 U	0.0088 U	0.0176 U	0.0264 U	0.0176 U	0.0792 U	0.0792 U
DU4B	GS-DU4B-5	20	8/21/2017	mg/kg	0.0182 U	0.0073 U	0.0182 U	0.0182 U	0.00456 U	0.00639 U	0.0073 U	0.0182 U	0.0073 U	0.0274 U	0.0274 U	0.00912 U	0.0182 U	0.0274 U	0.0182 U	0.0821 U	0.0821 U
DU4B	GS-DU4B-5a	20	9/18/2017	mg/kg	0.0208 U	0.00833 U	0.0208 U	0.0208 U	0.00521 U	0.00729 U	0.00833 U	0.0208 U	0.00833 U	0.0313 U	0.0313 U	0.0104 U	0.0208 U	0.0313 U	0.0208 U	0.0937 U	0.00938 U
PLB	GS-PLB01	3	11/2/2017	mg/kg	0.0175 U	0.00701 U	0.0175 U	0.0175 U	0.00438 U	0.00613 U	0.00701 U	0.0175 U	0.00701 U	0.0263 U	0.0263 U	0.00876 U	0.0175 U	0.0263 U	0.0175 U	0.00788 U	0.00788 U
PLB	GS-PLB02	3	11/2/2017	mg/kg	0.0167 U	0.00667 U	0.0167 U	0.0167 U	0.00417 U	0.00583 U	0.00667 U	0.0167 U	0.00667 U	0.025 U	0.025 U	0.00833 U	0.0167 U	0.025 U	0.0167 U	0.0075 U	0.0075 U
PLB	GS-PLB03	3	11/3/2017	mg/kg	0.02 U	0.008 U	0.02 U	0.02 U	0.005 U	0.007 U	0.008 U	0.02 U	0.008 U	0.03 U	0.03 U	0.01 U	0.02 U	0.03 U	0.02 U	0.009 U	0.009 U
PLB	GS-PLB04	3	11/6/2017	mg/kg	0.0162 U	0.00648 U	0.0162 U	0.0162 U	0.00405 U	0.00567 U	0.00648 U	0.0162 U	0.00648 U	0.0243 U	0.0243 U	0.0081 U	0.0162 U	0.0243 U	0.0162 U	0.00739 U	0.00739 U
PLB	GS-FD01-110617	3	11/6/2017	mg/kg	0.0164 U	0.00657 U	0.0164 U	0.0164 U	0.00411 U	0.00575 U	0.00657 U	0.0164 U	0.00657 U	0.0246 U	0.0246 U	0.00821 U	0.0164 U	0.0246 U	0.0164 U	0.00729 U	0.00729 U
PLB	GS-PLB05	3	11/7/2017	mg/kg	0.0207 U	0.0083 U	0.0207 U	0.0207 U	0.00519 U	0.00726 U	0.0083 U	0.0207 U	0.0083 U	0.0311 U	0.0311 U	0.0104 U	0.0207 U	0.0311 U	0.0207 U	0.0934 U	0.00934 U
PLB	GS-PLB06	3	11/7/2017	mg/kg	0.0190 U	0.00759 U	0.019 U	0.019 U	0.00474 U	0.00664 U	0.00759 U	0.019 U	0.00759 U	0.0285 U	0.0285 U	0.00949 U	0.019 U	0.0285 U	0.019 U	0.0854 U	0.00854 U
PLB	GS-PLB07	3	11/8/2017	mg/kg	0.0193 U	0.00771 U	0.0193 U	0.0193 U	0.00482 U	0.00674 U	0.00771 U	0.0193 U	0.00771 U	0.0289 U	0.0289 U	0.00963 U	0.0193 U	0.0289 U	0.0193 U	0.0867 U	0.00867 U
PLB	GS-PLB08	3	11/9/2017	mg/kg	0.0200 U	0.00802 U	0.020 U	0.020 U	0.00501 U	0.00701 U	0.00802 U	0.020 U	0.00802 U	0.0301 U	0.0301 U	0.010 U	0.020 U	0.0301 U	0.020 U	0.0902 U	0.00902 U
PLB	GS-PLB09	3	11/9/2017	mg/kg	0.0179 U	0.00714 U	0.0179 U	0.0179 U	0.00446 U	0.00625 U	0.00714 U	0.0179 U	0.00714 U	0.0268 U	0.0268 U	0.00893 U	0.0179 U	0.0268 U	0.0179 U	0.0804 U	0.00804 U
PLB	GS-PLB10	3	11/14/2017	mg/kg	0.0166 U	0.00662 U	0.0166 U	0.0166 U	0.00414 U	0.00579 U	0.00662 U	0.0166 U	0.00662 U	0.0248 U	0.0248 U	0.00828 U	0.0166 U	0.0248 U	0.0166 U	0.0745 U	0.00745 U
PLB	GS-PLB11	3	11/15/2017	mg/kg	0.0183 U	0.00731 U	0.0183 U	0.0183 U	0.00457 U	0.0064 U	0.00731 U	0.0183 U	0.00731 U	0.0274 U	0.0274 U	0.00914 U	0.0183 U	0.0274 U	0.0183 U	0.0823 U	0.00823 U
PLB	GS-FD02-111517	3	11/15/2017	mg/kg	0.0200 U	0.00799 U	0.020 U	0.020 U	0.0050 U	0.00699 U	0.00799 U	0.020 U	0.00799 U	0.030 U	0.030 U	0.00999 U	0.020 U	0.030 U	0.020 U	0.0899 U	0.00899 U
PLB	GS-PLB12	3	11/16/2017	mg/kg	0.0174 U	0.00696 U	0.0174 U	0.0174 U	0.00435 U	0.00609 U	0.00696 U	0.0174 U	0.00696 U	0.0261 U	0.0261 U	0.0087 U	0.0174 U	0.0261 U	0.0174 U	0.0783 U	0.00783 U
PLB	GS-FD02A-111617	3	11/16/2017	mg/kg	0.0178 U	0.00712 U	0.0178 U	0.0178 U	0.00445 U	0.00623 U	0.00712 U	0.0178 U	0.00712 U	0.0267 U	0.0267 U	0.0089 U	0.0178 U	0.0267 U	0.0178 U	0.0801 U	0.00801 U
PLB	GS-PLB13	3	11/17/2017	mg/kg	0.0171 U	0.00683 U	0.0171 U	0.0171 U	0.00427 U	0.00597 U	0.00683 U	0.0171 U	0.00683 U	0.0256 U	0.0256 U	0.00853 U	0.0171 U	0.0256 U	0.0171 U	0.0768 U	0.00768 U
PLB	GS-PLB14	3	11/17/2017	mg/kg	0.0178 U	0.00713 U	0.0178 U	0.0178 U	0.00446 U	0.00624 U	0.00713 U	0.0178 U	0.00713 U	0.0267 U	0.0267 U	0.00891 U	0.0178 U	0.0267 U	0.0178 U	0.0802 U	0.00802 U
PLB	GS-PLB15	3	11/20/2017	mg/kg	0.0174 U	0.00694 U	0.0174 U	0.0174 U	0.00434 U	0.00608 U	0.00694 U	0.0174 U	0.00694 U	0.026 U	0.026 U	0.00868 U	0.0174 U	0.026 U	0.0174 U	0.0781 U	0.00781 U
PLB	GS-PLB16	3	11/27/2017	mg/kg	0.0149 U	0.00594 U	0.0149 U	0.0149 U	0.00371 U	0.0052 U	0.00594 U	0.0149 U	0.00594 U	0.0223 U	0.0223 U	0.00743 U	0.0149 U	0.0223 U	0.0149 U	0.0669 U	0.00669 U
PLB	GS-PLB17	3	11/28/2017	mg/kg	0.0169 U	0.00677 U	0.0169 U	0.0169 U	0.00423 U	0.00592 U	0.00677 U	0.0169 U	0.00677 U	0.0254 U	0.0254 U	0.00846 U	0.0169 U	0.0254 U	0.0169 U	0.0761 U	0.00761 U
PLB	GS-PLB18	3	11/30/2017	mg/kg	0.0169 U	0.00678 U	0.0169 U	0.0169 U	0.00424 U	0.00593 U	0.00678 U	0.0169 U	0.00678 U	0.0254 U	0.0254 U	0.00847 U	0.0169 U	0.0254 U	0.0169 U	0.0763 U	0.00763 U
PLB	GS-PLB19	3	11/30/2017	mg/kg	0.0257 U	0.0137 U	0.014 U	0.016 U	0.0200 U	0.0221 U	0.01650 U	0.020 U	0.0201 U	0.0936 U	0.0141 U	0.00783 U	0.0468 U	0.0932 U	0.0468 U	0.234 U	0.0936 U
PLB	GS-PLB20	3	12/1/2017	mg/kg	0.0253 UJ	0.0135 U	0.0137 U	0.0157 U	0.0197 U	0.0218 U	0.01620 U	0.0196 U	0.0198 U	0.0921 U	0.0138 U	0.0077 U	0.046 U	0.0917 U	0.046 U	0.230 U	0.0921 U
PLB	GS-PLB21	3	12/4/2017	mg/kg	0.0240 U	0.0128 U	0.013 U	0.015 U	0.0187 U	0.0207 U	0.01540 U	0.0186 U	0.0188 U	0.0874 U	0.0131 U	0.00731 U	0.0437 U	0.087 U	0.0437 U	0.219 U	0.0874 U
PLB	GS-FD03-120417	3	12/4/2017	mg/kg	0.0262 U	0.0140 U	0.0142 U	0.0162 U	0.0204 U	0.0226 U	0.01680 U	0.0203 U	0.0205 U	0.0954 U	0.0143 U	0.00798 U	0.0477 U	0.095 U	0.0477 U	0.239 U	0.0954 U
PLB	GS-PLB22	3	12/4/2017	mg/kg	0.0225 UJ	0.0120 U	0.0123 U	0.0140 U	0.0176 U	0.0194 U	0.01450 U	0.0175 U	0.0176 U	0.0821 U	0.0123 U	0.00687 U	0.0411 U	0.0818 U	0.0411 U	0.205 U	0.0821 U
PLB	GS-PLB23	3	12/5/2017	mg/kg	0.0239 U	0.0127 U	0.013 U	0.015 U	0.0186 U	0.0206 U	0.01530 U	0.0185 U	0.0187 U	0.087 U	0.0131 U	0.00727 U	0.0435 U	0.0866 U	0.0435 U	0.217 U	0.0870 U
PLB	GS-PLB24	3	12/5/2017	mg/kg	0.0227 U	0.0121 U	0.0124 U	0.0141 U	0.0177 U	0.0196 U	0.01460 U	0.0176 U	0.0178 U	0.0828 U	0.0124 U	0.00692 U	0.0414 U	0.0824 U	0.0414 U	0.207 U	0.0828 U
PLB	GS-PLB25	3	12/5/2017	mg/kg	0.0223 U	0.0119 U	0.0121 U	0.0138 U	0.0174 U	0.0192 U	0.01430 U	0.0173 U	0.0175 U	0.0813 U	0.0122 U	0.0068 U	0.0407 U	0.081 U	0.0407 U	0.203 U	0.0813 U

See last page for notes.

TABLE 5-2

Laboratory Analytical Results for Confirmation Samples--VOCs Only

APS Former Grant Street Yard MGP Site, Phoenix, Arizona

Location	Sample ID	Sample Depth (ft bgs)[1]	Sample Date	Units[2]	n-Propylbenzene	Naphthalene	o-Xylene	p-Isopropyltoluene	Tetrachloroethene	sec-Butylbenzene	Styrene	Trichloroethene	tert-Butylbenzene	Toluene	trans-1,2-Dichloroethene	trans-1,3-Dichloropropene	Trichlorofluoromethane	Vinyl Acetate	Vinyl chloride	Total Xylene
Residential Soil Remediation Level[3,4]				**mg/kg**	**240**	**56**	**NE**	**NE**	**0.51**	**220**	**1500**	**3**	**390**	**650**	**69**	**NE**	**390**	**NE**	**0.085**	**270**
Non-Residential Soil Remediation Level[5]				**mg/kg**	**240**	**190**	**NE**	**NE**	**13**	**220**	**1500**	**65**	**390**	**650**	**230**	**NE**	**1300**	**NE**	**0.75**	**420**
Groundwater Protection Level[6]				**mg/kg**	**NE**	**>1E06**	**NE**	**NE**	**1.3**	**5760**	**36**	**0.61**	**NE**	**1.31E+05**	**8.4**	**NE**	**NE**	**NE**	**NE**	**3.21E+08**
DU4B	GS-DU4B-1a	26	8/4/2017	mg/kg	0.00712 U	0.0178 U	0.0089 U	0.0267 U	0.0178 U	0.00801 U	0.00623 U	0.00534 U	0.0178 U	0.0267 U	0.00712 U	0.00445 U	0.0178 U	0.0356 U	0.0356 U	0.0089 U
DU4B	GS-DU4B-1b	20	9/18/2017	mg/kg	0.00917 U	0.0229 U	0.0115 U	0.0344 U	0.0229 U	0.0103 U	0.00803 U	0.00688 U	0.0229 U	0.0344 U	0.00917 U	0.00573 U	0.0229 U	0.0459 U	0.0459 U	0.0115 U
DU4B	GS-DU4B-2-SCR	41	8/8/2017	mg/kg	0.00699 U	0.0175 U	0.00874 U	0.0262 U	0.0175 U	0.00787 U	0.00612 U	0.00524 U	0.0175 U	0.0262 U	0.00699 U	0.00437 U	0.0175 U	0.035 U	0.035 U	0.00874 U
DU4B	GS-FD01-080817-SCR	41	8/8/2017	mg/kg	0.00738 U	0.0185 U	0.00923 U	0.0277 U	0.0185 U	0.0083 U	0.00646 U	0.00554 U	0.0185 U	0.0277 U	0.00738 U	0.00461 U	0.0185 U	0.0369 U	0.0369 U	0.00923 U
DU4B	GS-DU4B-3	40	5/25/2017	mg/kg	0.11 U	0.27 U	0.16 U	0.11 U	0.11 U	0.27 U	0.11 U	0.11 U	0.27 U	0.11 U	0.11 U	0.11 U	0.27 U	1.4 U	0.054 U	0.33 U
DU4B	GS-DU4B-3a	36	8/16/2017	mg/kg	0.00618 U	**0.112 J**	0.00773 U	0.0232 U	0.0155 U	0.00696 U	0.00541 U	0.00464 U	0.0155 U	0.0232 U	0.00618 U	0.00386 U	0.0155 U	0.0309 U	0.0309 U	0.00773 U
DU4B	GS-DU4B-4	40	5/25/2017	mg/kg	0.10 U	0.25 U	0.15 U	0.10 U	0.10 U	0.25 U	0.10 U	0.10 U	0.25 U	0.10 U	0.10 U	0.10 U	0.25 U	1.3 U	0.051 U	0.31 U
DU4B	GS-DU4B-4a	24	8/21/2017	mg/kg	0.00704 U	0.0176 U	0.0088 U	0.0264 U	0.0176 U	0.00792 U	0.00616 U	0.00528 U	0.0176 U	0.0264 U	0.00704 U	0.0044 U	0.0176 U	0.0352 U	0.0352 U	0.0088 U
DU4B	GS-DU4B-5	20	8/21/2017	mg/kg	0.0073 U	0.0182 U	0.00912 U	0.0274 U	0.0182 U	0.00821 U	0.00639 U	0.00547 U	0.0182 U	0.0274 U	0.0073 U	0.00456 U	0.0182 U	0.0365 U	0.0365 U	0.00912 U
DU4B	GS-DU4B-5a	20	9/18/2017	mg/kg	0.00833 U	0.0208 U	0.0104 U	0.0313 U	0.0208 U	0.00938 U	0.00729 U	0.00625 U	0.0208 U	0.0313 U	0.00833 U	0.00521 U	0.0208 U	0.0417 U	0.0417 U	0.0104 U
PLB	GS-PLB01	3	11/2/2017	mg/kg	0.00701 U	0.0175 U	0.00876 U	0.0263 U	0.0175 U	0.00788 U	0.00613 U	0.00525 U	0.0175 U	0.0263 U	0.00701 U	0.00438 U	0.0175 U	0.035 U	0.035 U	0.00876 U
PLB	GS-PLB02	3	11/2/2017	mg/kg	0.00667 U	0.0167 U	0.00833 U	0.025 U	0.0167 U	0.0075 U	0.00583 U	0.005 U	**0.0308 J**	0.025 U	0.00667 U	0.00417 U	0.0167 U	0.0333 U	0.0333 U	0.00833 U
PLB	GS-PLB03	3	11/3/2017	mg/kg	0.008 U	0.02 U	0.01 U	0.03 U	0.02 U	0.009 U	0.007 U	0.006 U	0.02 U	0.03 U	0.008 U	0.005 U	0.02 U	0.04 U	0.04 U	0.01 U
PLB	GS-PLB04	3	11/6/2017	mg/kg	0.00648 U	0.0162 U	0.0081 U	0.0243 U	0.0162 U	0.00739 U	0.00567 U	0.00486 U	0.0162 U	0.0243 U	0.00648 U	0.00405 U	0.0162 U	0.0328 U	0.0328 U	0.0081 U
PLB	GS-FD01-110617	3	11/6/2017	mg/kg	0.00657 U	0.0164 U	0.00821 U	0.0246 U	0.0164 U	0.00729 U	0.00575 U	0.00493 U	0.0164 U	0.0246 U	0.00657 U	0.00411 U	0.0164 U	0.0324 U	0.0324 U	0.00821 U
PLB	GS-PLB05	3	11/7/2017	mg/kg	0.0083 U	0.0207 U	0.0104 U	0.0311 U	0.0207 U	0.00934 U	0.00726 U	0.00622 U	0.0207 U	0.0311 U	0.0083 U	0.00519 U	0.0207 U	0.0415 U	0.0415 U	0.0104 U
PLB	GS-PLB06	3	11/7/2017	mg/kg	0.00759 U	0.019 U	0.00949 U	0.0285 U	0.019 U	0.00854 U	0.00664 U	0.00569 U	0.019 U	0.0285 U	0.00759 U	0.00474 U	0.019 U	0.038 U	0.038 U	0.00949 U
PLB	GS-PLB07	3	11/8/2017	mg/kg	0.00771 U	0.0193 U	0.00963 U	0.0289 U	0.0193 U	0.00867 U	0.00674 U	0.00578 U	0.0193 U	0.0289 U	0.00771 U	0.00482 U	0.0193 U	0.0385 U	0.0385 U	0.00963 U
PLB	GS-PLB08	3	11/9/2017	mg/kg	0.00802 U	0.020 U	0.0100 U	0.0301 U	0.020 U	0.00902 U	0.00701 U	0.00601 U	0.020 U	0.0301 U	0.00802 U	0.00501 U	0.020 U	0.0401 U	0.0401 U	0.010 U
PLB	GS-PLB09	3	11/9/2017	mg/kg	0.00714 U	0.0179 U	0.00893 U	0.0268 U	0.0179 U	0.00804 U	0.00625 U	0.00536 U	0.0179 U	0.0268 U	0.00714 U	0.00446 U	0.0179 U	0.0357 U	0.0357 U	0.00893 U
PLB	GS-PLB10	3	11/14/2017	mg/kg	0.00662 U	0.0166 U	0.00828 U	0.0248 U	0.0166 U	0.00745 U	0.00579 U	0.00497 U	0.0166 U	0.0248 U	0.00662 U	0.00414 U	0.0166 U	0.0331 U	0.0331 U	0.00828 U
PLB	GS-PLB11	3	11/15/2017	mg/kg	0.00731 U	0.0183 U	0.00914 U	0.0274 U	0.0183 U	0.00823 U	0.0064 U	0.00548 U	0.0183 U	0.0274 U	0.00731 U	0.00457 U	0.0183 U	0.0366 U	0.0366 U	0.00914 U
PLB	GS-FD02-111517	3	11/15/2017	mg/kg	0.00799 U	0.020 U	0.00999 U	0.030 U	0.020 U	0.00899 U	0.00699 U	0.00599 U	0.020 U	0.030 U	0.00799 U	0.0050 U	0.020 U	0.040 U	0.040 U	0.00999 U
PLB	GS-PLB12	3	11/16/2017	mg/kg	0.00696 U	0.0174 U	0.0087 U	0.0261 U	0.0174 U	0.00783 U	0.00609 U	0.00522 U	0.0174 U	0.0261 U	0.00696 U	0.00435 U	0.0174 U	0.0348 U	0.0348 U	0.0087 U
PLB	GS-FD02A-111617	3	11/16/2017	mg/kg	0.00712 U	0.0178 U	0.0089 U	0.0267 U	0.0178 U	0.00801 U	0.00623 U	0.00534 U	0.0178 U	0.0267 U	0.00712 U	0.00445 U	0.0178 U	0.0356 U	0.0356 U	0.0089 U
PLB	GS-PLB13	3	11/17/2017	mg/kg	0.00683 U	0.0171 U	0.00853 U	0.0256 U	0.0171 U	0.00768 U	0.00597 U	0.00512 U	0.0171 U	0.0256 U	0.00683 U	0.00427 U	0.0171 U	0.0341 U	0.0341 U	0.00853 U
PLB	GS-PLB14	3	11/17/2017	mg/kg	0.00713 U	0.0178 U	0.00891 U	0.0267 U	0.0178 U	0.00802 U	0.00624 U	0.00535 U	0.0178 U	0.0267 U	0.00713 U	0.00446 U	0.0178 U	0.0357 U	0.0357 U	0.00891 U
PLB	GS-PLB15	3	11/20/2017	mg/kg	0.00694 U	0.0174 U	0.00868 U	0.026 U	0.0174 U	0.00781 U	0.00608 U	0.00521 U	0.0174 U	0.026 U	0.00694 U	0.00434 U	0.0174 U	0.0347 U	0.0347 U	0.00868 U
PLB	GS-PLB16	3	11/27/2017	mg/kg	0.00594 U	0.0149 U	0.00743 U	0.0223 U	0.0149 U	0.00669 U	0.0052 U	0.00446 U	0.0149 U	0.0223 U	0.00594 U	0.00371 U	0.0149 U	0.0297 U	0.0297 U	0.00743 U
PLB	GS-PLB17	3	11/28/2017	mg/kg	0.00677 U	0.0169 U	0.00846 U	0.0254 U	0.0169 U	0.00761 U	0.00592 U	0.00508 U	0.0169 U	0.0254 U	0.00677 U	0.00423 U	0.0169 U	0.0338 U	0.0338 U	0.00846 U
PLB	GS-PLB18	3	11/30/2017	mg/kg	**0.0178 J**	0.0169 U	0.00847 U	0.0254 U	0.0169 U	**0.0225 J**	0.00593 U	0.00508 U	**0.0195 J**	0.0254 U	0.00678 U	0.00424 U	0.0169 U	0.0339 U	0.0339 U	0.00847 U
PLB	GS-PLB19	3	11/30/2017	mg/kg	0.00839 U	0.0936 U	0.0234 U	0.0197 U	0.012 U	0.0230 U	0.00703 U	0.0153 U	0.00966 U	0.0468 U	0.0137 U	0.0142 U	0.0227 U	0.0881 U	0.0387 U	0.0234 U
PLB	GS-PLB20	3	12/1/2017	mg/kg	0.00825 U	0.0921 U	0.0230 U	0.0194 U	0.0118 U	0.0226 U	0.00691 U	0.0151 U	0.0095 U	0.046 U	0.0135 U	0.0140 U	0.0224 U	0.0867 U	0.0381 U	0.0230 U
PLB	GS-PLB21	3	12/4/2017	mg/kg	0.00783 U	0.0874 U	0.0219 U	0.0184 U	0.0112 U	0.0214 U	0.00656 U	0.0143 U	0.00902 U	0.0437 U	0.0128 U	0.0133 U	0.0212 U	0.0823 U	0.0361 U	0.0219 U
PLB	GS-FD03-120417	3	12/4/2017	mg/kg	0.00855 U	0.0954 U	0.0239 U	0.0201 U	0.0122 U	0.0234 U	0.00716 U	0.0156 U	0.00985 U	0.0477 U	0.0140 U	0.0145 U	0.0232 U	0.0898 U	0.0395 U	0.0239 U
PLB	GS-PLB22	3	12/4/2017	mg/kg	0.00735 U	0.0821 U	0.0205 U	0.0173 U	0.0105 U	0.0201 U	0.00616 U	0.0134 U	0.00847 U	0.0411 U	0.0120 U	0.0125 U	0.0199 U	0.0773 U	0.0339 U	0.0205 U
PLB	GS-PLB23	3	12/5/2017	mg/kg	0.00779 U	0.087 U	0.0217 U	0.0183 U	0.0111 U	0.0213 U	0.00653 U	0.0142 U	0.00898 U	0.0435 U	0.0127 U	0.0132 U	0.0211 U	0.0819 U	0.036 U	0.0217 U
PLB	GS-PLB24	3	12/5/2017	mg/kg	0.00741 U	0.0828 U	0.0207 U	0.0174 U	0.0106 U	0.0203 U	0.00621 U	0.0135 U	0.00854 U	0.0414 U	0.0121 U	0.0126 U	0.0201 U	0.0779 U	0.0342 U	0.0207 U
PLB	GS-PLB25	3	12/5/2017	mg/kg	0.00728 U	0.0813 U	0.0203 U	0.0171 U	0.0104 U	0.0199 U	0.0061 U	0.0133 U	0.00839 U	0.0407 U	0.0119 U	0.0123 U	0.0197 U	0.0765 U	0.0336 U	0.0203 U

See last page for notes.

TABLE 5-2

Laboratory Analytical Results for Confirmation Samples--VOCs Only

APS Former Grant Street Yard MGP Site, Phoenix, Arizona

Location	Sample ID	Sample Depth (ft bgs)[1]	Sample Date	Units[2]	1,1,1,2-Tetrachloroethane	1,1,1-Trichloroethane	1,1,2,2-Tetrachloroethane	1,1,2-Trichloroethane	1,1-Dichloroethane	1,1-Dichloroethene	1,1-Dichloropropene	1,2,3-Trichlorobenzene	1,2,3-Trichloropropane	1,2,4-Trichlorobenzene	1,2,4-Trimethylbenzene	1,2-Dichloroethane	1,2-Dichlorobenzene	1,2-Dibromo-3-Chloropropane	1,2-Dibromoethane	1,2-Dichloropropane	1,3,5-Trimethylbenzene	1,3-Dichlorobenzene	1,3-Dichloropropane
Residential Soil Remediation Level[3,4]				**mg/kg**	**3.2**	**1200**	**0.42**	**0.74**	**510**	**120**	**NE**	**NE**	**0.005**	**62**	**52**	**0.28**	**600**	**0.53**	**0.029**	**0.34**	**21**	**530**	**100**
Non-Residential Soil Remediation Level[5]				**mg/kg**	**73**	**1200**	**9.3**	**16**	**1700**	**410**	**NE[7]**	**NE**	**0.11**	**220**	**170**	**6**	**600**	**6.5**	**0.63**	**7.4**	**70**	**600**	**360**
Groundwater Protection Level[6]				**mg/kg**	**NE**	**1.0**	**NE**	**NE**	**NE**	**0.81**	**NE**	**NE**	**NE**	**NE**	**720**	**0.21**	**72**	**0.015**	**NE**	**0.28**	**NE**	**NE**	**NE**

Notes:

1. ft bgs = feet below ground surface
2. mg/kg = milligram(s) per kilogram
3. PLB = Grant Street piping trench bottom sample
4. Detection limits in some samples for benzene were above the Soil Remediation Level (SRL) and/or Groundwater Protection Level (GPL) due to required dilutions at the analytical laboratory.
5. Residential SRLs represent the lowest available residential SRL.
6. Cells highlighted in yellow indicate that the compound exceeded the 2007 residential SRL.
7. Cells highlighted in red indicate the compound exceeded the 2007 non-residential SRL.
8. Cells highlighted in blue indicate the compound exceeded the GPL.
9. U = Analyte was not detected at the specified detection limit.
   UJ = Analyte was not detected, and the specified detection limit might not be accurate or precise.
   J = Analyte is present but the reported value might not be accurate or precise (estimate).
   R = The data are unusable due to deficiencies in the ability to analyze the sample and meet QC criteria.
10. Only compounds that were detected in at last one sample and all BTEX compounds are included in this table.
11. Detected results are bolded.

See last page for notes.

TABLE 5-3

Statistical Analysis for Decision Units

APS Grant Street Former MGP Site, Phoenix, Arizona

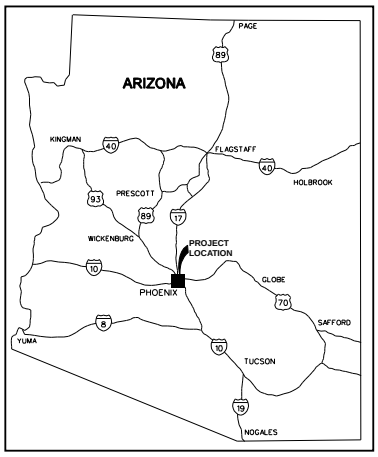
Decision Unit	Units	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)Anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-c,d)Pyrene	Naphthalene	Phenanthrene	Pyrene	Benzene	Xylenes	Ethylbenze	Toluene	1, 2, 4-Trimethylbenzene
	SRL[1]	**3,700**	**NE**	**22,000**	**6.9**	**0.69**	**6.9**	**NE**	**69**	**680**	**0.69**	**2,300**	**2,700**	**6.9**	**56**	**NE**	**2,300**	**0.65**	**270**	**400**	**650**	**52**
		Contaminant Exposure Point Concentration (EPC)[2,3]																				
DU-1S	**mg/kg**	0.000833	0.000833	0.000833	0.00146	0.000833	0.00357	0.000833	0.000833	0.00189	0.000833	0.000833	0.000833	0.000833	0.000833	0.000833	0.000833	-	-	-	-	-
DU-1B	**mg/kg**	0.00177	0.00929	0.00172	0.00255	0.00372	0.00544	0.00543	0.00132	0.00406	0.000834	0.011	0.00173	0.0032	0.0016	0.00753	0.0119	-	-	-	-	-
DU-2S	**mg/kg**	0.00363	0.000834	0.00418	0.0109	0.0149	0.019	0.0112	0.00812	0.0126	0.000997	0.0223	0.0025	0.00853	0.00444	0.0204	0.0201	-	-	-	-	-
DU-2B	**mg/kg**	0.00417	0.0995	0.0211	0.0551	0.144	0.129	0.204	0.0407	0.076	0.0154	0.24	0.00417	0.117	0.00861	0.0513	0.47	-	-	-	-	-
DU-3S	**mg/kg**	0.00553	0.0705	0.0413	0.0452	0.0695	0.0589	0.0655	0.0316	0.0443	0.0122	0.112	0.0378	0.0418	0.00155	0.204	0.19	-	-	-	-	-
DU-3B	**mg/kg**	0.00104	0.0122	0.00597	0.00563	0.0119	0.0117	0.0157	0.00804	0.00756	0.00292	0.016	0.00449	0.00913	0.00548	0.0185	0.0249	-	-	-	-	-
DU-4B	**mg/kg**	0.00608	0.0574	0.0251	0.0121	0.0624	0.0499	0.103	0.0106	0.0134	0.00984	0.0297	0.00617	0.0567	0.00247	0.0401	0.0526	0.011	0.0229	0.0097	0.0344	0.011
DU-5S	**mg/kg**	0.000834	0.000834	0.000834	0.00276	0.00179	0.00264	0.000834	0.00112	0.00242	0.000834	0.00418	0.000834	0.000834	0.000834	0.00132	0.00352	-	-	-	-	-
DU-5B	**mg/kg**	0.000834	0.00392	0.00302	0.0146	0.0293	0.0418	0.0438	0.0109	0.0202	0.0045	0.0369	0.00151	0.0291	0.00277	0.0195	0.0463	-	-	-	-	-
DU-6B	**mg/kg**	0.0199	0.163	0.108	0.114	0.219	0.0906	0.52	0.058	0.13	0.0378	0.121	0.0557	0.334	0.00466	0.405	0.863	-	-	-	-	-
DU-7S	**mg/kg**	0.00571	0.00571	0.00571	0.00603	0.00719	0.00736	0.0857	0.00604	0.00625	0.00571	0.00687	0.00571	0.00758	0.00571	0.00571	0.00798	-	-	-	-	-
DU-7B	**mg/kg**	0.00083	0.00083	0.00083	0.00083	0.00083	0.00089	0.00110	0.00083	0.00083	0.00083	0.00083	0.00083	0.00083	0.00083	0.00083	0.00097	-	-	-	-	-
DU-8S	**mg/kg**	0.00833	0.02217	0.02222	0.174	0.3994	0.436	0.5500	0.08940	0.2132	0.03722	0.448	0.00833	0.371	0.00833	0.16140	0.566	-	-	-	-	-
DU-8B	**mg/kg**	0.00083	0.00083	0.00083	0.00150	0.00188	0.00245	0.00306	0.00083	0.00111	0.00083	0.00229	0.00083	0.00188	0.00083	0.00138	0.00262	-	-	-	-	-
DU-9S	**mg/kg**	0.00097	0.0055	0.00083	0.00177	0.00094	0.00138	0.00103	0.00228	0.00168	0.00218	0.00105	0.00201	0.00127	0.0763	0.00408	0.00109	-	-	-	-	-
DU-9B	**mg/kg**	0.00554	0.0454	0.0235	0.0336	0.0521	0.0501	0.0597	0.01013	0.0298	0.00491	0.0858	0.02220	0.03682	0.02610	0.127	0.125	-	-	-	-	-

Notes:

1. Soil remediation level (SRL) represents a 1 x 10^{-5} risk factor for carcinogens.
2. Backup data and calcuations showing statistical analysis are presented in Appendix O
3. The EPC for each decision unit (DU) was calculated as the 95% upper confidence limit (UCL) of the arithmetic mean concentration using U.S. Environmental Protection Agency's (EPA's) ProUCL Version 5.1 statistical software package (EPA, 2015)

mg/kg = milligram(s) per kilogram

Figures



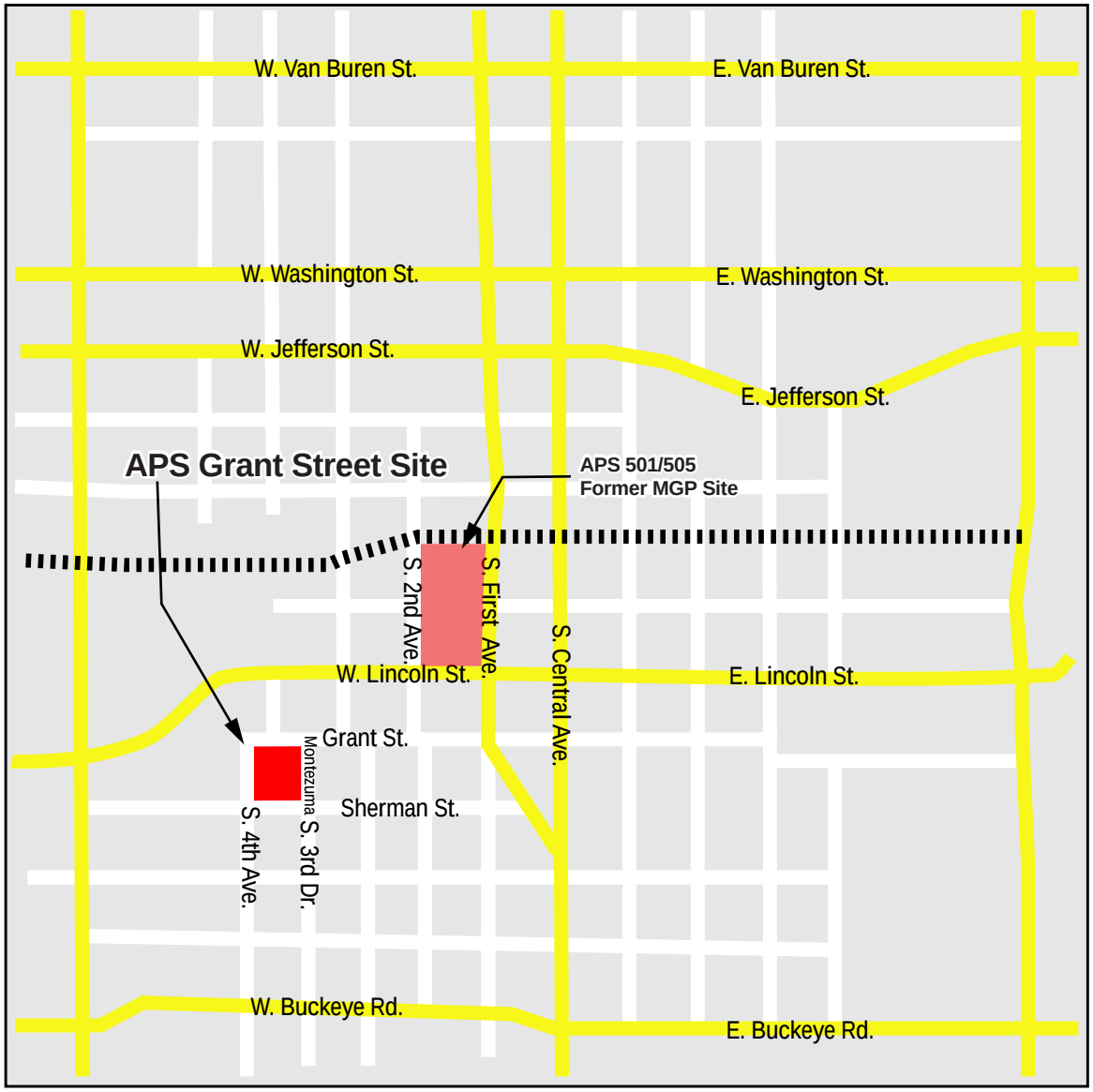
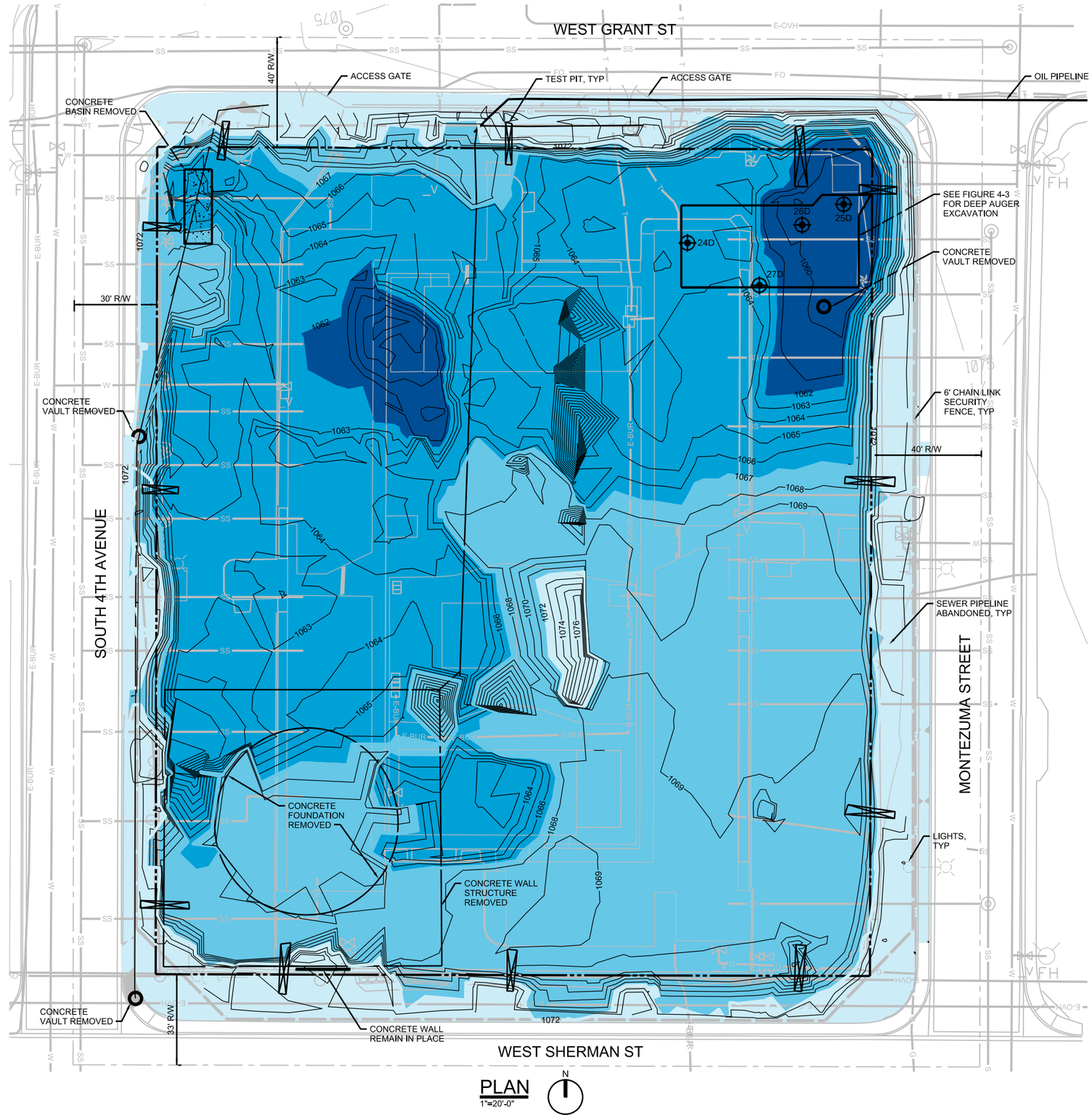


FIGURE 2-1
Site Location Map
No Further Action Request
APS Grant Street Yard Former MGP Site
Phoenix, Arizona



LEGEND:

- TEST PIT LOCATION
- 1-5 FEET EXCAVATION DEPTH
- 5-10 FEET EXCAVATION DEPTH
- 10-15 FEET EXCAVATION DEPTH
- > 15 FEET EXCAVATION DEPTH
- SITE INVESTIGATION BORING

0 20 40 60
1"=20'-0"

FIGURE 3-1
Extent of Excavation at 331 Grant Street
No Further Action Report
APS Grant Street Yard Former MGP Site
Phoenix, Arizona

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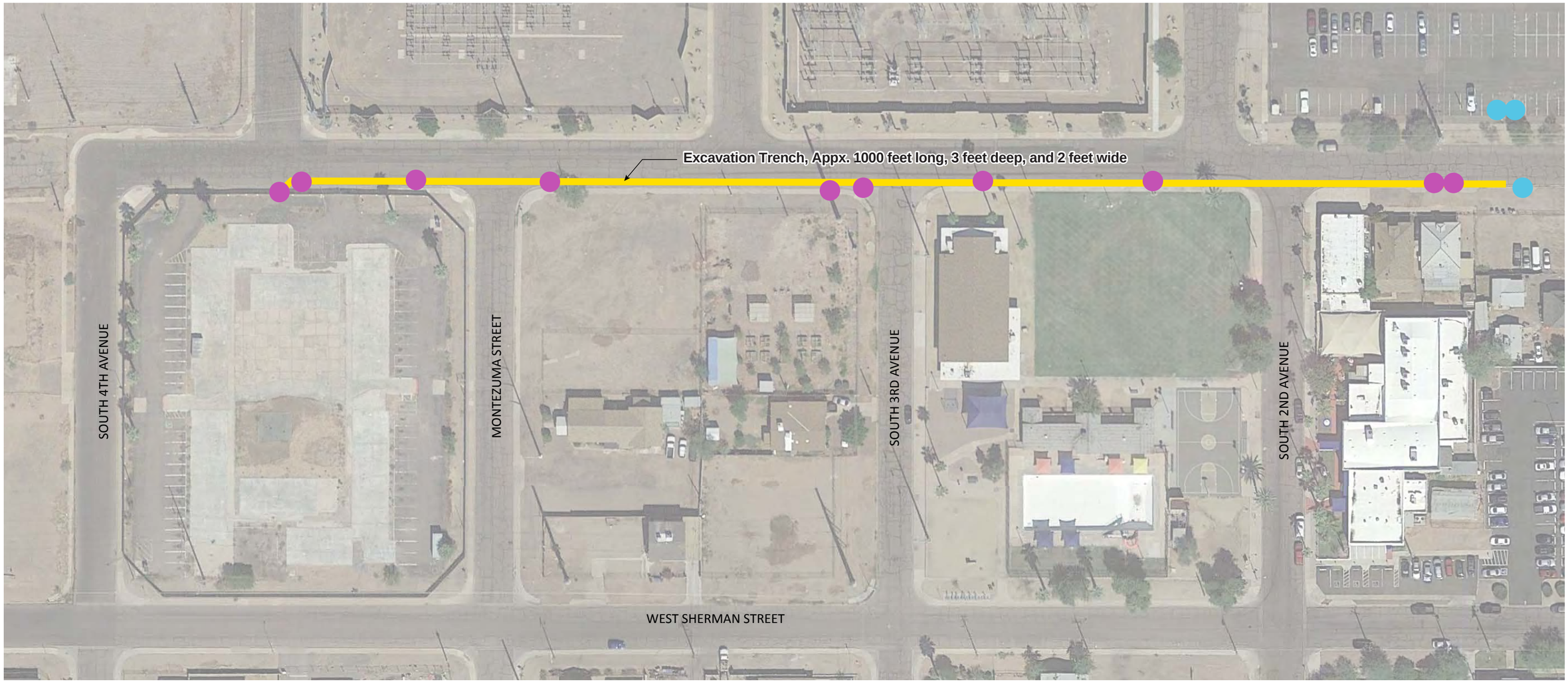


North

0 40 80 120
1"=40'-0"

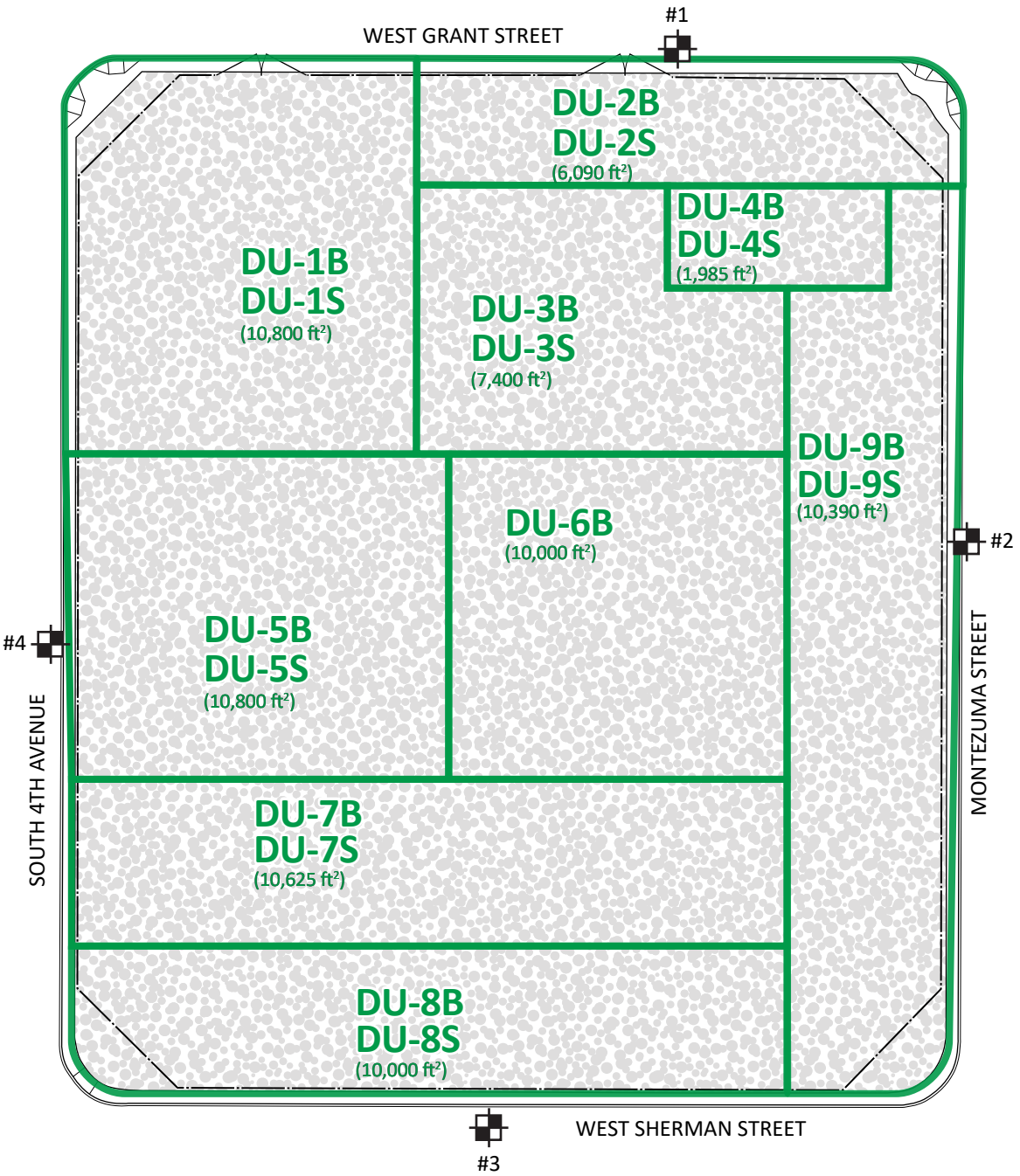
LEGEND

- Potholes (approximately 2-feet deep) where piping was discovered
- Potholes (approximately 3 to 4 feet deep) where piping was not discovered

FIGURE 3-2
Grant Street Pipeline Location and Extent of Excavation
No Further Action Report
APS Grant Street Yard Former MGP Site
Phoenix, Arizona

ch2m

EN0630161136PHX Figure_4-4_RAC_GS_Piping_v4_07-20-18



LEGEND

Air monitoring location

Notes:

1. Decision Unit boundaries not to exceed ¼- acre (10,890 ft²) in area.

DU-1B (Decision Unit 1 bottom)

DU-1S (Decision Unit 1 sidewall)

North

0 25 50

Approximate scale in feet

FIGURE 5-1

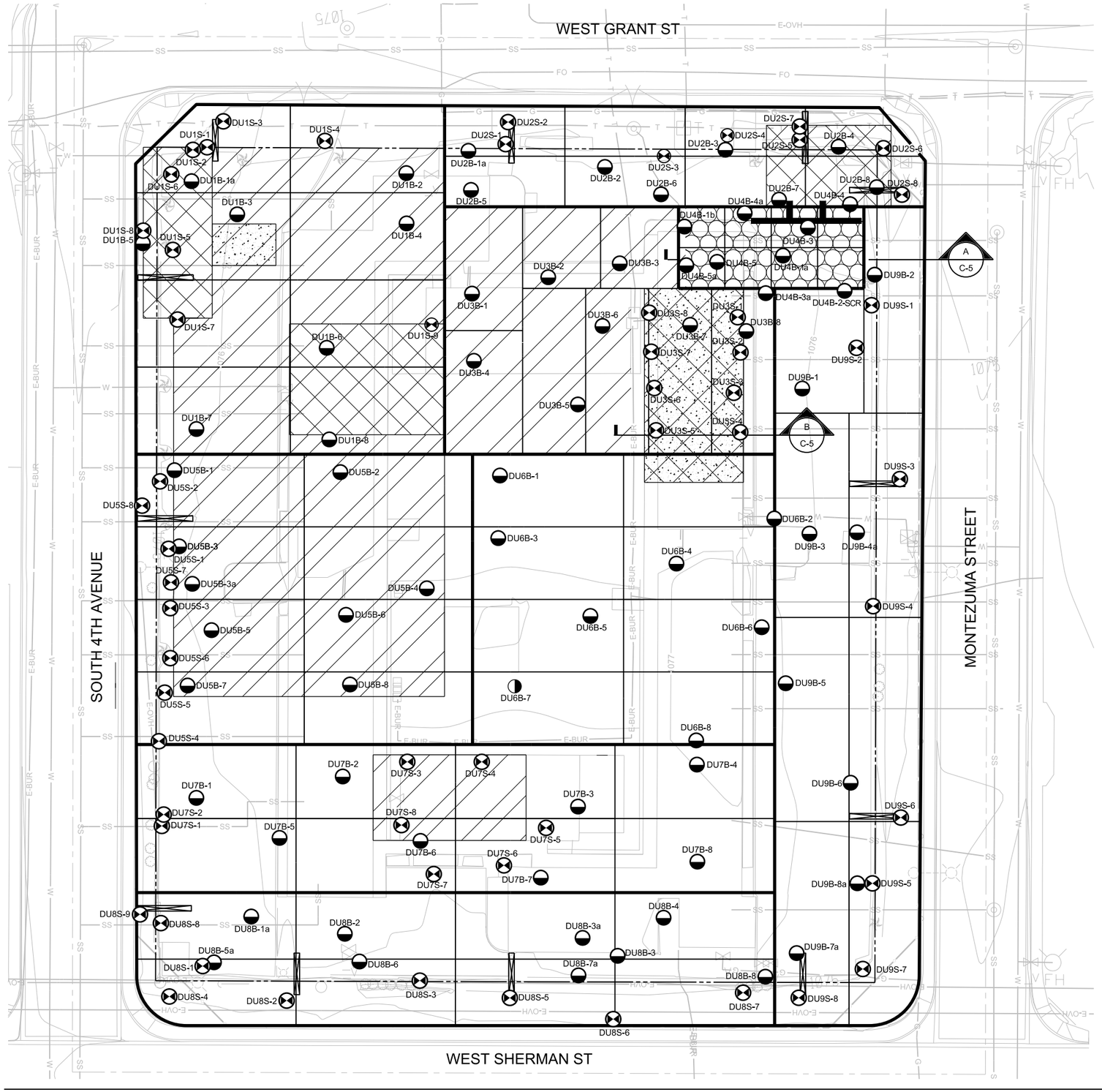
Decision Units

No Further Action Report

APS Grant Street Yard Former MGP Site

Phoenix, Arizona

ch2m



LEGEND:

SEE DRAWING G-2 FOR CIVIL LEGEND AND ABBREVIATIONS.

- APPROXIMATE EXCAVATION AREA UP TO 10 FEET DEEP
- APPROXIMATE EXCAVATION AREA UP TO 20 FEET DEEP
- APPROXIMATE EXCAVATION AREA UP TO 40 FEET DEEP. MATERIAL IN UPPER 10 FEET MAY EXCEED HAZARDOUS WASTE CRITERIA.
- EXCAVATION AREA WITH SOIL POTENTIALLY EXCEEDING HAZARDOUS WASTE CRITERIA
- TEST PIT LOCATION
- SIDEWALL
- **BOTTOM**

PLAN
1"=20'-0"

N

0 20 40 60
1"=20'-0"

FOR REFERENCE ONLY

FIGURE 5-2
Soil Confirmation Sampling Locations
No Further Action Report
APS Grant Street Yard Former MGP Site
Phoenix, Arizona

North

0 40 80 120

1"=40'-0"

FIGURE 5-3
Soil Confirmation Sampling Locations in Grant Street Pipeline Excavation
No Further Action Report
APS Grant Street Yard Former MGP Site Phoenix, Arizona

ch2m

Appendix A
Public Notice Information for NFA

NOTICE OF 30-DAY PUBLIC COMMENT PERIOD
GRANT STREET YARD
VOLUNTARY REMEDIATION PROGRAM SITE
REQUEST FOR CLEAN CLOSURE

APS (Arizona Public Service Company) has submitted a request for a No Further Action (NFA) determination to the Arizona Department of Environmental Quality (ADEQ) Voluntary Remediation Program (VRP) for the APS Grant Street Yard site. The report requests closure for soil remediation of the site and was submitted in accordance with Arizona Revised Statues Section 49-181.

The APS Grant Street Yard VRP site was a former manufactured gas plant located at 331 W. Grant Street in Phoenix, Arizona. Contaminants of concern at the site are a group of compounds commonly known as polynuclear aromatic hydrocarbons.

The NFA Report and the VRP file are available for review at the ADEQ Records Center, 1110 W. Washington St., Phoenix, Arizona (602) 771-2300, or (800) 234-5677, ext. 602-771-2300; please call for hours of operation and to schedule an appointment.

PARTIES WISHING TO SUBMIT WRITTEN COMMENTS regarding the report for the APS Grant Street Yard VRP Site may do so by referencing this listing and submitting their comments to: ADEQ, Attention: Nichole Osuch, Voluntary Remediation Program, 1110 W. Washington St., Phoenix, AZ 85007 or nso@azdeq.gov; or APS, Attention: Judy Heywood, Environmental Department, P.O. Box 53999, MS 9303, Phoenix, AZ 85004 or judith.heywood@aps.com. **Comments must be postmarked or received by ADEQ or APS by Friday, November 30, 2018.**

ADEQ will take reasonable measures to provide department services access to individuals with limited ability to speak, write, or understand English and/or to those with disabilities. Requests for language interpretation, ASL interpretation, CART captioning services or disability accommodations must be made at least 48 hours in advance by contacting Ian Bingham, Title VI Nondiscrimination Coordinator at (602) 771-4322 or idb@azdeq.gov. Teleprinter services are available by calling 7-1-1 at least 48 hours in advance to make necessary arrangements.

ADEQ tomará medidas razonables para proveer acceso a los servicios del departamento para personas con capacidad limitada para hablar, escribir o entender Inglés y / o para las personas con discapacidad. Las solicitudes de servicios de interpretación del lenguaje o de alojamiento de discapacidad deben hacerse por lo menos 48 horas de antelación poniéndose en contacto con Ian Bingham, Title VI Nondiscrimination Coordinator al (602) 771-4322 o idb@azdeq.gov.

Dated this first day of November 2018.

North

0 40 80 120

1"=40'-0"

LEGEND

NFA Request Boundary

No Further Action (NFA) Request Boundary

No Further Action Report
APS Grant Street Yard Former MGP Site
Phoenix, Arizona

ch2m

EN0630161136PHX Figure_XX NFA_RequestBoundary_v2_11-16-18

Mail Station 8508
P.O. Box 53999, Phoenix, AZ 85072

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Phoenix, AZ
Permit No. 90

GRANT STREET REMEDIATION PROJECT
PROYECTO DE DESCONTAMINACIÓN EN GRANT STREET

Neighborhood Update
Lo Más Reciente

FALL 2018, ISSUE NO. 5

FOR MORE INFORMATION

Questions about the VRP or ADEQ closure report comment process can be directed to (602) 771-2300 or (800) 234-5677. All other report inquiries can be directed to:

Judy Heywood
APS Environmental Department
Phone: (602) 818-0259
Email: judith.heywood@aps.com

PARA OBTENER MÁS INFORMACIÓN

Las preguntas acerca de VRP o del proceso de comentarios del reporte final presentado a ADEQ pueden dirigirse al (602) 771-2300 o al (800) 234-5677. Para otras preguntas, comentarios o inquietudes comuníquese con:

Judy Heywood
Departamento de Medioambiente de APS
Teléfono: (602) 818-0259
Email: judith.heywood@aps.com

APS CONCLUDES REMEDIATION WORK AT GRANT STREET PROPERTY

Following excavation of more than 60,000 tons of impacted soil and removal of about 1,000 feet of an abandoned underground pipeline, APS has completed the remediation and clean-up of a former manufactured gas plant (MGP) site on Grant Street in Phoenix.

APS used Arizona Department of Environmental Quality (ADEQ) residential soil remediation levels (SRLs) as the clean-up standard to meet the requirements for a clean closure and unrestrictive future residential or industrial use of the property.

The process, which began more than 30 years ago, reached its conclusion when APS submitted its final report to the Voluntary Remediation Program at the ADEQ with a request for a No Further Action (NFA) determination.

With submission of the NFA request, the community will have 30 days to review and provide comment.

Future use of the property has yet to be determined. It is currently zoned for multi-family residential housing and may need to be rezoned before future development could take place.

REMEDIATION BY THE NUMBERS

This most recent and final phase of MGP remediation work involved using excavators and augers to remove impacted soils to varying depths. The top five feet of soil was removed from the entire site. Several areas were excavated to depths of 20-25 feet. One area, about 30 feet wide and 66 feet long, near the northeast corner of the property required removing soil with a five-foot diameter auger to depths of 40-50 feet.

All removed soil was transported to an appropriately permitted landfill for proper disposal.

During excavation, APS discovered the remainder of an abandoned underground cast iron, six-inch pipeline, running beneath the sidewalk on Grant Street from the property to just east of Second Avenue. The pipeline dated to about 1917 and was used to carry fuel oil from Grant Street to the former MGP located at Second Avenue and Lincoln Street.

Removal of the oil pipeline involved demolition of the existing sidewalk on the south side of Grant Street, excavating soil and extracting the pipeline in segments to minimize road closures. About 1,000 feet of pipeline was removed before replacing the soil and then installing a new sidewalk.

continued on page 2

APS CONCLUYE OBRAS DE DESCONTAMINACIÓN EN LA PROPIEDAD DE GRANT STREET

Después de la excavación de más de 60,000 toneladas de tierra contaminada y del retiro de aproximadamente 1,000 pies de tubería subterránea abandonada, APS ha concluido la descontaminación y limpieza del sitio donde se ubicaba una histórica planta de gas manufacturado (MGP) en Phoenix, sobre Grant Street.

APS utilizó los niveles de recuperación de suelos residenciales (SRL) del Departamento de Calidad Ambiental de Arizona (ADEQ), como la norma para cumplir con los requisitos de un cierre limpio y un futuro uso residencial o industrial no restrictivo de la propiedad.

El proceso, el cual se inició hace más de 30 años, concluyó con la entrega del reporte final de APS al Programa de Descontaminación Voluntaria de ADEQ, con una solicitud para una determinación de No Acción Adicional (NFA).

Con el envío de la solicitud de NFA, la comunidad tendrá 30 días para revisar y proporcionar comentarios.

El uso futuro de esta propiedad todavía no se ha determinado. En la actualidad, está dividida en zonas para viviendas residenciales multifamiliares y es posible que sea necesario volver a zonificar antes de poder realizar un nuevo desarrollo.

LA DESCONTAMINACIÓN EN NÚMEROS

Esta última fase de descontaminación de MGP, involucró el uso de excavadoras y barrenas para retirar la tierra contaminada desde varios niveles de profundidad. Los primeros cinco pies de suelo se eliminaron en todo el sitio. En varias áreas las obras de excavación se realizaron a profundidades de 20 a 25 pies. En un área particular, de aproximadamente 30 pies de ancho y 66 pies de largo, cerca de la esquina noreste de la propiedad, fue necesario remover la tierra con una barrena de cinco pies de diámetro a profundidades de 40 a 50 pies.

Toda la tierra contaminada fue transportada a un vertedero que cuenta con los permisos necesarios para su eliminación adecuada.

Durante las obras de excavación, APS descubrió los restos de una tubería subterránea abandonada. Era de hierro fundido, de seis pulgadas de diámetro y corría debajo de la banqueta de Grant Street, desde la propiedad hasta el este de la calle Second Avenue. La tubería databa de aproximadamente 1917 y se utilizaba para transportar combustóleo, desde Grant Street hasta la antigua planta MGP, ubicada en las calles Second Avenue y Lincoln.

continúa en la pagina 2

During excavation, APS discovered the remainder of an abandoned underground cast iron, six-inch pipeline, running beneath the sidewalk on Grant Street from the property to just east of Second Avenue. About 1,000 feet of pipeline was removed before replacing the soil and then installing a new sidewalk.

Durante la excavación, APS descubrió el resto de un hierro fundido subterráneo abandonado, tubería de seis pulgadas, que corre bajo la acera en la Calle de Subvención de la propiedad a sólo al este de la Segunda Avenida. Aproximadamente 1,000 pies de la tubería fueron quitados antes de sustituir el suelo y luego instalar una nueva acera.

Site work was completed in December 2017 with the placement of 93,000 square feet of landscaping rock atop the clean fill dirt.

Since then, APS has been testing soil samples, analyzing data, and preparing its final report for submission to ADEQ. A total of 179 confirmation soil samples were collected from the excavation to confirm the clean-up levels were achieved at this site.

COMMUNITY INVOLVEMENT INTEGRAL TO PROJECT SUCCESS

APS has worked closely with community members throughout this process and has relied on feedback and collaboration with many stakeholders to successfully clean-up the property.

In this last step to complete closeout of the project, APS is seeking public comment on its final report. The report is available for review at the ADEQ Records Center, 1110 W. Washington St., Phoenix.

ADEQ requests that you call for hours of operation and to schedule an appointment: (602) 771-2300 or (800) 234-5677, ext. 602-771-2300.

continued on page 3

Para retirar esta tubería fue necesaria la demolición de la banqueta del lado sur de Grant Street, la excavación del terreno y la extracción de la tubería en segmentos para minimizar el cierre de calles. Después de retirar los aproximadamente 1,000 pies de tubería, el terreno se rellenó con tierra limpia y se construyó una nueva banqueta.

Las obras en el sitio se completaron en diciembre de 2017 con la colocación de 93,000 pies cuadrados de piedra decorativa sobre la tierra de relleno limpia.

Desde entonces, APS ha estado tomando muestras de suelo para hacer pruebas, analizar datos y preparar su informe final para ADEQ. En total, se recolectaron 179 muestras de tierra de excavación para asegurarse que se lograran los niveles de limpieza adecuados en este sitio.

PARTICIPACIÓN DE LA COMUNIDAD INTEGRAL PARA EL ÉXITO DEL PROYECTO

En todo este proceso, APS ha trabajado en colaboración con miembros de la comunidad y ha tomado en cuenta los comentarios y opiniones de los residentes y partes interesadas para limpiar con éxito la propiedad.

En este último paso, necesario para completar el cierre del proyecto, APS busca los comentarios del público en general sobre su informe final. El reporte está disponible para su revisión en el centro de registros de ADEQ, 1110 W. Washington St., Phoenix.

ADEQ le solicita que llame para conocer el horario de atención y para programar una cita: (602) 771-2300 o (800) 234-5677, ext. 602-771-2300.

continúa en la pagina 3

Following excavation of more than 60,000 tons of impacted soil, APS completed remediation and clean-up of a former manufactured gas plant (MGP) site on Grant Street. Site work was completed in December 2017 with the placement of 93,000 square feet of landscaping rock atop the clean fill dirt.

La excavación de siguiente de más de 60.000 toneladas de suelo afectado, APS terminó el remedio y la limpieza de un sitio manufacturado anterior de la planta de gas (MGP) en Grant Street. El trabajo del sitio fue terminado en diciembre de 2017 con la colocación de 93.000 pies cuadrados de ajardinar la roca encima de la suciedad limpia del terraplén.

COMMITMENT TO PROTECTING HUMAN HEALTH AND THE ENVIRONMENT

This remediation project was completed in multiple phases to balance the needs of the community while protecting human health and the environment.

Early environmental investigations began in the 1980s. An interim remediation was completed at the site in 2003. Remediation work at the adjacent 501 and 505 South Second Avenue APS property was completed in 2013. Final remediation of the Grant Street site in 2017 required relocating residents of the Grant Park Apartments in 2015 and removal of the apartment buildings in 2016.

The process of generating manufactured gas produced by-products such as lampblack, tar and oils. Some materials in MGP by-products may present health or environmental concerns if direct and substantial contact with the residues were to occur. Thus, APS chose to remediate the Grant Street site by excavating and removing impacted soils and replacing it with clean fill dirt.

By using the ADEQ residential soil remediation levels as its clean-up standard, APS is able to submit the property for a clean closure.

COMPROMISO CON LA PROTECCIÓN DE LA SALUD DE LOS HABITANTES Y EL MEDIO AMBIENTE

La conclusión de este proyecto de descontaminación se logró en múltiples fases, que buscaban equilibrar las necesidades de la comunidad y proteger, al mismo tiempo, la salud de los residentes y del medio ambiente.

Las primeras investigaciones ambientales datan de 1980. Una descontaminación provisional se realizó en el sitio en 2003. Otras obras de descontaminación se llevaron a cabo en las propiedades adyacentes de APS, 501 y 505 al sur de Second Avenue y concluyeron en 2013. Para los trabajos de descontaminación final del sitio de Grant Street, fue necesario reubicar a los residentes de Grant Park Apartments, en 2015, y demoler el edificio de departamentos en 2016. El proceso de limpieza se inició en 2017.

El proceso de generación de gas manufacturado producía derivados del petróleo, tales como negro de humo, alquitrán (chapopote) y aceites. Algunos materiales en los productos derivados de MGP pueden ocasionar problemas de salud o ambientales cuando ocurre un contacto directo y sustancial con estos residuos. En consecuencia, APS decidió descontaminar el sitio de Grant Street excavando y retirando la tierra contaminada, misma que se reemplazo con tierra de relleno limpia.

Al utilizar los niveles de recuperación de tierra de ADEQ como su norma de limpieza, APS está en condiciones de entregar una propiedad con un cierre limpio.