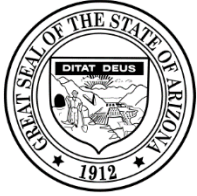


**AHWMA PERMIT DRAFT ADMINISTRATIVE RECORD
PAGE-TROWBRIDGE RANCH LANDFILL
UNIVERSITY OF ARIZONA (UA)
AZD 980 665 814
VOLUME 1**

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9. Response to Comments



Douglas A. Ducey
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



Misael Cabrera
Director

FINAL ADMINISTRATIVE RECORD UNIVERSITY OF ARIZONA, PAGE-TROWBRIDGE RANCH LANDFILL AZD 980 665 814 HAZARDOUS WASTE MANAGEMENT FACILITY POST-CLOSURE CARE PERMIT RENEWAL

Pursuant to the A.A.C. R18-8-271.I (D)(1)(vii), a copy of the Arizona Hazardous Waste Management Act (AHWMA) and federal Resource Conservation and Recovery Act (RCRA) permit application, draft permit, and additional relevant documents must be made available for public review during the public comment period for the above-referenced facility. This collection of documents will be hereinafter referred to as the “Administrative Record.”

The complete Administrative Record includes documents in the University of Arizona, Page-Trowbridge Ranch Landfill correspondence files in Arizona Department of Environmental Quality’s (ADEQ’s) Records Center, as well as numerous other documents generally available to the public through ADEQ or the United States Environmental Protection Agency (U.S. EPA). These documents are either attached (see Section I of this memo) or incorporated by reference (see Section II of this memo).

I. ATTACHED MATERIAL

The information below is either contained in Volume I (relevant information), Volume II (permit application) or Volume III (draft permit):

1. Volume I: This memorandum. It includes important portions of the Administrative Record. The complete Administrative Record may be found at the ADEQ Records Center Office, 1110 West Washington Street, Phoenix, Arizona; Monday through Friday from 8:30 a.m. to 4:30 p.m., excluding state holidays. To arrange an appointment to review this record at ADEQ, contact the ADEQ Records Center at (602) 771-4380 or email recordscenter@azdeq.gov.
2. Volume I: Public Notice of the Draft Permit Renewal
3. Volume I: Fact Sheet for the Draft Permit
4. Volume I: Inspection Reports
 - a. 2019 Inspection Report
 - b. 2020 Inspection Report
 - c. 2021 Inspection Report

Main Office

1110 W. Washington Street • Phoenix, AZ 85007
(602) 771-2300

Southern Regional Office

400 W. Congress Street • Suite 433 • Tucson, AZ 85701
(520) 628-6733

www.azdeq.gov

printed on recycled paper

- d. 2021 Response to Deficiencies Noted During Inspection
5. Volume I: Mailing List
6. Volume I: Correspondence Log
 - a. Letter dated December 17, 2021 from ADEQ to UA “Request for Additional Information; Administratively Incomplete Application”
 - b. Email dated January 5, 2022 from UA to ADEQ “Response to Request for Additional Information”
 - c. Letter dated January 5, 2022 from ADEQ to UA “Administratively Complete Application”
 - d. Letter dated February 17, 2022 from ADEQ to UA “Substantive Notice of Deficiency”
 - e. Email dated March 2, 2022 from UA to ADEQ “Discussion on Substantive Notice of Deficiency”
 - f. Letter dated March 21, 2022 from UA to ADEQ “Response to Notice of Deficiency”
7. Volume I: Notifications to the City of Tucson and Pinal County
8. Volume I: Groundwater Monitoring Reports 2019 to 2021 (available online at <https://azdeq.gov/node/6662> or by request)
9. Volume I: Response to Comments
10. Volume II: University of Arizona, Page-Trowbridge Ranch Landfill AHWMA Hazardous Waste Permit Application
11. Volume III: University of Arizona, Page-Trowbridge Ranch Landfill Final AHWMA Hazardous Waste Permit

II. MATERIAL INCORPORATED BY REFERENCE (MAY INCLUDE MATERIAL READILY AVAILABLE AT ADEQ OR PUBLISHED MATERIAL GENERALLY AVAILABLE AT A LIBRARY OR OTHER SOURCE):

1. Complete Administrative Record – These records may be viewed at ADEQ Records Management, 1110 West Washington Street, Phoenix, Arizona, Monday – Friday from 8:30 a.m. – 4:30 p.m., (excluding state holidays).
2. Arizona Administrative Code, Title 18, Chapter 8, Article 2, A.A.C. R18-8-260 et seq. (Supp 12-2 dated June 30, 2012) with a copy provided in Volume 3, draft Permit Attachment I.
3. Title 40 Code of Federal Regulations (40 CFR) Parts 260 et. Seq (July 1, 2006 edition).
4. Additional documents used in developing the Draft Permit:

- Completed ADEQ Character/Background Reference Check Forms (in ADEQ HWPU Confidential file) for: Miguel Delgado, Jeffrey Christensen, Joe Divijak, and Herbert Wagner. These are the Emergency Coordinators.
- “ADEQ Hazardous Waste Section Quality Assurance Program Plan (Final),” ADEQ, January 12, 2015.
- “Model RCRA Permit for Hazardous Waste Management Facilities (Draft),” U.S. EPA, September 1998.
- Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities NIOSH/OSHA/USCG/EPA-DHHS No. 85-115.
- “RCRA Public Participation Manual,” U.S. EPA, EPA530-R-16-013, 2016.
- EPA/530-SW-84-004 “Permit Applicants’ Guidance Manual for Hazardous Waste Land Treatment, Storage, and Disposal Facilities - Final Draft”
- Other EPA or technical guidance can be made available by request to the site contact below.

For additional resources or clarification on any items, please reach out to Gav Orman at 602-771-8727 or by email at orman.gav@azdeq.gov.

PUBLIC NOTICE

**DRAFT POST-CLOSURE HAZARDOUS WASTE PERMIT
UNIVERSITY OF ARIZONA
PAGE-TROWBRIDGE RANCH LANDFILL
ORACLE/ORACLE JUNCTION, PINAL COUNTY ARIZONA**

The Arizona Department of Environmental Quality (ADEQ) has prepared a draft Post-Closure Hazardous Waste Permit (Draft Permit) for University of Arizona's (UA) Page-Trowbridge Ranch Landfill (PTRL). The Draft Permit requires UA to perform post-closure care at PTRL located north of Highway 77, approximately three miles east of Oracle Junction, seven miles west of Oracle, and 30 miles north of Tucson. This notice announces the 45-day public comment period for the Draft Permit beginning **April 25, 2022** and ending **June 9, 2022**.

The PTRL occupies 3.25 acres and consists of two closed units: Unit A (200 ft by 200 ft) and Unit B (200 ft by 500 ft). Individual cells within the units were approximately 15 ft deep. PTRL was formally used to dispose of chemical waste and low-level radioactive material generated at the UA, Northern Arizona University, Arizona State University, and the Veterans Hospital in Tucson. Chemical wastes largely consisted of solvents, ignitable compounds, acids, bases, heavy metals, and pesticides. The PTRL operated from the early 1960s through 1986 and was closed in 1997.

As part of the closure activities, a final cover system with layers of clay, earth, geo-membrane, and vegetative grass, was constructed over each unit to prevent exposure to stormwater. Culverts and stormwater channels were installed to divert water from the site. The PTRL is surrounded by a six-foot high chain-link fence topped with barbed wire for security. Groundwater and soil vapor are routinely sampled to detect any releases from the PTRL. The Draft Permit renewal will allow UA to continue performing post-closure inspections, maintenance, and semi-annual groundwater and soil vapor monitoring at the PTRL. These actions are in accordance with Arizona rules established to protect human health and the environment. Once issued, the Post-Closure Permit would be effective for another ten years.

A copy of the Fact Sheet is available alongside the Draft Permit by visiting the ADEQ Public Notice Calendar at <https://azdeq.gov/notices> and searching for the keyword "Page-Trowbridge" or by selecting the start date for the public comment period. The last three years of monitoring reports are available at the ADEQ *My Community* webpage for PTRL at <https://azdeq.gov/pt-ranch-landfill>. The complete administrative record is available by contacting the site contact below.

A hard copy of the administrative record containing the permit application, Draft Permit, and inspection reports may be viewed at the ADEQ Phoenix office from 8:30 a.m. to 4:00 p.m., Monday through Friday (excluding state holidays). To arrange an appointment to review this record at ADEQ, contact the ADEQ Records Center at (602) 771-4380.

ADEQ invites all interested parties to submit written comments concerning the Draft Permit. **All comments must be submitted to ADEQ and post-marked by the close of the public comment period, June 9, 2022. Submit your comments to:**

Gav Orman, Hazardous Waste Permit Writer
ADEQ – Hazardous Waste Permits and Support Unit
1110 West Washington St.,
Phoenix, AZ 85007
Phone: (602) 771-8727
Email: hazwastepermits@azdeq.gov

In addition to submitting public comments, any person may request the ADEQ Director to schedule a public hearing. **Written requests for a public hearing must be submitted to ADEQ by no later than June 9, 2022**, and must state the nature of the proposed issues to raise in the hearing. The Director will hold such a hearing if: 1) they find, on the basis of requests, a significant degree of public interest in the Draft Permit, or 2) they find that the hearing might clarify any issues involved in the permit decision, or 3) a formal written notice of opposition to the Draft Permit is received within the comment period.

Please share this notice with anyone who may be interested in the Draft Permit.



Figure 1: Location of PTRL

ADEQ will take reasonable measures to provide access to department services 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 Len Drago, Title VI Nondiscrimination Coordinator at 602-771-2288 or Drago.Leonard@azdeq.gov. Teleprinter services are available by calling 7-1-1 at least 48 hours in advance to make necessary arrangements.

ADEQ tomará las medidas razonables para proveer acceso a los servicios del departamento a personas con capacidad limitada para hablar, escribir o entender inglés y / o para personas con discapacidades. Las solicitudes de servicios de interpretación de idiomas, interpretación ASL, subtítulos de CART, o adaptaciones por discapacidad deben realizarse con al menos 48 horas de anticipación contactando a Ian Bingham, Coordinador de Anti-Discriminación del Título VI al 602-771-2288 o Drago.Leonard@azdeq.gov. Los servicios de teleimpresores están disponibles llamando al 7-1-1 con al menos 48 horas de anticipación para hacer los arreglos necesarios.

FACT SHEET

**DRAFT PERMIT RENEWAL FOR POST-CLOSURE CARE
PAGE-TROWBRIDGE RANCH LANDFILL, UNINVERSTY OF ARIZONA
ORACLE/ORACLE JUNCTION AREA
PINAL COUNTY, ARIZONA
EPA ID. NO. AZD 980 665 814**

This fact sheet was prepared in accordance with Arizona Administrative Code (A.A.C) R18-8-271.E(e) and R18-8-271.G. A fact sheet must accompany every Arizona Hazardous Waste Management Act (AHWMA) draft permit that the Arizona Department of Environmental Quality (ADEQ) has prepared. All references to the A.A.C. hereafter refer to the A.A.C. R18-8-260 et. seq., made effective on December 30, 2020, which incorporates and/or modifies parts of Title 40 Code of Federal Regulations (CFR) Parts 260 et. seq.

ADEQ has prepared a draft AHWMA Permit (Draft Permit) for the University of Arizona's (UA) post-closure care of the Page-Trowbridge Ranch Landfill (PTRL). This Draft Permit allows UA to continue post-closure care for PTRL located north of Highway 77, approximately seven miles west of Oracle, and 30 miles north of Tucson.

FACILITY OVERVIEW

PTRL's site location map is shown in Figure 1. The PTRL is located in Township 9 South, Range 14 East, Gila and Salt River Base and Meridian, and includes the southern half of Section 27 and the northern half of Section 34. Land to the north and northeast of the PTRL is owned by the State of Arizona and is used as open range grazing land. Land to the north, northwest, and east is owned by UA and used for agricultural research. Property to the southwest, south, and southeast is owned by Robson Ranch Mountains, L.L.C., for residential development. There are currently 1,165 homes and a clubhouse constructed in the Saddlebrooke Ranch Community.

The PTRL occupies a total of 3.25 acres and consists of two units: Unit A (northern unit, 200 ft by 200 ft) and Unit B (southern unit, 200 ft wide by 500 ft long) as shown in Figure 2. The individual cells within the units were approximately 15 ft deep. PTRL was formally used to dispose of chemical waste and low-level radioactive material generated at UA, Northern Arizona University, Arizona State University, and the Veterans Hospital in Tucson from the early 1960s to 1986. Chemical wastes primarily consisted of solvents, ignitable materials, acids, bases, heavy metals, and pesticides. The PTRL was closed in 1997 after the installation of a final cover system.

The final cover system was constructed over each unit to prevent percolation through the landfill and includes a final earthen cover that supports native vegetation. PTRL is surrounded by a six-foot tall chain-link fence topped with barbed wire for security. Culverts and stormwater channels were installed to divert water from the surface of the landfill. PTRL is not located in a 100-year flood plain nor in a seismic area.

A solar-powered soil vapor extraction (SVE) system was installed at PTRL and has been operating since June 2006 between Unit A and B (Figure 2). The SVE system includes a network of soil vapor monitoring points that can detect potential releases from the landfill units. If a release is detected by the SVE system, actions will be taken in advance of any contaminant reaching groundwater (found approximately 645 ft below ground surface (bgs)). Soil vapor is extracted from one well (SGS-Well) at a rate of approximately 85 ft³/min and at a depth of 98 to 255 ft bgs. The extracted soil vapor is then directed through an activated carbon treatment system to remove volatile organic compounds (VOCs). The activated carbon treatment system consists of two, 2,000-pound units. The system is monitored weekly to ensure proper operation and samples are taken monthly to check for breakthrough of the activated carbon. These samples are used to determine when the activated carbon needs to be replaced and to monitor the mass removal VOCs from the subsurface. Simultaneously, ambient air is injected into the soil through another well (SGD-Well) at a rate of approximately 40 ft³/min and at a depth of 435 to 605 ft bgs. The SVE system is shown in Figure 3.

In addition to the soil vapor wells (SGS-Well and SGD-Well), there are four soil vapor monitoring points used to monitor VOCs. These points (SGS-SP, SGD-SP, SGD-MP, and SGD-DP) monitor soil vapor at depths from 76 to 600 ft bgs. Additionally, PTRL has four active groundwater wells used to monitor chemical and radionuclide contaminants (MW-2, MW-3, MW-4, and MW-5). The groundwater monitoring wells reach a depth of approximately 800 ft bgs. For sample collection, a submersible pump is installed in each groundwater well, with power supplied by a generator during sampling. MW-2 and MW-5 are also utilized for soil vapor monitoring with monitoring points that extend to the groundwater table via inflatable packers. The groundwater monitoring wells and soil vapor monitoring points are within the fenced enclosure surrounding the PTRL and have protective steel casings with locking well head covers (Figure 4). A well construction drawing of MW-2 is shown in Figure 5. Groundwater and soil vapor monitoring is conducted semi-annually.

PTRL periodically generates waste in the form of granular activated carbon that is removed from the SVE treatment vessels. This carbon is sent off-site for regeneration. Condensate from the SVE system is managed appropriately in accordance with applicable regulations.

BRIEF SITE HISTORY

In 1962, UA began disposing of low-level radioactive waste in Unit B after receiving and maintaining approval from the Arizona Atomic Energy Commission. Mixed waste, containing hazardous chemical and low-level radioactive waste, was disposed in Unit B starting in the late 1960s until 1986. Unit B was initially used as an open neutralization and burn pit, but was subsequently used to bury 1- and 5-gallon containers (bottles, cans, boxes, and bags) and 55-gallon drums (lab packs) in unlined cells. The quantity of waste disposed in Unit B prior to 1978 is unknown because recordkeeping did not start until then.

In 1982, Unit A was designed and constructed for hazardous chemical waste disposal only in accordance with Resource Conservation and Recovery Act (RCRA) standards at the time. Unit A was used to dispose of plastic liner sealed 55-gallon drums (DOT 17C) in cells lined with a chemically resistant synthetic liner until 1986. The quantity of materials disposed at PTRL

decreased in mid-1983 due to the construction of incineration and neutralization facilities at UA, meaning that less than half of Unit A's capacity was utilized. Based on manifests and UA disposal records, 280 tons of hazardous waste were disposed in Unit A and Unit B between the late 1960s and 1986. An additional 312 tons of radioactive wastes were disposed of in Unit B between 1962 and 1986. This inventory does not include any undocumented radioactive or chemical wastes. No waste has been disposed on-site since 1986.

PTRL was closed in 1997. Closure activities included the construction of a final cover over both units, security fencing, and stormwater run-on and run-off controls. In December 1997, UA submitted their first post-closure application to ADEQ. ADEQ issued the final post-closure permit for UA under RCRA and AHWMA in November 2001.

The first four groundwater monitoring wells (MW-2, MW-3, MW-4, and MW-1) were installed in 1984 and 1985. MW-1 was replaced by MW-5 in 1990. These wells have shown that groundwater predominately flows southwest, with the groundwater table located approximately 645 ft bgs. Groundwater sampling began in November 1984 and has continued to the present day. This monitoring has not indicated the presence of organic or inorganic contaminants in groundwater.

Soil vapor surveys at PTRL were performed in 1988, 1994, 2003, and 2007 to assess contaminant migration potential. These surveys found that VOCs were present in the pore space immediately surrounding the landfill. However, VOC concentrations decrease substantially with increased distance from the landfill units. VOCs are present in shallow soils with higher concentrations found along the western and southern perimeter of the landfill. VOCs were not detected in soil samples deeper than 140 ft bgs and no analytes have been detected deeper than 190 ft bgs.

In June 2006, the SVE system was installed as a corrective action interim measure. The SVE system continues to operate and monitor VOC removal from the subsurface. Sampling from SVE monitoring wells and the system indicates that VOC concentrations are decreasing with time. A human health risk assessment was conducted in 2009. This assessment included a registered well survey, analysis of the risk of contaminate migration based on quantitative risk characterization, and developed a human health risk exposure model for PTRL. The results of this assessment show that the contamination at PTRL does not pose a non-carcinogenic nor an unacceptable cancer risk to people at or around the landfill site. The assessment recommended the continuation of on-site monitoring for soil vapor and groundwater. In July 2011, UA submitted their renewal post-closure permit application, and ADEQ issued the current final post-closure permit in June 2012.

PTRL is currently undergoing the renewal of the Permit in accordance with A.A.C R18-8-264.A (40 CFR §264.117) and A.A.C R18-8-270.A (40 CFR §270.50), but remains under the existing Permit's purview pending the renewal's issuance.

PERMIT DESCRIPTION AND STATEMENT OF BASIS

The Draft Permit prepared by ADEQ consists of four parts (I through IV) and nine attachments (A through I). The Draft Permit requires UA to maintain the PTRL for up to 30 years, or until it is demonstrated that the hazardous waste is removed from the site and that conditions at and surrounding the site are protective of human health and the environment. UA submitted the initial renewal permit application in December 2021.

Part I of the permit contains general permit conditions. These conditions include definitions, permit actions, duties and requirements, confidentiality, document maintenance, and modifications. These conditions are required by A.A.C R18-8-270.A (40 CFR §270.30 and 40 CFR §270.32).

Part II of the permit contains general, post-closure facility conditions. These conditions include maintenance and operation, security, general inspections, contingency plan, recordkeeping and reporting, and any schedules of compliance that may be required. These permit conditions are required by A.A.C R18-8-264.A (40 CFR §264), R18-8-270.A (40 CFR §270), the omnibus requirements of R18-8-270.A and N (40 CFR §270.32(b)) (Omnibus), and R18-8-270.A (40 CFR §270.33) (Schedule of Compliance or SOC). The permit contains four SOC permit conditions:

- Within thirty days (30) of permit issuance, UA must submit a scope of work and project timeline to update the PTRL's Human Health Risk Assessment (HHRA Project) as a Class 1 Permit Modification Request requiring Director Approval.
- Within thirty days (30) of approval of the scope of work and project timeline, UA must submit the HHRA Project's workplans and methods for ADEQ's review and approval as a Class 1 Permit Modification requiring Director approval.
- Within ninety days (90) of completion of the HHRA project work, UA must submit a draft HHRA report for ADEQ's review and approval as a Class 1 Permit Modification requiring Director approval.
- Within fourteen days (14) of approval of the draft HHRA report, UA must submit a final, certified, HHRA report.

Part III of the permit contains specific conditions for groundwater and soil vapor monitoring. These conditions include the detection monitoring plan, well locations, groundwater and soil vapor sampling and analysis, and reporting and recordkeeping. These conditions are authorized by A.A.C R18-8-264.A (40 CFR Subpart F). Generally, the monitoring requirements include:

- Groundwater samples will be collected from four on-site groundwater monitoring wells, semi-annually, and analyzed for VOCs (EPA Method 524.2 and 504.1), sVOCs (EPA Method 8270C), organochlorine pesticides (EPA Method 8081), and inorganic constituents, Manganese and Sodium (EPA Method 200.7), Chloride and Sulfate (EPA

Method 300.0). Samples will also be analyzed for radionuclides including gross alpha (EPA Method 900.0), tritium and carbon (EPA Method 906).

- Soil vapor samples will be collected from six on-site soil vapor monitoring points and two retrofitted groundwater monitoring wells, semi-annually and analyzed for VOCs (TO-15). When the SVE system is operating, samples will be collected monthly to monitor performance.
- Additionally, field measurements will include depth to groundwater, pH, temperature, specific conductance, and visual appearance for groundwater.
- Quality control methods include field duplicates, field blanks, and trip blanks for groundwater and soil vapor. If an exceedance of the alert levels (as stated in the detection monitoring plan) occurs, actions may include resampling, increased monitoring frequency, and analysis of statistical significance. If the exceedance is valid, UA will submit a permit modification to establish a compliance monitoring program.

Part IV of the permit contains conditions regarding corrective action. Particularly, the conditions include discussion of past corrective action projects and general conditions that may apply in the future. Corrective action is authorized by Arizona Revised Statutes (A.R.S) §49-922.B and Section 3004(u) of RCRA, as amended by the Hazardous and Solid Waste Amendments. Regulatory basis for corrective action can be found in A.A.C R18-8-264.A (40 CFR Subpart F) and via Omnibus conditions.

The above permit parts refer to the following permit attachments:

- Attachment A – Facility Description
- Attachment B – Post-Closure Plan
- Attachment C – Procedures to Prevent Hazards
- Attachment D – Contingency Plan
- Attachment E – Soil Vapor Extraction Operation and Maintenance
- Attachment F – Groundwater and Soil Vapor Monitoring
- Attachment G – Quality Assurance Project Plan
- Attachment H – CASOC Approved Workplans, Reports [Reserved]
- Attachment I – Arizona Administrative Code

The term of the permit is ten (10) years. After 10 years, UA may submit a renewal permit application to continue post-closure care of PTRL.

APPLICANT REQUESTED VARIANCES

No variances have been requested by the applicant.

PUBLIC PARTICIPATION AND PROCEDURES FOR REACHING FINAL DECISION

The administrative record for the Draft Permit contains the permit application, Draft Permit, and adjacent data and information (such as inspection reports). The last three years of monitoring

reports are available for public review on the ADEQ *My Community* page for PTRL at <https://www.azdeq.gov/node/4901>. A copy of the complete administrative record is available for public review Monday through Friday (excluding state holidays) from 8:30 a.m. to 4:30 p.m. at:

Arizona Department of Environmental Quality
Records Management Center
1110 West Washington Street, 1st Floor
Phoenix, Arizona 85007
To make an appointment call: (602) 771-4380 or visit
<http://www.azdeq.gov/records-center>

The Draft Permit and supporting documents can be viewed during the public comment period, found on the Public Notice Calendar at <http://www.azdeq.gov/notices> using keyword search “Page-Trowbridge” or by selecting the start date for the public comment period.

As required by A.A.C R18-8-271(L) and 40 CFR §124.13, all persons, including applicants, who believe any condition of the Draft Permit or that the tentative decision to prepare and issue this Draft Permit is inappropriate, must raise all reasonable issues and submit all reasonably available arguments and supporting materials by the close of the public comment period. All comments submitted during the public comment period shall discuss and be relevant to the appropriateness of the Draft Permit and the conditions contained within.

The 45-day public comment period commences on April 25, 2022. During the public comment period, any interested person may submit written comments on the Draft Permit (via mail or e-mail). These comments and any supporting materials must be submitted to ADEQ by the last day of the public comment period, **June 9, 2022**, at:

Arizona Department of Environmental Quality
Gav Orman, Permit Writer
ADEQ Waste Permits and Support Unit
1110 West Washington Street,
Phoenix, Arizona 85007
Phone: (602) 771-8727
Email: hazwastepermits@azdeq.gov

All written comments delivered or postmarked by the last day of the public comment period will be considered in ADEQ’s final determination regarding the Draft Permit. After all comments have been considered, a final permit decision will be made by the Director. The applicant, each person who has submitted written or oral comments, and each person who has so requested, will receive a notice of this final permit decision. This notice shall reference procedures for appealing a decision on the Draft Permit. The final permit decision shall become effective on the date specified in the final permit notice.

At the time that the final decision is made, the Director shall also issue a response to any significant comments. The response to comments shall consider all items as specified in A.A.C R18-8-271.O and 40 CFR §124.17. The response to comments shall be made available to the public for review. Any person who desires to be placed on the mailing list for all future

permitting activities for this facility may request so in writing to the above address or email pursuant to A.A.C. R18-8-271.I(c)(1)(ix) and 40 CFR §124.10(c)(1)(ix)(a).

In addition to submitting public comments, any person may request the Director to schedule a public hearing. **Written requests for a public hearing must be submitted to ADEQ by no later than the closing of the public comment period, June 9, 2022, and must state the nature of the issues proposed to be raised in the hearing.**

The Director will hold this hearing if:

1. They find, on the basis of requests, a significant degree of public interest in the Draft Permit, or
2. They find that the hearing might clarify one or more issues involved in the permit decision, or
3. A formal written notice of opposition to the Draft Permit is received within the comment period.

PERSONS TO CONTACT FOR ADDITIONAL INFORMATION

For additional information, please contact:

Gav Orman, Permit Writer
ADEQ Waste Permits and Support Unit
1110 West Washington Street,
Phoenix, Arizona 85007
Phone: (602) 771-8727
Direct Email: orman.gav@azdeq.gov
General Email: hazwastepermits@azdeq.gov

Figure 1: Site Location Map



Figure 2: Site Map

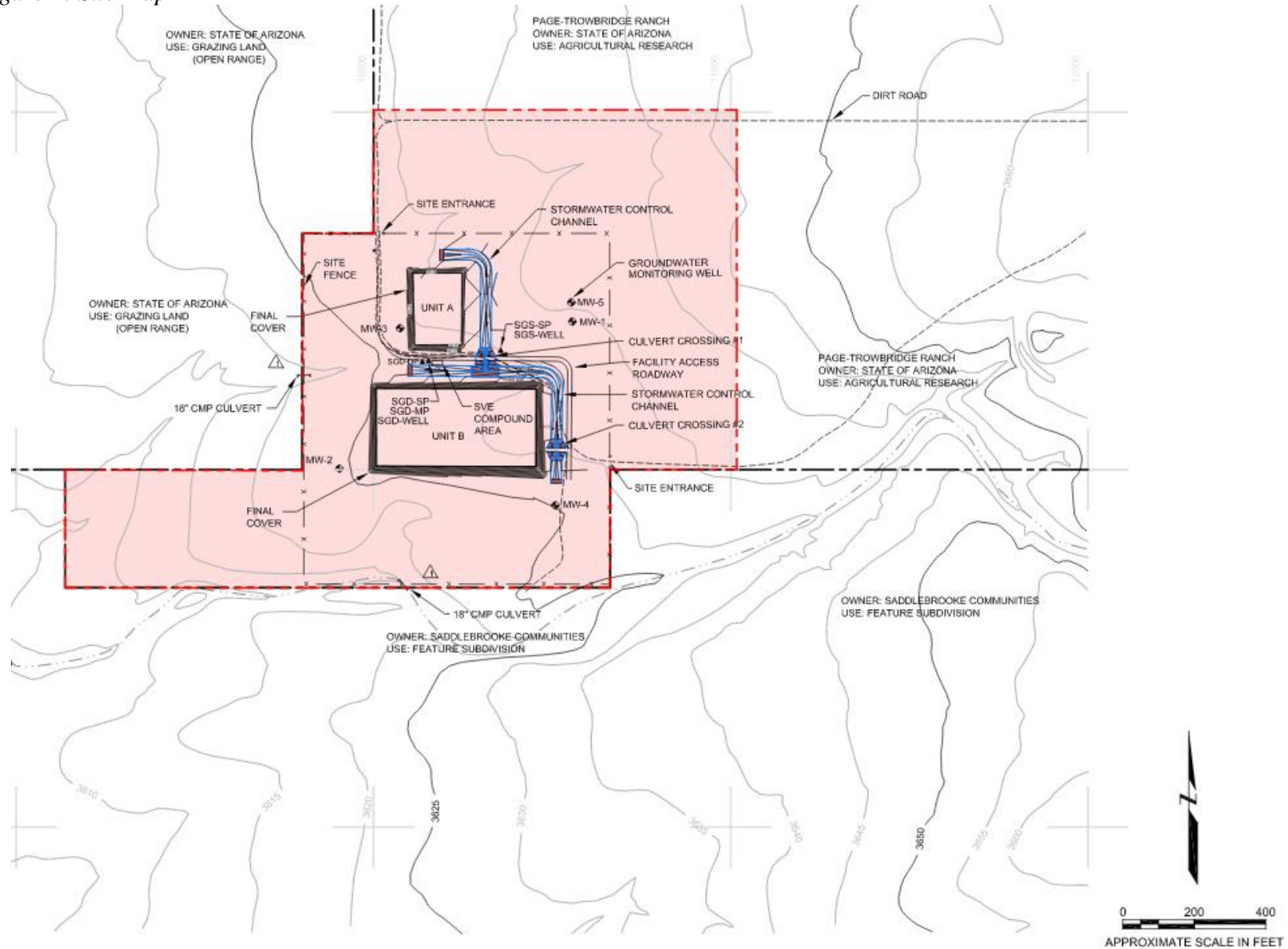


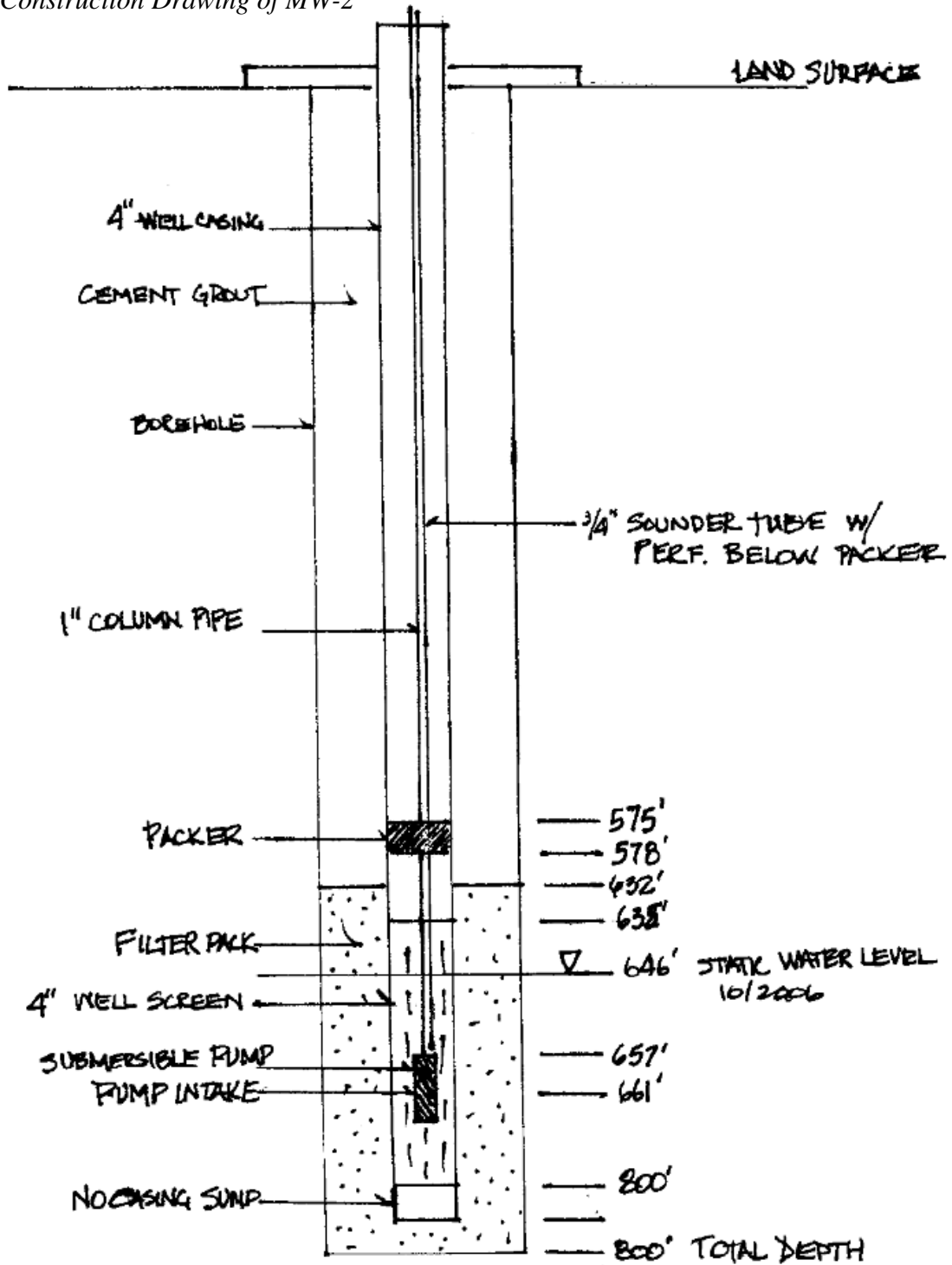
Figure 3: Picture of SVE System



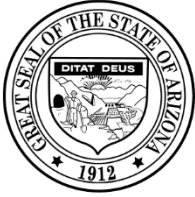
Figure 4: Picture of Well Casings (SGD-DP top and MW-2 bottom)



Figure 5: Construction Drawing of MW-2



INSPECTION REPORTS 2019 TO 2021



Douglas A. Ducey
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



Misael Cabrera
Director

Hazardous Waste Inspection Report Cover Page

Company Name: University of Arizona – Department of Risk Management	Inspection Report ID No.: 321411
Place Name: Page-Trowbridge Ranch Landfill Place ID No.: 3166	Lead Inspector: Mario Barrios
County: Pinal	Arrival Date and Time: 4/17/2019 9:00 AM
Physical Location: Pinal County Sec 27-33, T9S, R14E, Oracle Junction, AZ 85721-0300	Reason for Inspection: <input checked="" type="checkbox"/> Routine Inspection <input type="checkbox"/> Follow-Up <input type="checkbox"/> Complaint Complaint No.: Click here to enter text. <input type="checkbox"/> Other: Click here to enter text.
Mailing Address: PO Box 210300 #Risk Management Service, Tucson, AZ 85721	
Operator Person/Title: Jeffery Christensen , EHS Manager Phone No.: (520) 349-2187 Email: jgchrist@email.arizona.edu	
Business Owner: University of Arizona Phone No.: (520) 621-1790 E-mail: rms-risk@email.arizona.edu	Announced Inspection: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Land Owner: University of Arizona Mailing Address: PO Box 210300 Tucson, AZ 85721	
Results of Inspection: <input type="checkbox"/> No deficiencies were noted during the course of the inspection. No ADEQ action will result from this inspection. <input checked="" type="checkbox"/> Follow-up action is needed; please submit the requested documentation, which is detailed on the inspection report. <input checked="" type="checkbox"/> Potential deficiencies were noted during the course of the inspection. Additional correspondence regarding this Inspection may be forthcoming.	
Attachments: Notice of Inspection Rights Small Business Bill of Rights Inspection Checklist Photographic Log Exit Debriefing	



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY NOTICE OF INSPECTION RIGHTS

FACILITY INFORMATION	ADEQ INFORMATION
Facility Name (Customer): Page-Trowbridge Ranch Landfill	Date of Inspection: 4/17/2019
Facility Location (Place): Pinal County Sec 27-33, T9S, R14E, Oracle Junction, AZ 85721-0300	County: Pinal
	Inspector: Mario Barrios
Mailing Address: PO Box 210300 #Risk Management Service, Tucson, AZ 85721	Telephone: (602) 771-5349
	Accompanied by: Mel Bunkers, Anthony Leverock, Lowell Carty
Responsible Party: University of Arizona – Department of Risk Management	ADEQ Follow-up Contact: Mario Barrios
On-Site Representative: Jeffery Christensen	
Title: EHS Manager	
Telephone: (520) 349-2187	Title: Hazardous Waste Compliance Officer
Email: jgchrist@email.arizona.edu	Telephone: (602) 771-5349

The ADEQ representative(s) identified above were present at the above address on the above listed date and time. Upon entry to the premises, the ADEQ representative(s) met with me, presented photo identification indicating that they are ADEQ employees and explained:

That the purpose of the inspection is to determine:

- Compliance with Title 49 of the Arizona Revised Statutes, Title 18 of the Arizona Administrative Code* and/or:

Arizona Revised Statutes: Title 49, Chapter 3
Arizona Administrative Code: Title 18, Chapter 2
Permit/Agreement Number:

- Qualification for a license issued pursuant to:

Arizona Revised Statutes: Title 49, Chapter 3
Arizona Administrative Code: Title 18, Chapter 2

- That this inspection is conducted pursuant to the authority granted in Arizona Revised Statutes § 49-104(B)(8) and/or:

Arizona Revised Statutes: § 41-1009
Arizona Administrative Code: Title 18, Chapter 2
Permit/Agreement Number:

- That the state shall not be barred by the statutes of limitations of actions, according to A.R.S. § 12-510, except as provided in A.R.S. § 12-529 concerning certain claims based on navigability of watercourses. According to 28 U.S.C. § 2462, the U.S. government must commence an action within 5 years after the date the claim first accrued.

- Possible applicability of Small Business Bill of Rights pursuant to Arizona Revised Statutes § 41-1001(21)

That the fee for this inspection is: N/A

*The Arizona Revised Statutes (A.R.S.) can be found on the internet: www.azleg.state.az.us/ArizonaRevisedStatutes.asp while the Arizona Administrative Code (A.A.C.) can be found at www.azsosaz.gov/public_services/Table_of_Contents.htm

While I have the right to refuse to sign this form, the ADEQ representatives may still proceed with the inspection

- I have read this notice and discussed any questions or concerns with the ADEQ representatives and I have received the Small Business Bill of Rights.

The regulated person or authorized on-site representative refused to sign.

- The regulated person or an authorized on-site representative was not present at the facility.

Name of Regulated Person or Authorized On-Site Representative

EHS Manager
Title

4/17/2019

Signature of ADEQ Representative

Inspection Rights

- I understand that I can accompany the ADEQ representative(s) on the premises, except during confidential interview.
- I understand that I have right to, on request:
 - Copies of any original documents taken during the inspection, and that ADEQ will provide copies of those documents at ADEQ's expense;
 - A split of any samples taken during the inspection, if the split of the samples would not prohibit an analysis from being conducted or render an analysis inconclusive;
 - Copies of any analysis performed on samples taken during the inspection and that ADEQ would provide copies of this analysis at ADEQ's expense;
 - Copies of any documents to be relied on to determine compliance with licensure or regulatory requirements if the agency is otherwise permitted by law to do so.
- I also understand that:
 - Each person who is interviewed by an ADEQ inspector during the inspection must be informed that:
 - 1) Participation in an interview is voluntary, unless legally compelled to participate;
 - 2) They have the right to have an attorney or other experts in their field present during the interview to represent or advise the regulated person;
 - 3) The ADEQ inspector may not take any adverse action or treat less favorably or draw any inference as a result of the regulated person's decision to be represented by an attorney or advised by any other experts in their field;
 - 4) Statements made by the person may be included in the inspection report; and
 - 5) They have the right to 24 hours to review and revise any written witness statement drafted by the ADEQ inspector on which the ADEQ inspector requests that person's signature.
 - If the information and documents provided to the ADEQ inspector become a public record, trade secrets and proprietary and confidential information may be redacted, unless the information and documents are not confidential pursuant to statute.
 - Each person interviewed during the inspection must be informed that statements made by the person may be included in the inspection report;
 - Each person whose conversation is tape recorded during the inspection must be informed that the conversation is being tape recorded;
 - If an administrative order is issued or a permit decision is made based on the results of the inspection, I have the right to appeal that administrative order or permit decision. I understand that my administrative hearing rights are set forth in Arizona Revised Statutes § 41-1092 *et seq.* and my rights relating to an appeal of a final agency decision are found in Arizona Revised Statutes § 12-901 *et seq.*;
 - If I have any questions or concerns about this inspection, I may contact the person listed as the ADEQ Follow-up Contact on the front of this form; ADEQ's Ombudsman at (602) 771-4322 (toll free inside Arizona at (800) 2345677, extension, 771-4322); or the Arizona Ombudsman-Citizens' Aid office at (602) 277-7292 (toll free at (800) 872-2879);
 - If I have any questions concerning my rights to appeal an administrative order or permit decision, I may contact ADEQ's Office of Administrative Counsel at (602) 771-2212 (toll free inside Arizona at (800) 234-5677, extension 771-2212).

Arizona Revised Statutes: Small Business Bill of Rights

41-1001.01. Regulatory bill of rights; small businesses

- A. To ensure fair and open regulation by state agencies, a person:
1. Is eligible for reimbursement of fees and other expenses if the person prevails by adjudication on the merits against an agency in a court proceeding regarding an agency decision as provided in section 12-348.
 2. Is eligible for reimbursement of the person's costs and fees if the person prevails against any agency in an administrative hearing as provided in section 41-1007.
 3. Is entitled to have an agency not charge the person a fee unless the fee for the specific activity is expressly authorized as provided in section 41-1008.
 4. Is entitled to receive the information and notice regarding inspections and audits prescribed in section 41-1009.
 5. May review the full text or summary of all rulemaking activity, the summary of substantive policy statements and the full text of executive orders in the register as provided in article 2 of this chapter.
 6. May participate in the rulemaking process as provided in articles 3, 4, 4.1 and 5 of this chapter, including:
 - (a) Providing written comments or testimony on proposed rules to an agency as provided in section 41-1023 and having the agency adequately address those comments as provided in section 41-1052, subsection D, including comments or testimony concerning the information contained in the economic, small business and consumer impact statement.
 - (b) Filing an early review petition with the governor's regulatory review council as provided in article 5 of this chapter.
 - (c) Providing written comments or testimony on rules to the governor's regulatory review council during the mandatory sixty-day comment period as provided in article 5 of this chapter.
 7. Is entitled to have an agency not base a licensing decision in whole or in part on licensing conditions or requirements that are not specifically authorized by statute, rule or state tribal gaming compact as provided in section 41-1030, subsection B.
 8. Is entitled to have an agency not make a rule under a specific grant of rulemaking authority that exceeds the subject matter areas listed in the specific statute or not make a rule under a general grant of rulemaking authority to supplement a more specific grant of rulemaking authority as provided in section 41-1030, subsection C.
 9. May allege that an existing agency practice or substantive policy statement constitutes a rule and have that agency practice or substantive policy statement declared void because the practice or substantive policy statement constitutes a rule as provided in section 41-1033.
 10. May file a complaint with the administrative rules oversight committee concerning:
 - (a) A rule's, practice's or substantive policy statement's lack of conformity with statute or legislative intent as provided in section 41-1047.
 - (b) An existing statute, rule, practice alleged to constitute a rule or substantive policy statement that is alleged to be duplicative or onerous as provided in section 41-1048.
 11. May have the person's administrative hearing on contested cases and appealable agency actions heard by an independent administrative law judge as provided in articles 6 and 10 of this chapter.
 12. May have administrative hearings governed by uniform administrative appeal procedures as provided in articles 6 and 10 of this chapter and may appeal a final administrative decision by filing a notice of appeal pursuant to title 12, chapter 7, article 6.
 13. May have an agency approve or deny the person's license application within a predetermined period of time as provided in article 7.1 of this chapter.
 14. Is entitled to receive written notice from an agency on denial of a license application:
 - (a) That justifies the denial with references to the statutes or rules on which the denial is based as provided in section 41-1076.
 - (b) That explains the applicant's right to appeal the denial as provided in section 41-1076.
 15. Is entitled to receive information regarding the license application process before or at the time the person obtains an application for a license as provided in sections 41-1001.02 and 41-1079.
 16. May receive public notice and participate in the adoption or amendment of agreements to delegate agency functions, powers or duties to political subdivisions as provided in section 41-1026.01 and article 8 of this chapter.
 17. May inspect all rules and substantive policy statements of an agency, including a directory of documents, in the office of the agency director as provided in section 41-1091.
 18. May file a complaint with the office of the ombudsman-citizens aide to investigate administrative acts of agencies as provided in chapter 8, article 5 of this title.
 19. Unless specifically authorized by statute, may expect state agencies to avoid duplication of other laws that do not enhance regulatory clarity and to avoid dual permitting to the extent practicable as prescribed in section 41-1002.
 20. May have the person's administrative hearing on contested cases pursuant to title 23, chapter 2 or 4 heard by an independent administrative law judge as prescribed by title 23, chapter 2 or 4.

- B. The enumeration of the rights listed in subsection A of this section does not grant any additional rights that are not prescribed in the sections referenced in subsection A of this section.
- C. Each state agency that conducts audits, inspections or other regulatory enforcement actions pursuant to section 41-1009 shall create and clearly post on the agency's website a small business bill of rights. The agency shall create the small business bill of rights by selecting the applicable rights prescribed in this section and section 41-1009 and any other agency-specific statutes and rules. At the request of an authorized on-site representative of the regulated small business, the agency shall provide a written document of the small business bill of rights. In addition to the rights listed in this section and section 41-1009, the agency notice of the small business bill of rights shall include the process by which a small business may file a complaint with the agency employees who are designated to assist members of the public or regulated community pursuant to section 41-1006. The notice must provide the contact information of the agency's designated employees. The agency notice must also state that if the regulated person has already made a reasonable effort with the agency to resolve the problem and still has not been successful, the regulated person may contact the office of ombudsman-citizens aide.



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

HAZARDOUS WASTE UNIT
COMPLIANCE CHECKLIST

Hazardous Waste Permit (LTF # 54500)

University of Arizona – Page Trowbridge Ranch Landfill

EPA ID No. AZD 980 665 814

This checklist is provided as a tool for permit holders and ADEQ staff to have a consistent understanding of significant compliance expectations under this permit. This checklist is designed to be easy to read and follow. This list does not include every permit condition and permit holders should ensure they understand the full requirements of their permit. This list does not supplant or supersede any legal requirement and is not binding on the permit holder or ADEQ staff.

FACILITY NAME: Page Trowbridge Ranch Landfill

EPA ID NUMBER: AZD 980 665 814

PLACE ID NUMBER: 3166

STREET ADDRESS: T9S, R14E, S½ of Section 27 and N½ of S34, Gila and Salt River
Base & Meridian; Lat 32° 36' 50" N, Long 110° 53' 30" W

CITY/STATE/ZIP: Pinal County, AZ

TELEPHONE NUMBER: FAX: (520) 621-3706 – Jeff: (520) 621-1790 - Office: (520) 621-1590

MAILING ADDRESS: University of Arizona, Risk Management Services
P.O. Box 210300
Tucson, AZ 85721-0300

Inspection

Date: April 17, 2019

Date of Last Inspection: October 24, 2017

NOTE: Any omissions in this report and any accompanying notices shall not be construed as a determination of compliance with applicable regulations. Any regulatory citations to 40 CFR are as adopted by the Arizona Administrative Code, A.A.C. R18-8-201 *et seq.* Photographs available upon request.

Hazardous Waste Compliance Checklist

Page Trowbridge Ranch Landfill

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From 1962 to February 1, 1986, University of Arizona (UA) used Page Trowbridge Ranch Landfill (PTRL) to dispose of low-level radioactive and chemical wastes generated by laboratories at the UA, NAU, ASU, and Veterans Hospital in Tucson. The PTRL site occupies a total of 3.25 acres and consists of two units: Unit A (northern unit) measures 200 feet by 200 feet, and Unit B (southern unit) measures 200 feet by 500 feet. In both units, wastes were placed into individual cells (pits) that were approximately 15 feet deep.

Disposal operations began at Unit B, which from early 1960's received and maintained approval from the Arizona Atomic Energy Commission for disposal of low-level radioactive laboratory wastes. Disposal of mixed wastes at Unit B started in late 1960's, and continued to 1986. Chemical waste disposal cells at Unit B were first used as open neutralization and burn pits; subsequently, they were used for direct burial of chemicals in one- and five-gallon containers (bottles, cans, boxes, bags) and 55-gallon drums packed with adsorbent materials (lab packs). In 1982, Unit A, which was used only for disposal of chemical wastes, replaced Unit B for disposal of hazardous waste only. The unit was designed and operated in accordance with RCRA standards for landfills. The disposal cells were individually double-lined with a chemically resistant synthetic liner. Wastes were received in sealed, 55-gallon drums (DOT 17C). These drums were placed into the cells in single layers, sealed with the plastic liner, and covered with soil. Recordkeeping of wastes disposed in PTRL began in 1978. Based on manifests and earlier disposal records, a total of 80 tons of original containers and 200 tons of lab packs were disposed. This inventory does not include the radioactive wastes or undocumented chemical wastes. The chemical wastes consisted primarily of solvents, ignitable liquids, acids bases, heavy metals, pesticides, and photographic compounds. The landfill was closed in August 1997, in accordance with an approved RCRA closure plan and amendments. Final closure included the following:

- Construction of a single monolithic earthen cover consisting of a 24-inch subgrade with two layers of geogrid; a 24-inch soil infiltration barrier; a 200-mil geonet; and a 24-inch vegetative soil cover.
- Installation of a 6-ft high chain link fence with barbed wire on top;
- Construction of a road network to provide easy access to the facility;
- Construction of storm water channels, and Installation of 36-inch x 22-inch corrugated metal pipe-arch culverts for storm water management;

Following landfill closure, investigations were conducted in 2002, 2003, 2005, and 2007 to evaluate potential impacts of the landfill on subsurface soil, soil vapor, and groundwater in the immediate vicinity of the landfill. The investigations noted that organic vapors were migrating from the landfill cells. In 2004 and 2005, UA submitted work plans for the installation of a soil vapor extraction system located between landfill cells A and B, to remove vapors from the vadose zone. The system commenced operations in June 2006. The calibrated model of vapor diffusion over the history of the landfill operation indicates that with implementation of a soil-vapor extraction system, soil vapor concentrations would likely decline and stabilize in approximately 10 years.

A post-closure permit application was submitted in December 1997, and was approved by ADEQ on November 6, 2001. The permit and subsequent renewals established a 30-year post-closure period for maintenance of PTRL. Post-closure care includes:

- Inspection and maintenance of the covers of the closed landfill unit – periodic inspections are performed to monitor final cover integrity, erosion, and woody vegetation growth. Maintenance and repair is performed at the time of inspection or as soon as practicable to original final cover specifications and conditions.
- Inspection and maintenance activities – Preventative and corrective maintenance and repair procedures are performed on the perimeter fence, access roads, warning signs, monitor wells, drainage control systems, survey monuments, soil vapor extraction system, and closed landfill unit vegetative covers; Inspection of these items is performed quarterly.
- Groundwater and soil vapor monitoring and reporting – a groundwater detection monitoring plan is implemented to periodically collect and analyze groundwater and soil vapor samples from on-site monitoring wells and monitoring points. The measurement of groundwater elevations and implementation of groundwater detection monitoring at the on-site monitoring wells is performed semiannually.

[Click here to enter text.](#)

Physical Inspection

Observations [Top](#)

- ADEQ observed a two foot wide hole under the perimeter fence. At the time of inspection the hole was corrected.
- At the time of inspection, ADEQ observed multiple signs that were not readable. The signage along the perimeter fence needs to be legible within 25 feet "Danger – Unauthorized Personnel Keep Out." In addition, the spacing for the signs must be between 50-75 feet, depending on the size of the sign.
- **Part 2 - Post Closure - section F. security number 3:**
At the time of inspection, ADEQ observed multiple signs that were not readable. The permittee will maintain signs at all entrances in both English and Spanish.

Key: C = In Compliance N = Not in Compliance N/A = Not Applicable P = Pending

Site Security [Top](#)

1. Are the facility's security/safety features listed below in good shape:

- Gates
- Locks
- Fence
- Signage

NOTES: "In good shape" means:

- Verify that the gates allow ease of access; verify that there are no gaps in or under the gate that would allow unauthorized access to the facility; verify that the barbed wire is uncut and not bent;
- Verify that the locks work;
- Verify that no portion of the fence slumps and that the fencing supports appear to be straight ; that the barbed wire strands are not cut or bent; verify that there are no holes or gaps in the fence itself or that there are no gaps under the fence resulting from burrowing or storm water flow so as to allow for unauthorized access to the facility;
- Verify that signage is present at the gate and appears along each side of the border/security fence with lettering that is readable at 25 feet.

Permit Part II / Permit Attachment B App B-1 , Permit Attachment D

Comments:

At the time of inspection, ADEQ observed multiple signs along the perimeter fence that were not readable. ADEQ also observed that the spacing between the signs in some sections was over 100 feet (see photos # 6 and 7).

Compliance Condition:

Please submit written and photographic documentation showing that new signs have been installed and the sign spacing is between 50-75 feet.

C: N: N/A: P:

Preparedness & Prevention [Top](#)

<p>1. Does the permittee have available the following required equipment to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment:</p> <ul style="list-style-type: none"> • Communications system (e.g., range radio, cell phone) • Device such as a telephone (e.g., landline phone box) <p>40 CFR § 264.32 / Permit Attachment F</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>2. Are portable fire extinguishers stored at the soil vapor extraction system? Are they fully charged? Have they been inspected within the past year?</p> <p>40 CFR § 264.33 / Permit Attachment F</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>

Post Closure Care [Top](#)

<p>1. Does the access road leading to the facility allow ease of access?</p> <p>NOTE: Verify that the access road (i.e., not including Willow Springs Road) is not washed out or obstructed so as to restrict access by personnel or emergency services.</p> <p>Permit Part II / Permit Attachment B</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>2. Are the roads onsite in good condition and free of vegetation?</p> <p>Permit Part II / Permit Attachment B</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>3. Are the following structures free of damage, erosion and woody vegetation growth?</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Cell A Cover <input checked="" type="checkbox"/> Cell A Side slope <input checked="" type="checkbox"/> Cell B Cover <input checked="" type="checkbox"/> Cell B Side slope <p>Permit Part II / Permit Attachment B</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>4. Are the survey monuments visible with no visible evidence of tampering?</p> <p>Permit Part II / Permit Attachment B</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>

Hazardous Waste Satellite Accumulation Area [Top](#)

<p>1. Are all hazardous waste satellite accumulation containers:</p> <ul style="list-style-type: none"> • Located at or near point of initial generation? • Under the direct control of operator generating the waste? <p>40 CFR § 262.34(c)(1)</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>
<p>2. Are all hazardous waste satellite accumulation containers at or below the 55-gallons limit (or 1-quart of acute hazardous waste) for any one waste stream at any one work station/location?</p> <p>40 CFR § 262.34(c)(1)</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>
<p>3. Are all hazardous waste satellite accumulation container (s) marked with the words "Hazardous Waste" or other words that identify the contents of the container(s)?</p> <p>40 CFR § 262.34(c)(1)(ii)</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>

Hazardous Waste Satellite Accumulation Area [Top](#)

<p>4. Are all hazardous waste satellite accumulation containers closed? Evidence of:</p> <ul style="list-style-type: none"> • Tight fitting lids • Vapor tight/liquid tight • Roll-off tarps secured <p>No evidence of:</p> <ul style="list-style-type: none"> • Lid not secured or missing • Gaskets, lid, bung, vent; damaged, missing • Ring missing • Ring not secured & bolted • Funnel not screwed in tight • Funnel lid not tight, closed • Open/loose bung or vent • Inappropriate vent, flash arrester, vacuum breaker, pressure relief <p>40 CFR § 262.34 (c)(1)(i)/40 CFR § 265.173(a) / A.A.C. R18-8-262/A.A.C. R18-8-270(B)(1)</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>
<p>5. Are all hazardous waste satellite accumulation containers in good condition? No evidence of:</p> <ul style="list-style-type: none"> • Leaking, spilling, off-gassing • Punctured, holes, broken • Metal corrosion, rust, pitting, thinning; inside & outside • Plastic cut, gouged, heat deformed, softened, thinned • Bulging, creasing, & denting (not restorable to original shape) • Metal fatigue from fire, bending, wear • Chimes separated, bent, open, damaged, unsealed • Body weld open, bent, damaged, defective • Rolling rings dented, creased damaged <p>Note: If not in good condition, transfer the hazardous waste from this container to a container that is in good condition or manage the waste in some other way that complies with the requirements.</p> <p>40 CFR § 262.34 (c)(1)(i)/40 CFR § 265.171</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>
<p>6. Is the hazardous waste satellite accumulation container or liner compatible with the waste? (ex. Acids/water solutions in metal drums)</p> <p>40 CFR § 262.34 (c)(1)(i)/40 CFR § 265.172</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>
<p>7. If 55-gallons/1-quart of hazardous waste is exceeded, are the hazardous waste satellite accumulation containers moved to the central accumulation area within 3 days?</p> <p>40 CFR § 262.34(c)(2)</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>
<p>8. Are hazardous waste satellite accumulation containers marked with the accumulation start date as the date the excess amount began accumulating?</p> <p>40 CFR § 262.34(c)(2)</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>

Run-on / Run-off Controls [Top](#)

<p>1. Are the following structures in good shape?</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Culvert Crossing #1 (located between Cell A and Cell B) <input checked="" type="checkbox"/> Culvert Crossing #2 (located on the southeastern end of Cell B) <input checked="" type="checkbox"/> 18" CMP Culvert (east of Cell B at the border/security fence) <input checked="" type="checkbox"/> 18" CMP Culvert (south of Cell B at the border/security fence) <input checked="" type="checkbox"/> Cell A Swales (e.g., ditches and rip-rap) <input checked="" type="checkbox"/> Cell B Swales (e.g., ditches, rip-rap, and storm water depression) <p>NOTES "In good shape" means:</p> <ul style="list-style-type: none"> • Gates on 18" CMP culverts must be locked, unobstructed/free of debris. Interior channels of culverts must be clear so as to allow the smooth flow of storm water. Sediment filters must be staked in place; • Culvert crossings must be free of debris, and interior channels must be clear so as to allow the smooth flow of storm water. • Swales must not be eroded, damaged, or blocked with debris or excessive vegetation. <p>Permit Part II / Permit Attachment B</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
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Corrective Action - Interim Measures [Top](#)

<p>1. Are the following structures used for Interim Measures in good shape?</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> GAC Absorbers (2) <input checked="" type="checkbox"/> Solar panel Arrays (2) <input checked="" type="checkbox"/> Extraction Blower, Motor, Belt Drive <input checked="" type="checkbox"/> Injection Blower, Motor, Belt Drive <input checked="" type="checkbox"/> Control Panel / Charge Controller / Load Controller / Inverter <input checked="" type="checkbox"/> Battery Array <input checked="" type="checkbox"/> Piping <input checked="" type="checkbox"/> Condensate Separators (KO-1 and KO-2) <input checked="" type="checkbox"/> SGS Condensate Sump <p>NOTE: "In good shape" means visually check for obvious physical damage.</p> <p>Permit Part III and Permit Attachment C</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>2. Are the soil vapor monitoring enclosures in good shape?</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> MW #2 <input checked="" type="checkbox"/> MW #5 <input checked="" type="checkbox"/> Well SGS <input checked="" type="checkbox"/> Probe SGS-SP <input checked="" type="checkbox"/> Probes SGD -SP and -MP (collocated) <input checked="" type="checkbox"/> Probe SGD-DP (aka SGD-2) <input checked="" type="checkbox"/> Well SGD (used for air injection) <p>NOTE: "In good shape" means visually check for obvious physical damage.</p> <p>Permit Part III / Permit Attachment C</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>

Groundwater Monitoring [Top](#)

<p>1. Are the groundwater monitoring well enclosures in good shape?</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> MW #2 <input checked="" type="checkbox"/> MW #3 <input checked="" type="checkbox"/> MW #4 <input checked="" type="checkbox"/> MW #5 <p>NOTE: "In good shape" means free of deterioration and/or vandalism, are the well enclosures locked? Are the ADWR IDs and the MW designations present and readable?</p> <p>Permit Part III/Permit Attachment B</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>2. Does the well pumping assembly operate properly?</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> MW #2 <input checked="" type="checkbox"/> MW #3 <input checked="" type="checkbox"/> MW #4 <input checked="" type="checkbox"/> MW #5 <p>NOTE: Verify that well pumping assembly is operating properly only if permittee is conducting groundwater monitoring event.</p> <p>Permit Part III/Permit Attachment B</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>3. Are the sounding tubes clear?</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> MW #2 <input checked="" type="checkbox"/> MW #3 <input checked="" type="checkbox"/> MW #4 <input checked="" type="checkbox"/> MW #5 <p>NOTE: Verify that sounding tubes are clear only if permittee is conducting groundwater monitoring event.</p> <p>Permit Part III/Permit Attachment B</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>

Records Review

ADEQ Fees and Annual Report [Top](#)

<p>1. Has the permittee registered annually with ADEQ and paid an annual registration fee?</p> <p>NOTE: TSDF registration is due March 1st of each year.</p> <p>A.R.S. 49-929.A & B/ A.A.C. R18-8-260.</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>2. Has the permittee submitted a timely Facility Annual Report to ADEQ?</p> <p>NOTE: The report must be accurate and complete as per 40 CFR § 264.75.</p> <p>A.A.C. R18-8-264.I, Permit Part I.E.12</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>

Operating Record [Top](#)

<p>1. Does the permittee keep a copy of the most up-to-date Operating Record (at UA Risk Management)? Does the facility keep Operating Records for 3 years? The Operating Record must include:</p> <p><input checked="" type="checkbox"/> (a) Most recent copy of the Post-Closure Plan;; [A.A.C. R18-8-264.A (40 CFR 264.73(b)(1) Permit Part I.G, Permit Attachment B]</p> <p><input checked="" type="checkbox"/> (b) Most recent copy of the Contingency Plan; [A.A.C. R18-8-264.A (40 CFR 264.73(b)(2)), Permit Part I.G, Permit Attachment F]</p> <p><input checked="" type="checkbox"/> (c) Personnel training documents; [A.A.C. R18-8-264.A (40 CFR 264.73(b)(3)), Permit Part I.G, Permit Attachment E]</p> <p><input checked="" type="checkbox"/> (d) The summary reports and details of all incidents that require implementing the Contingency Plan (this may be a written record or an electronic record with written report provided upon request by the Director's authorized representative); [A.A.C. R18-8-264.A (40 CFR 264.73(b)(4))]</p> <p><input checked="" type="checkbox"/> (e) The records and results of inspections (this may be a written or an electronic record, however electronic records of any checklist must be identical electronic images of the original written record); [A.A.C. R18-8-264.A (40 CFR 264.73(b)(5)), Permit Part I.G]</p> <p><input checked="" type="checkbox"/> (f) Most recent copy of the EGDMP and EGDMP QAPP; [A.A.C. R18-8-264.A (40 CFR 264.73(b)(6)), Permit Part I.E.9, Permit Part I.G, Permit Attachments G and H]</p> <p><input checked="" type="checkbox"/> (g) The monitoring, testing or analytical data, and corrective action (this may be a written record or an electronic record with written report provided upon request by the Director's authorized representative); [A.A.C. R18-8-264.A (40 CFR 264.73(b)(6)), Permit Part I.E.9, Permit Part I.G] [A.A.C. R18-8-264.A (40 CFR 264.73(b)(9))]</p> <p>40 CFR § 264.73 / Permit Part II.J.1</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
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Waste Analysis [Top](#)

<p>1. Do waste analyses / determinations appropriately characterize wastes generated in association with the post-closure plan for purposes of proper storage, treatment and disposal? Waste determinations may include:</p> <ul style="list-style-type: none"> • Lists of wastes produced • Process descriptions • Safety Data sheets • Waste Profile Sheets • Raw analytical data and QA/QC documents • Sampling plans • Analytical results <p>NOTES: Anticipated generated wastes associated with the Permit may include, but are not limited to:</p> <ul style="list-style-type: none"> • contaminated soils, contaminated PPE, and investigative-derived wastes resulting from site-wide corrective actions, and • Liquids removed from the condensate collection drum, condensates from KO-1, or KO-2, and GAC generated at the interim measures response (i.e., SVE) system. <p>40 CFR § 264.13 / Permit Part II / Permit Part III and Permit Attachment G / Permit Part IV and Permit Attachment I / Permit Attachment C</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
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Contingency Plan [Top](#)

<p>1. Is the Contingency Plan (CP) maintained at the Risk Management Office, and is available to facility personnel?</p> <p>40 CFR § 262.53(a) / A.A.C. R-18-8-270(B)(1) / Permit Part I.G / Permit Part III / Permit Attachment F</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>2. Have there been changes to the CP, and has it been submitted as a Permit modification in accordance with 40 CFR 270.42?</p> <p>40 CFR § 264.52(e), and 264.54 / Permit Part II.I / Permit Attachment F</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>

Contingency Plan [Top](#)

<p>3. Does the CP include an evacuation plan? Are evacuation routes accurately designated in contingency plan?</p> <p>NOTE: The evacuation plan must include signals to begin evacuation, evacuation routes, and alternate evacuation routes.</p> <p>40 CFR § 265.52(f) / Permit Part II.I / Permit Attachment F</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
<p>4. Does the CP include an updated list of required emergency equipment at the facility, including locations, descriptions and relevant capabilities?</p> <p>40 CFR § 264.52(e) / Permit Part II.I / Permit Attachment F</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
<p>5. Does the CP include the names, addresses, and phone numbers (office and home) of all persons qualified as emergency coordinators?</p> <p>NOTE: The primary coordinator must be listed first, and others must be listed in the order in which they will assume responsibility as alternates.</p> <p>40 CFR § 264.52(d) / Permit Part II.I / Permit Attachment F</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
<p>6. Is there, at all times, an emergency coordinator on the premises or on call (able to reach the facility within a short period of time, e.g., two hours)?</p> <p>NOTES: The emergency coordinator must be thoroughly familiar with:</p> <ul style="list-style-type: none"> • All aspects of the contingency plan. • All operations and activities at the facility. • Location and characteristics of all waste. • Location of all records. • Layout of the entire facility. <p>The emergency coordinator must have the authority to commit the resources needed to carry out the CP.</p> <p>40 CFR § 264.55 / Permit Part II.I / Permit Attachment F</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
<p>7. Did the permittee submit the CP and its updates to all police and fire departments, and State and local emergency response teams that may be called upon during an emergency? The plan must specify names of the entities it is being submitted to. The facility must have copies of the transmittal letters.</p> <p>40 CFR § 264.53(b) / Permit Part II.I / Permit Attachment F</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
<p>8. Has the facility had a release, fire or explosion and/or implemented the CP? Did the facility immediately notify the ADEQ Emergency Response Unit ((602) 771-2330 or (800) 234-5677) and either the on-scene government coordinator for the geographical area or the National Response Center (800) 424-8802? Responses may be made for copies of 15-day written reports and operating logs with records of spills and incidents, including those requiring fire department or 9-1-1 assistance.</p> <p>The reports must include:</p> <ul style="list-style-type: none"> • Name, address, and telephone number of the owner or operator; • Name, address, and telephone number of the facility; • Date, time, and type of incident (e.g., fire, explosion); • Name and quantity of material(s) involved; • The extent of injuries, if any, • An assessment of actual or potential hazards to human health or the environment, where this is applicable; and • Estimated quantity and disposition or recovered material that resulted from the incident. <p>40 CFR § 264.56 / Permit Part II.I / Permit Attachment F</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>

Personnel Training [Top](#)

<p>1. Does the permittee maintain the following documents and records at the facility:</p> <ul style="list-style-type: none"> • The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job (d)(1); • A written job description for each position. This description must include the requisite skill, education, or other qualifications, and duties of facility personnel assigned to each position; • A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position; • Records that document that the required training or job experience has been given to, and completed by, facility personnel. <p>NOTE: Training records on current personnel must be kept until closure of the facility. Training records on former employees must be kept for at least three years from the date the employee last worked at the facility.</p> <p>40 CFR § 264.16 / A.A.C. R18-8-270(B)(1) / Permit Part II.H / Permit Attachment E</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
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Personnel Training [Top](#)

<p>2. Did facility personnel successfully complete a program of classroom instruction or on the job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of 40 CFR § 265.16 for handling hazardous waste?</p> <p>NOTE: This program must be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.</p> <p>40 CFR § 264.16(a) / A.A.C. R18-8-270(B)(1)/Permit Part II.H / Permit Attachment E</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>3. Did facility personnel successfully complete the training program within six months after the date of their employment or assignment to a facility, or to a new position at a facility, whichever is later?</p> <p>NOTE: Employees hired after the effective date of these regulations must not work in unsupervised positions until they have completed the training requirements.</p> <p>40 CFR § 264.16(b) / A.A.C. R18-8-270(B)(1) / Permit Part II.H / Permit Attachment E</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>4. Did facility personnel attend annual review of the initial training?</p> <p>40 CFR § 264.16(c) / A.A.C. R18-8-270(B)(1) / Permit Part II.H /Permit Attachment E</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>

Inspection Records [Top](#)

<p>1. Does the permittee maintain quarterly inspection logs of the facility structures? Do the inspections address:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • Signage • Communication systems • Landfill covers • Survey monuments </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • Gates and locks • Drainage structures • Perimeter fencing • Access roads </td> </tr> </table> <p>40 CFR § 264.174 / Permit Part II.G / Permit Part II.J / Permit Attachment B</p>	<ul style="list-style-type: none"> • Signage • Communication systems • Landfill covers • Survey monuments 	<ul style="list-style-type: none"> • Gates and locks • Drainage structures • Perimeter fencing • Access roads 	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<ul style="list-style-type: none"> • Signage • Communication systems • Landfill covers • Survey monuments 	<ul style="list-style-type: none"> • Gates and locks • Drainage structures • Perimeter fencing • Access roads 		
<p>2. Are all written logs for the facility structures kept for three years from the date of the inspection, filled in after each inspection, and include the following information:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Inspection date <input checked="" type="checkbox"/> Inspector's name <input checked="" type="checkbox"/> Inspector's signature </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Observation remarks <input checked="" type="checkbox"/> Corrections made <input checked="" type="checkbox"/> Date corrections completed </td> </tr> </table> <p>NOTE: If deficiencies are found, then facility may be found in non-compliance with duty to inspect, log, keep records, and train staff.</p> <p>40 CFR §264.174 / Permit Part II.G / Permit Part II.J / Permit Attachment B</p>	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Inspection date <input checked="" type="checkbox"/> Inspector's name <input checked="" type="checkbox"/> Inspector's signature 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Observation remarks <input checked="" type="checkbox"/> Corrections made <input checked="" type="checkbox"/> Date corrections completed 	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Inspection date <input checked="" type="checkbox"/> Inspector's name <input checked="" type="checkbox"/> Inspector's signature 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Observation remarks <input checked="" type="checkbox"/> Corrections made <input checked="" type="checkbox"/> Date corrections completed 		
<p>3. Does the permittee keep weekly inspection logs of the Interim Measures (SVE) System Do the inspections address:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • Pitot tubes • Presence of condensate in condensate separators (October through April) • Grounding cables for the solar array and electrical systems </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • Blowers and blower motors • Electrical system • Battery array </td> </tr> </table> <p>40 CFR § 264.174 / Permit Part II.G / Permit Part II.J / Permit Attachment B / Permit Attachment C</p>	<ul style="list-style-type: none"> • Pitot tubes • Presence of condensate in condensate separators (October through April) • Grounding cables for the solar array and electrical systems 	<ul style="list-style-type: none"> • Blowers and blower motors • Electrical system • Battery array 	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<ul style="list-style-type: none"> • Pitot tubes • Presence of condensate in condensate separators (October through April) • Grounding cables for the solar array and electrical systems 	<ul style="list-style-type: none"> • Blowers and blower motors • Electrical system • Battery array 		
<p>4. Does the permittee keep quarterly inspection logs of the Interim Measures (SVE) System Do the inspections address:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • Blower belt drives (PDB-1 and PDB-2) • General blower function • Panel array </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • Vacuum gauges • Piping • Blower motors (brushes) </td> </tr> </table> <p>40 CFR § 264.174 / Permit Part II.G / Permit Part II.J / Permit Attachment B / Permit Attachment C</p>	<ul style="list-style-type: none"> • Blower belt drives (PDB-1 and PDB-2) • General blower function • Panel array 	<ul style="list-style-type: none"> • Vacuum gauges • Piping • Blower motors (brushes) 	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<ul style="list-style-type: none"> • Blower belt drives (PDB-1 and PDB-2) • General blower function • Panel array 	<ul style="list-style-type: none"> • Vacuum gauges • Piping • Blower motors (brushes) 		
<p>3. Are all written logs for the Interim Measures (SVE) System kept for three years from the date of the inspection, filled in after each inspection, and include the following information:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Inspection date <input checked="" type="checkbox"/> Inspector's name <input checked="" type="checkbox"/> Observation remarks including corrections made <p>NOTE: If deficiencies are found, then facility may be found in non-compliance with duty to inspect, log, keep records, and train staff.</p> <p>40 CFR §264.174 / Permit Part II.G / Permit Part II.J / Permit Attachment B / Permit Attachment C</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>		

Inspection Records [Top](#)

4. Does the facility inspect the GAC on a semi-annual basis? Does the inspector collect a sample of the process stream vapor from the sampling port located in-between the lead and lag GAC absorber unit?

C: N: N/A: P:

40 CFR § 264.174 / Permit Part II / Permit Attachment B / Permit Attachment C

Groundwater Monitoring Records [Top](#)

1. Does the facility have copies of groundwater monitoring analytical data?

Note: See also Operating Record, item (g)

C: N: N/A: P:

40 CFR § 264.73 / A.A.C. R18-8-264(A) / Permit Part I.G / Permit Part III.E / Permit Attachment G

Soil Vapor Monitoring Records [Top](#)

1. Does the facility have copies of soil vapor monitoring analytical data?

Note: See also Operating Record, item (g)

C: N: N/A: P:

Permit Part I.G / Permit Part III.D / Permit Part IV.I.4 / Permit Attachment G

Notifications [Top](#)

1. Has the permittee notified ADEQ in writing of new SWMUs or AOCs?

Permit Part IV.E.1

C: N: N/A: P:

2. Has the permittee reported issues of noncompliance which may endanger human health or the environment as soon as possible or within twenty-four (24) hours of becoming aware of the circumstances?

Permit Part I.E.12 / Permit Part IV.F.1

C: N: N/A: P:


Additional Comments [Top](#)


Click here to enter text.

Hazardous Waste Inspection Photographic Log


Site Location: Page Trowbridge Ranch Landfill -	Photographer: Mario Barrios		
Place ID No.: 3166			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; padding: 2px;">Photo No. 1</td> <td style="padding: 2px;">Date: 4/17/2019</td> </tr> </table>		Photo No. 1	Date: 4/17/2019
Photo No. 1		Date: 4/17/2019	
Photo Description: At the time of inspection, ADEQ observed the east side entrance to Page Trowbridge Ranch Landfill.			


Site Location: Page Trowbridge Ranch Landfill -	Photographer: Mario Barrios		
Place ID No.: 3166			
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%; padding: 2px;">Photo No. 2</td> <td style="padding: 2px;">Date: 4/17/2019</td> </tr> </table>		Photo No. 2	Date: 4/17/2019
Photo No. 2		Date: 4/17/2019	
Photo Description: At the time of inspection, ADEQ verified that the gate was equipped with a padlock.			

Site Location: Page Trowbridge Ranch Landfill -		Photographer: Mario Barrios	
Place ID No.: 3166			
Photo No. 3	Date: 4/17/2019		
Photo Description: At the time of inspection, ADEQ observed the signage at the east entrance to Page Trowbridge Ranch Landfill.			


Site Location: Page Trowbridge Ranch Landfill -		Photographer: Mario Barrios	
Place ID No.: 3166			
Photo No. 4	Date: 4/17/2019		
Photo Description: At the time of inspection, ADEQ observed that the gate was locked at the west entrance to Page Trowbridge Ranch Landfill.			

Site Location: Page Trowbridge Ranch Landfill -		Photographer: Mario Barrios	
Place ID No.: 3166			
Photo No. 5	Date: 4/17/2019		
Photo Description: At the time of inspection, ADEQ observed the fence along the west side of the property.			


Site Location: Page Trowbridge Ranch Landfill -		Photographer: Mario Barrios	
Place ID No.: 3166			
Photo No. 6	Date: 4/17/2019		
Photo Description: At the time of inspection, ADEQ observed that the sign along the west side of the property was not readable.			


Site Location: Page Trowbridge Ranch Landfill -		Photographer: Mario Barrios
Place ID No.: 3166		
Photo No. 7	Date: 4/17/2019	
Photo Description: At the time of inspection, ADEQ observed that the sign on the west side of the property had sun damage.		


Site Location: Page Trowbridge Ranch Landfill -		Photographer: Mario Barrios
Place ID No.: 3166		
Photo No. 8	Date: 4/17/2019	
Photo Description: At the time of inspection, ADEQ observed that there was a gap under the fence (see photo 9).		


Site Location: Page Trowbridge Ranch Landfill -		Photographer: Mario Barrios	
Place ID No.: 3166			
Photo No. 9	Date: 4/17/2019		
Photo Description: During the inspection, Jeff placed a rock covering the gap under the fence (see photo 8).			

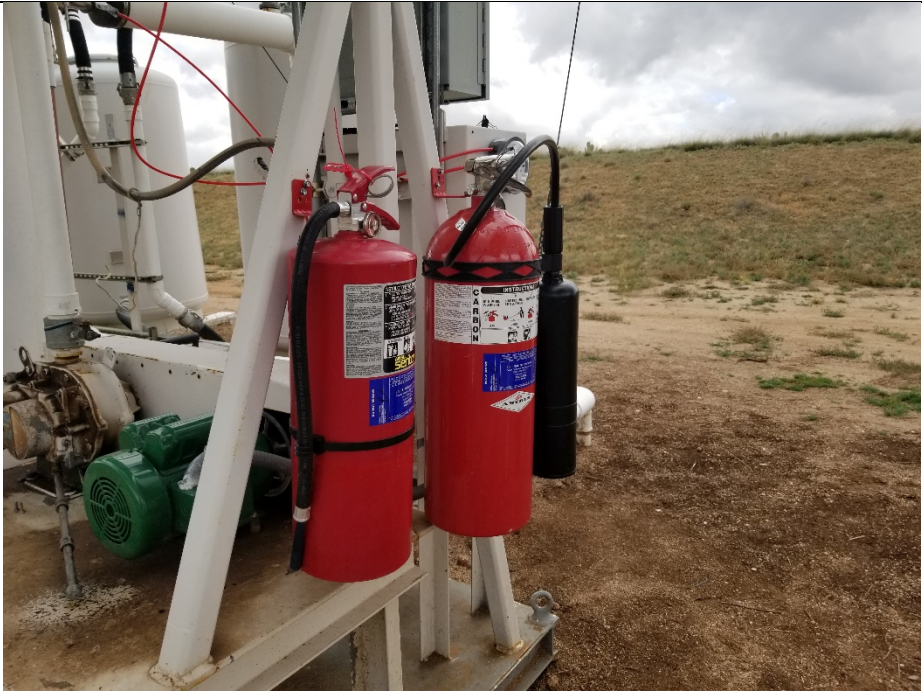
Site Location: Page Trowbridge Ranch Landfill -		Photographer: Mario Barrios	
Place ID No.: 3166			
Photo No. 10	Date: 4/17/2019		
Photo Description: At the time of inspection, ADEQ observed that the culvert was locked.			


Site Location: Page Trowbridge Ranch Landfill -		Photographer: Mario Barrios	
Place ID No.: 3166			
Photo No. 11	Date: 4/17/2019		
Photo Description: At the time of inspection, ADEQ observed Cell B to be free of damage, erosion, and woody vegetation growth.			

Site Location: Page Trowbridge Ranch Landfill -		Photographer: Mario Barrios	
Place ID No.: 3166			
Photo No. 12	Date: 4/17/2019		
Photo Description: At the time of inspection, ADEQ observed that the Soil Vapor Extraction system was in good shape.			

Site Location: Page Trowbridge Ranch Landfill -		Photographer: Mario Barrios	
Place ID No.: 3166			
Photo No. 13	Date: 4/17/2019		
Photo Description: At the time of inspection, ADEQ observed that the Soil Vapor Extraction system was in good shape.			


Site Location: Page Trowbridge Ranch Landfill -		Photographer: Mario Barrios	
Place ID No.: 3166			
Photo No. 14	Date: 4/17/2019		
Photo Description: At the time of inspection, ADEQ observed fully charged portable fire extinguishers.			


Site Location: Page Trowbridge Ranch Landfill -		Photographer: Mario Barrios	
Place ID No.: 3166			
Photo No. 15	Date: 4/17/2019		
Photo Description: At the time of inspection, ADEQ observed fully charged portable fire extinguishers.			


Site Location: Page Trowbridge Ranch Landfill -		Photographer: Mario Barrios	
Place ID No.: 3166			
Photo No. 16	Date: 4/17/2019		
Photo Description: At the time of inspection, ADEQ observed monitoring well number 3 was in good shape.			

Site Location: Page Trowbridge Ranch Landfill -		Photographer: Mario Barrios	
Place ID No.: 3166			
Photo No. 17	Date: 4/17/2019		
Photo Description: At the time of inspection, ADEQ observed monitoring well number 3 was locked.			

Site Location: Page Trowbridge Ranch Landfill -		Photographer: Mario Barrios	
Place ID No.: 3166			
Photo No. 18	Date: 4/17/2019		
Photo Description: At the time of inspection, ADEQ observed monitoring well number 2 was in operation.			

Site Location: Page Trowbridge Ranch Landfill -		Photographer: Mario Barrios	
Place ID No.: 3166			
Photo No. 19	Date: 4/17/2019		
Photo Description: At the time of inspection, ADEQ observed Cell A to be free of damage, erosion, and woody vegetation growth.			

Site Location: Page Trowbridge Ranch Landfill -		Photographer: Mario Barrios	
Place ID No.: 3166			
Photo No. 20	Date: 4/17/2019		
Photo Description: At the time of inspection, ADEQ observed that the culvert crossing and ditch was in good shape.			

Site Location: Page Trowbridge Ranch Landfill -	Photographer: Mario Barrios	
Place ID No.: 3166		
Photo No. 21		Date: 4/17/2019
Photo Description: At the time of inspection, ADEQ observed that the interior channel of the culvert was unobstructed.		



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY FIELD INSPECTION EXIT DEBRIEFING

Site Name/ID No(s): Page Trowbridge / 3166 Inspection Date: April 17, 2019

Location: T9S, R14E, S½ of Section 27 and N½ of S34, Gila and Salt River Environmental Program(s): Hazardous Waste

You have just received an inspection conducted to evaluate compliance with the Arizona Revised Statutes, Title 49; the Arizona Administrative Code; and applicable permits/licenses. The following is intended to summarize potential deficiencies noted during the inspection, items you should consider for follow up action, or additional information requested by the inspector that is necessary to make a compliance determination. Be advised that additional reports and correspondence may be forthcoming from ADEQ. Any omissions in this exit debriefing shall not be construed as a determination of compliance with applicable laws and rules.

- **ADEQ observed a two foot wide hole under the perimeter fence. At the time of inspection the hole was corrected.**
- **At the time of inspection, ADEQ observed multiple signs that were not readable. The signage along the perimeter fence needs to be legible within 25 feet "Danger – Unauthorized Personnel Keep Out." In addition, the spacing for the signs must between 50-75 feet, depending on the size of the sign.**
- **Part 2 - Post Closure - section F. security number 3**
At the time of inspection, ADEQ observed multiple signs that were not readable. The permittee will maintain signs at all entrances in both English and Spanish.

Additional areas of concern can be found on the back of this form

Please submit requested documentation by: July 1, 2019 / see inspection report


Facility Representative

Inspector

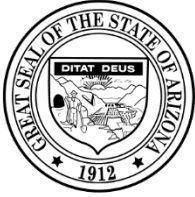
Name: Jeff Christensen

Name: Mario Barrios

Signature: 

Signature: 

Please submit your response to your inspector's attention at the Arizona Department of Environmental Quality, 1110 West Washington Street, Phoenix, Arizona 85007.



Douglas A. Ducey
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



Misael Cabrera
Director

HAZARDOUS WASTE INSPECTION REPORT COVER PAGE

<p>Facility Name: Page Trowbridge Ranch Landfill EPA ID#: AZD980665814 Physical Address: Pinal County Sec 27-33, T9S, R14E, Oracle Junction, AZ 85721-0300</p>	<p>Inspection Report ID No.: 346308 Date of Inspection: 4/22/2020 Announced Inspection: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>Responsible Party: University of Arizona – Department of Risk Management Mailing Address: University of Arizona, Risk Management Services P.O. Box 210300 Tucson, AZ 85721-0300</p>	<p>Reason for Inspection: <input checked="" type="checkbox"/> Routine Inspection <input type="checkbox"/> Follow-Up <input type="checkbox"/> Complaint Complaint No.: <input type="checkbox"/> Other:</p>
<p>Land Owner: University of Arizona Mailing Address: PO Box 210300 Tucson, AZ 85721</p>	
<p>On-Site Representative: Jeff Christensen Title: EHS Manager Phone: 520-621-1790 Email: jgchrist@email.arizona.edu</p>	
<p>Lead Inspector: Kalie Rumaner Accompanied by: David Janke, Mary Cottrell</p>	
<p>ADEQ Follow-up Contact: Kalie Rumaner Title: Compliance Officer Phone: 602-771-4739 Email: Rumaner.kalie@azdeq.gov</p>	
<p>Results of Inspection: <input type="checkbox"/> No deficiencies were noted during the course of the inspection. No ADEQ action will result from this inspection. <input type="checkbox"/> Follow-up action is needed; please submit the requested documentation, which is detailed on the inspection report. <input type="checkbox"/> Potential deficiencies were noted during the course of the inspection. Additional correspondence regarding this inspection will be forthcoming. <input checked="" type="checkbox"/> Deficiencies were noted during the course of the inspection and all deficiencies were corrected at the time of the inspection. No ADEQ action will result from this inspection.</p>	
<p>Attachments: Notice of Inspection Rights Small Business Bill of Rights Inspection Checklist and Observations Photographic Log Exit Debriefing</p>	

NOTICE OF INSPECTION RIGHTS

The ADEQ representative(s) identified above were present at the address listed above. Upon entry to the premises, the ADEQ representative(s) met with me, presented photo identification indicating that they are ADEQ employees and explained:

- That the purpose of the inspection is to determine compliance with:
 - Arizona Revised Statutes: [Title 49 \(The Environment\)](#) – Chapter 5 (Hazardous Waste Disposal)
 - Arizona Administrative Code: [Title 18 \(Environmental Quality\)](#) – Chapter 8 (Hazardous Waste Management)
 - Code of Federal Regulations: [Title 40 - Parts 260 through 273](#)
 - Hazardous Waste Permit (if applicable):

 - That this inspection is conducted pursuant to the authority granted in Arizona Revised Statutes § 49-104(B)(8) and/or:
 - Arizona Revised Statutes § [49-144](#)
 - Arizona Revised Statutes § [41-1009](#)

 - That the state shall not be barred by the statutes of limitations of actions, according to [A.R.S. § 12-510](#), except as provided in [A.R.S. § 12-529](#) concerning certain claims based on navigability of watercourses. According to [28 U.S.C. § 2462](#), the U.S. government must commence an action within 5 years after the date the claim first accrued.

 - Possible applicability of Small Business Bill of Rights pursuant to Arizona Revised Statutes [§ 41-1001\(21\)](#)

 - There is no fee associated with this inspection.

 - Photos will be taken during the inspection.

 - I understand that I can accompany the ADEQ representative(s) on the premises, except during confidential interview.

 - I understand that I have right to, upon request:
 - Copies of any original documents taken by the agency during the inspection.
 - A split of any samples taken during the inspection if the split of any samples would not prohibit an analysis from being conducted or render an analysis inconclusive.
 - Copies of any analysis performed on samples taken during the inspection.
 - Copies of any documents to be relied on to determine compliance with licensure or regulatory requirements if the agency is otherwise permitted by law to do so.
-
- I understand that:
 - Each person who is interviewed by an ADEQ inspector during the inspection must be informed that:
 - 1) Statements made by the person may be included in the inspection report.
 - 2) That conversation with an agency inspector during the inspection are being tape recorded.
 - 3) Participation in an interview is voluntary, unless legally compelled to participate in the interview.
 - 4) The person is allowed at least twenty-four hours to review and revise any written witness statement that is drafted by the agency inspector which the agency inspector requests the person's signature.
 - 5) The agency inspector may not prohibit the regulated person from having an attorney or any other experts in their field present during the interview to represent or advise the regulated person.
 - 6) The agency inspector may not take any adverse action, treat the regulated person less favorably or draw any inference as a result of the regulated person's decision to be represented by an attorney or advised by any other experts in their field.

- That the information and documents provided to the agency inspector become a public record, the regulated person may redact trade secrets and proprietary and confidential information unless the information and documents are confidential pursuant to statute.
- If an administrative order is issued or a permit decision is made based on the results of the inspection, I have the right to appeal that administrative order or permit decision. I understand that my administrative hearing rights are set forth in [Arizona Revised Statutes: Title 41 \(State Government\)](#) – Chapter 6 (Administrative Procedure) Article 10 (Uniform Administrative Hearing Procedures) [41-1092.03](#) and my rights relating to an appeal of a final agency decision are found in [Arizona Revised Statutes: Title 41 \(State Government\)](#) – Chapter 6 (Administrative Procedure) Article 10 (Uniform Administrative Hearing Procedures) [41-1092.08](#)

Additional information:

- If I have any questions or concerns about this inspection, I may contact the person listed as the ADEQ Follow-up Contact on the front of this form.
- ADEQ Hazardous Waste Unit Manager (602) 771-0381 or toll free at (800) 234-5677.
- [ADEQ Community Liaison – Ombudsman](#) (602) 771-2288 or toll free at (800) 234-5677.
- The [Arizona Ombudsman Citizens’ Aide](#) office at (602) 277-7292 or toll free at (800) 872-2879 (outside Phoenix metro area). [Arizona Revised Statutes: Title 41 \(State Government\)](#) – Chapter 8 (Agencies of the Legislative Department) Article 5 (Office of Ombudsman-Citizens Aide).
- If I have any questions concerning my rights to appeal an administrative order or permit decision, I may also contact ADEQ’s Office of Administrative Counsel at (602) 771-2212 or toll free at (800) 234-5677.

While I have the right to refuse to sign this form, the ADEQ representatives may still proceed with the inspection.

- By signing below I acknowledge that have read, understand, and discussed any questions or concerns with ADEQ representative(s) about the statutes.

Printed Name: Jeff Christensen

Date: 4/22/2020

Signature of Regulated Person or Authorized On-Site Representative

Printed Name: Kalie Rumaner

Signature of ADEQ Representative

- The regulated person or authorized on-site representative refused to sign.
- The regulated person or an authorized on-site representative was not present at the facility.

SMALL BUSINESS BILL OF RIGHTS

[A.R.S. 41-1001.01. Regulatory bill of rights; small businesses](#)

A. To ensure fair and open regulation by state agencies, a person:

1. Is eligible for reimbursement of fees and other expenses if the person prevails by adjudication on the merits against an agency in a court proceeding regarding an agency decision as provided in section 12-348.
2. Is eligible for reimbursement of the person's costs and fees if the person prevails against any agency in an administrative hearing as provided in section 41-1007.
3. Is entitled to have an agency not charge the person a fee unless the fee for the specific activity is expressly authorized as provided in section 41-1008.
4. Is entitled to receive the information and notice regarding inspections and audits prescribed in section 41-1009.
5. May review the full text or summary of all rulemaking activity, the summary of substantive policy statements and the full text of executive orders in the register as provided in article 2 of this chapter.
6. May participate in the rulemaking process as provided in articles 3, 4, 4.1 and 5 of this chapter, including:
 - (a) Providing written comments or testimony on proposed rules to an agency as provided in section 41-1023 and having the agency adequately address those comments as provided in section 41-1052, subsection D, including comments or testimony concerning the information contained in the economic, small business and consumer impact statement.
 - (b) Filing an early review petition with the governor's regulatory review council as provided in article 5 of this chapter.
 - (c) Providing written comments or testimony on rules to the governor's regulatory review council during the mandatory sixty-day comment period as provided in article 5 of this chapter.
7. Is entitled to have an agency not base a licensing decision in whole or in part on licensing conditions or requirements that are not specifically authorized by statute, rule or state tribal gaming compact as provided in section 41-1030, subsection B.
8. Is entitled to have an agency not make a rule under a specific grant of rulemaking authority that exceeds the subject matter areas listed in the specific statute or not make a rule under a general grant of rulemaking authority to supplement a more specific grant of rulemaking authority as provided in section 41-1030, subsection C.
9. May allege that an existing agency practice or substantive policy statement constitutes a rule and have that agency practice or substantive policy statement declared void because the practice or substantive policy statement constitutes a rule as provided in section 41-1033.
10. May file a complaint with the administrative rules oversight committee concerning:
 - (a) A rule's, practice's or substantive policy statement's lack of conformity with statute or legislative intent as provided in section 41-1047.
 - (b) An existing statute, rule, practice alleged to constitute a rule or substantive policy statement that is alleged to be duplicative or onerous as provided in section 41-1048.
11. May have the person's administrative hearing on contested cases and appealable agency actions heard by an independent administrative law judge as provided in articles 6 and 10 of this chapter.

12. May have administrative hearings governed by uniform administrative appeal procedures as provided in articles 6 and 10 of this chapter and may appeal a final administrative decision by filing a notice of appeal pursuant to title 12, chapter 7, article 6.
 13. May have an agency approve or deny the person's license application within a predetermined period of time as provided in article 7.1 of this chapter.
 14. Is entitled to receive written notice from an agency on denial of a license application:
 - (a) That justifies the denial with references to the statutes or rules on which the denial is based as provided in section 41-1076.
 - (b) That explains the applicant's right to appeal the denial as provided in section 41-1076.
 15. Is entitled to receive information regarding the license application process before or at the time the person obtains an application for a license as provided in sections 41-1001.02 and 41-1079.
 16. May receive public notice and participate in the adoption or amendment of agreements to delegate agency functions, powers or duties to political subdivisions as provided in section 41-1026.01 and article 8 of this chapter.
 17. May inspect all rules and substantive policy statements of an agency, including a directory of documents, in the office of the agency director as provided in section 41-1091.
 18. May file a complaint with the office of the ombudsman-citizens aide to investigate administrative acts of agencies as provided in chapter 8, article 5 of this title.
 19. Unless specifically authorized by statute, may expect state agencies to avoid duplication of other laws that do not enhance regulatory clarity and to avoid dual permitting to the extent practicable as prescribed in section 41-1002.
 20. May have the person's administrative hearing on contested cases pursuant to title 23, chapter 2 or 4 heard by an independent administrative law judge as prescribed by title 23, chapter 2 or 4.
 21. Pursuant to section 41-1009, subsection E, may correct deficiencies identified during an inspection unless otherwise provided by law.
- B. The enumeration of the rights listed in subsection A of this section does not grant any additional rights that are not prescribed in the sections referenced in subsection A of this section.
- C. Each state agency that conducts audits, inspections or other regulatory enforcement actions pursuant to section 41-1009 shall create and clearly post on the agency's website a small business bill of rights. The agency shall create the small business bill of rights by selecting the applicable rights prescribed in this section and section 41-1009 and any other agency-specific statutes and rules. The agency shall provide a written document of the small business bill of rights to the authorized on-site representative of the regulated small business. In addition to the rights listed in this section and section 41-1009, the agency notice of the small business bill of rights shall include the process by which a small business may file a complaint with the agency employees who are designated to assist members of the public or regulated community pursuant to section 41-1006. The notice must provide the contact information of the agency's designated employees. The agency notice must also state that if the regulated person has already made a reasonable effort with the agency to resolve the problem and still has not been successful, the regulated person may contact the office of ombudsman-citizens aide.



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

HAZARDOUS WASTE UNIT
COMPLIANCE CHECKLIST

Hazardous Waste Permit (LTF # 72437)

University of Arizona – Page Trowbridge Ranch Landfill

EPA ID No. AZD 980 665 814

This checklist is provided as a tool for permit holders and ADEQ staff to have a consistent understanding of significant compliance expectations under this permit. This checklist is designed to be easy to read and follow. This list does not include every permit condition and permit holders should ensure they understand the full requirements of their permit. This list does not supplant or supersede any legal requirement and is not binding on the permit holder or ADEQ staff.

FACILITY NAME: Page Trowbridge Ranch Landfill

EPA ID NUMBER: AZD 980 665 814

PLACE ID NUMBER: 3166

STREET ADDRESS: T9S, R14E, S½ of Section 27 and N½ of S34, Gila and Salt River
Base & Meridian; Lat 32° 36' 50" N, Long 110° 53' 30" W

CITY/STATE/ZIP: Pinal County, AZ

TELEPHONE NUMBER: (520) 621-3706

MAILING ADDRESS: University of Arizona, Risk Management Services
P.O. Box 210300
Tucson, AZ 85721-0300

Inspection

Date: 4/22/2020

Date of Last Inspection: 4/17/2019

NOTE: Any omissions in this report and any accompanying notices shall not be construed as a determination of compliance with applicable regulations. Any regulatory citations to 40 CFR are as adopted by the Arizona Administrative Code, A.A.C. R18-8-201 *et seq.* Photographs available upon request.

Hazardous Waste Compliance Checklist

Page Trowbridge Ranch Landfill

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From 1962 to February 1, 1986, University of Arizona (UA) used Page Trowbridge Ranch Landfill (PTRL) to dispose of low-level radioactive and chemical wastes generated by laboratories at the UA, NAU, ASU, and Veterans Hospital in Tucson. The PTRL site occupies a total of 3.25 acres and consists of two units: Unit A (northern unit) measures 200 feet by 200 feet, and Unit B (southern unit) measures 200 feet by 500 feet. In both units, wastes were placed into individual cells (pits) that were approximately 15 feet deep.

Disposal operations began at Unit B, which from early 1960's received and maintained approval from the Arizona Atomic Energy Commission for disposal of low-level radioactive laboratory wastes. Disposal of mixed wastes at Unit B started in late 1960's, and continued to 1986. Chemical waste disposal cells at Unit B were first used as open neutralization and burn pits; subsequently, they were used for direct burial of chemicals in one- and five-gallon containers (bottles, cans, boxes, bags) and 55-gallon drums packed with adsorbent materials (lab packs). In 1982, Unit A, which was used only for disposal of chemical wastes, replaced Unit B for disposal of hazardous waste only. The unit was designed and operated in accordance with RCRA standards for landfills. The disposal cells were individually double-lined with a chemically resistant synthetic liner. Wastes were received in sealed, 55-gallon drums (DOT 17C). These drums were placed into the cells in single layers, sealed with the plastic liner, and covered with soil. Recordkeeping of wastes disposed in PTRL began in 1978. Based on manifests and earlier disposal records, a total of 80 tons of original containers and 200 tons of lab packs were disposed. This inventory does not include the radioactive wastes or undocumented chemical wastes. The chemical wastes consisted primarily of solvents, ignitable liquids, acids bases, heavy metals, pesticides, and photographic compounds. The landfill was closed in August 1997, in accordance with an approved RCRA closure plan and amendments. Final closure included the following:

- Construction of a single monolithic earthen cover consisting of a 24-inch subgrade with two layers of geogrid; a 24-inch soil infiltration barrier; a 200-mil geonet; and a 24-inch vegetative soil cover.
- Installation of a 6-ft high chain link fence with barbed wire on top;
- Construction of a road network to provide easy access to the facility;
- Construction of storm water channels, and Installation of 36-inch x 22-inch corrugated metal pipe-arch culverts for storm water management;

Following landfill closure, investigations were conducted in 2002, 2003, 2005, and 2007 to evaluate potential impacts of the landfill on subsurface soil, soil vapor, and groundwater in the immediate vicinity of the landfill. The investigations noted that organic vapors were migrating from the landfill cells. In 2004 and 2005, UA submitted workplans for the installation of a soil vapor extraction system located between landfill cells A and B, to remove vapors from the vadose zone. The system commenced operations in June 2006. The calibrated model of vapor diffusion over the history of the landfill operation indicates that with implementation of a soil-vapor extraction system, soil vapor concentrations would likely decline and stabilize in approximately 10 years.

A post-closure permit application was submitted in December 1997, and was approved by ADEQ on November 6, 2001. The permit and subsequent renewals established a 30-year post-closure period for maintenance of PTRL. Post-closure care includes:

- Inspection and maintenance of the covers of the closed landfill unit – periodic inspections are performed to monitor final cover integrity, erosion, and woody vegetation growth. Maintenance and repair is performed at the time of inspection or as soon as practicable to original final cover specifications and conditions.
- Inspection and maintenance activities – Preventative and corrective maintenance and repair procedures are performed on the perimeter fence, access roads, warning signs, monitor wells, drainage control systems, survey monuments, soil vapor extraction system, and closed landfill unit vegetative covers; Inspection of these items is performed quarterly.
- Groundwater and soil vapor monitoring and reporting – a groundwater detection monitoring plan is implemented to periodically collect and analyze groundwater and soil vapor samples from on-site monitoring wells and monitoring points. The measurement of groundwater elevations and implementation of groundwater detection monitoring at the on-site monitoring wells is performed semiannually.

[Click here to enter text.](#)

Physical Inspection

Observations [Top](#)

On April 22, at 8:30 am, ADEQ compliance officers, David Janke and Kalie Rumaner, and ADEQ Permit Writer, Mary Cottrell met EHS Manager, Jeff Christensen at PTRL. The spring groundwater-monitoring event occurred at the on-site monitoring wells during the inspection (Photo #7). At the time of the inspection, ADEQ observed erosion on the east side slope of Cell B (Photos #20-22). No action will result at this time. However, the final cover integrity damages must be repaired prior to the next scheduled inspection per the Permit, Part II, B.1(a).

Key: C = In Compliance N = Not in Compliance N/A = Not Applicable P = Pending

Site Security [Top](#)

1. Are the facility's security/safety features listed below in good shape:

- Gates
- Locks
- Fence
- Signage

NOTES: "In good shape" means:

- Verify that the gates allow ease of access; verify that there are no gaps in or under the gate that would allow unauthorized access to the facility; verify that the barbed wire is uncut and not bent;
- Verify that the locks work;
- Verify that no portion of the fence slumps and that the fencing supports appear to be straight ; that the barbed wire strands are not cut or bent; verify that there are no holes or gaps in the fence itself or that there are no gaps under the fence resulting from burrowing or stormwater flow so as to allow for unauthorized access to the facility;
- Verify that signage is present at the gate and appears along each side of the border/security fence with lettering that is readable at 25 feet.

Permit Part II / Permit Attachment B App B-1 , Permit Attachment D

Comments: On the east side of the fence, ADEQ observed a small gap in the fence. The gap was fixed at the time of the inspection (Photos #23 & #24).

C: N: N/A: P:

Preparedness & Prevention [Top](#)

<p>1. Does the permittee have available the following required equipment to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment:</p> <ul style="list-style-type: none"> • Communications system (e.g., range radio, cell phone) • Device such as a telephone (e.g., landline phone box) <p>40 CFR § 264.32 / Permit Attachment F</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>2. Are portable fire extinguishers stored at the soil vapor extraction system? Are they fully charged? Have they been inspected within the past year?</p> <p>40 CFR § 264.33 / Permit Attachment F</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>

Post Closure Care [Top](#)

<p>1. Does the access road leading to the facility allow ease of access?</p> <p>NOTE: Verify that the access road (i.e., not including Willow Springs Road) is not washed out or obstructed so as to restrict access by personnel or emergency services.</p> <p>Permit Part II / Permit Attachment B</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>2. Are the roads onsite in good condition and free of vegetation?</p> <p>Permit Part II / Permit Attachment B</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>3. Are the following structures free of damage, erosion and woody vegetation growth?</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Cell A Cover <input checked="" type="checkbox"/> Cell A Side slope <input checked="" type="checkbox"/> Cell B Cover <input type="checkbox"/> Cell B Side slope <p>Permit Part II / Permit Attachment B</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>Comments: <u>On the east side of Cell B, erosion was observed (Photos #20-22).</u></p>	
<p>4. Are the survey monuments visible with no visible evidence of tampering?</p> <p>Permit Part II / Permit Attachment B</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>

Hazardous Waste Satellite Accumulation Area [Top](#)

<p>1. Are all hazardous waste satellite accumulation containers:</p> <ul style="list-style-type: none"> • Located at or near point of initial generation? • Under the direct control of operator generating the waste? <p>40 CFR § 262.34(c)(1)</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>
<p>2. Are all hazardous waste satellite accumulation containers at or below the 55-gallons limit (or 1-quart of acute hazardous waste) for any one waste stream at any one work station/location?</p> <p>40 CFR § 262.34(c)(1)</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>
<p>3. Are all hazardous waste satellite accumulation container (s) marked with the words "Hazardous Waste" or other words that identify the contents of the container(s)?</p> <p>40 CFR § 262.34(c)(1)(ii)</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>

Hazardous Waste Satellite Accumulation Area [Top](#)

<p>4. Are all hazardous waste satellite accumulation containers closed? Evidence of:</p> <ul style="list-style-type: none"> • Tight fitting lids • Vapor tight/liquid tight • Roll-off tarps secured <p>No evidence of:</p> <ul style="list-style-type: none"> • Lid not secured or missing • Gaskets, lid, bung, vent; damaged, missing • Ring missing • Ring not secured & bolted • Funnel not screwed in tight • Funnel lid not tight, closed • Open/loose bung or vent • Inappropriate vent, flash arrester, vacuum breaker, pressure relief <p>40 CFR § 262.34 (c)(1)(i)/40 CFR § 265.173(a) / A.A.C. R18-8-262/A.A.C. R18-8-270(B)(1)</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>
<p>5. Are all hazardous waste satellite accumulation containers in good condition? No evidence of:</p> <ul style="list-style-type: none"> • Leaking, spilling, off-gassing • Punctured, holes, broken • Metal corrosion, rust, pitting, thinning; inside & outside • Plastic cut, gouged, heat deformed, softened, thinned • Bulging, creasing, & denting (not restorable to original shape) • Metal fatigue from fire, bending, wear • Chimes separated, bent, open, damaged, unsealed • Body weld open, bent, damaged, defective • Rolling rings dented, creased damaged <p>Note: If not in good condition, transfer the hazardous waste from this container to a container that is in good condition or manage the waste in some other way that complies with the requirements.</p> <p>40 CFR § 262.34 (c)(1)(i)/40 CFR § 265.171</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>
<p>6. Is the hazardous waste satellite accumulation container or liner compatible with the waste? (ex. Acids/water solutions in metal drums)</p> <p>40 CFR § 262.34 (c)(1)(i)/40 CFR § 265.172</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>
<p>7. If 55-gallons/1-quart of hazardous waste is exceeded, are the hazardous waste satellite accumulation containers moved to the central accumulation area within 3 days?</p> <p>40 CFR § 262.34(c)(2)</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>
<p>8. Are hazardous waste satellite accumulation containers marked with the accumulation start date as the date the excess amount began accumulating?</p> <p>40 CFR § 262.34(c)(2)</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>

Run-on / Run-off Controls [Top](#)

<p>1. Are the following structures in good shape?</p> <ul style="list-style-type: none"> <input type="checkbox"/> Culvert Crossing #1 (located between Cell A and Cell B) <input type="checkbox"/> Culvert Crossing #2 (located on the southeastern end of Cell B) <input type="checkbox"/> 18" CMP Culvert (east of Cell B at the border/security fence) <input type="checkbox"/> 18" CMP Culvert (south of Cell B at the border/security fence) <input type="checkbox"/> Cell A Swales (e.g., ditches and rip-rap) <input type="checkbox"/> Cell B Swales (e.g., ditches, rip-rap, and stormwater depression) <p>NOTES "In good shape" means:</p> <ul style="list-style-type: none"> • Gates on 18" CMP culverts must be locked, unobstructed/free of debris. Interior channels of culverts must be clear so as to allow the smooth flow of stormwater. Sediment filters must be staked in place; • Culvert crossings must be free of debris, and interior channels must be clear so as to allow the smooth flow of stormwater. • Swales must not be eroded, damaged, or blocked with debris or excessive vegetation. <p>Permit Part II / Permit Attachment B</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
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Corrective Action - Interim Measures [Top](#)

1. Are the following structures used for Interim Measures in good shape?

- GAC Adsorbers (2)
- Solar panel Arrays (2)
- Extraction Blower, Motor, Belt Drive
- Injection Blower, Motor, Belt Drive
- Control Panel / Charge Controller / Load Controller / Inverter
- Battery Array
- Piping
- Condensate Separators (KO-1 and KO-2)
- SGS Condensate Sump

C: N: N/A: P:

NOTE: "In good shape" means visually check for obvious physical damage.

Permit Part III and Permit Attachment C

2. Are the soil vapor monitoring enclosures in good shape?

- MW #2
- MW #5
- Well SGS
- Probe SGS-SP
- Probes SGD -SP and -MP (collocated)
- Probe SGD-DP (aka SGD-2)
- Well SGD (used for air injection)

C: N: N/A: P:

NOTE: "In good shape" means visually check for obvious physical damage.

Permit Part III / Permit Attachment C

Groundwater Monitoring [Top](#)

1. Are the groundwater monitoring well enclosures in good shape?

- MW #2
- MW #3
- MW #4
- MW #5

C: N: N/A: P:

NOTE: "In good shape" means free of deterioration and/or vandalism, are the well enclosures locked? Are the ADWR IDs and the MW designations present and readable?

Permit Part III/Permit Attachment B

Comments:

Jeffrey Christensen, the EHS Manager, stated PTRL plans to replace the concrete slabs at all monitoring wells.

2. Does the well pumping assembly operate properly?

- MW #2
- MW #3
- MW #4
- MW #5

C: N: N/A: P:

NOTE: Verify that well pumping assembly is operating properly only if permittee is conducting groundwater monitoring event.

Permit Part III/Permit Attachment B

3. Are the sounding tubes clear?

- MW #2
- MW #3
- MW #4
- MW #5

C: N: N/A: P:

NOTE: Verify that sounding tubes are clear only if permittee is conducting groundwater monitoring event.

Permit Part III/Permit Attachment B

Records Review

ADEQ Fees and Annual Report [Top](#)

<p>1. Has the permittee registered annually with ADEQ and paid an annual registration fee?</p> <p>NOTE: TSDF registration is due March 1st of each year.</p> <p>A.R.S. 49-929.A & B/ A.A.C. R18-8-260.</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>2. Has the permittee submitted a timely Facility Annual Report to ADEQ?</p> <p>NOTE: The report must be accurate and complete as per 40 CFR § 264.75.</p> <p>A.A.C. R18-8-264.I, Permit Part I.E.12</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>

Operating Record [Top](#)

<p>1. Does the permittee keep a copy of the most up-to-date Operating Record (at UA Risk Management)? Does the facility keep Operating Records for 3 years? The Operating Record must include:</p> <p><input type="checkbox"/> (a) Most recent copy of the Post-Closure Plan;; [A.A.C. R18-8-264.A (40 CFR 264.73(b)(1) Permit Part I.G, Permit Attachment B]</p> <p><input type="checkbox"/> (b) Most recent copy of the Contingency Plan; [A.A.C. R18-8-264.A (40 CFR 264.73(b)(2)), Permit Part I.G, Permit Attachment F]</p> <p><input type="checkbox"/> (c) Personnel training documents; [A.A.C. R18-8-264.A (40 CFR 264.73(b)(3)), Permit Part I.G, Permit Attachment E]</p> <p><input type="checkbox"/> (d) The summary reports and details of all incidents that require implementing the Contingency Plan (this may be a written record or an electronic record with written report provided upon request by the Director's authorized representative); [A.A.C. R18-8-264.A (40 CFR 264.73(b)(4))]</p> <p><input type="checkbox"/> (e) The records and results of inspections (this may be a written or an electronic record, however electronic records of any checklist must be identical electronic images of the original written record); [A.A.C. R18-8-264.A (40 CFR 264.73(b)(5)), Permit Part I.G]</p> <p><input type="checkbox"/> (f) Most recent copy of the EGDMP and EGDMP QAPP; [A.A.C. R18-8-264.A (40 CFR 264.73(b)(6)), Permit Part I.E.9, Permit Part I.G, Permit Attachments G and H]</p> <p><input type="checkbox"/> (g) The monitoring, testing or analytical data, and corrective action (this may be a written record or an electronic record with written report provided upon request by the Director's authorized representative); [A.A.C. R18-8-264.A (40 CFR 264.73(b)(6)), Permit Part I.E.9, Permit Part I.G] [A.A.C. R18-8-264.A (40 CFR 264.73(b)(9))]</p> <p>40 CFR § 264.73 / Permit Part II.J.1</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
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Waste Analysis [Top](#)

<p>1. Do waste analyses / determinations appropriately characterize wastes generated in association with the post-closure plan for purposes of proper storage, treatment and disposal ? Waste determinations may include:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • Lists of wastes produced • Process descriptions • Safety Data sheets • Waste Profile Sheets </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • Raw analytical data and QA/QC documents • Sampling plans • Analytical results </td> </tr> </table> <p>NOTES: Anticipated generated wastes associated with the Permit may include, but are not limited to:</p> <ul style="list-style-type: none"> • contaminated soils, contaminated PPE, and investigative-derived wastes resulting from site-wide corrective actions, and • liquids removed from the condensate collection drum, condensates from KO-1, or KO-2, and GAC generated at the interim measures response (i.e., SVE) system. <p>40 CFR § 264.13 / Permit Part II / Permit Part III and Permit Attachment G / Permit Part IV and Permit Attachment I / Permit Attachment C</p>	<ul style="list-style-type: none"> • Lists of wastes produced • Process descriptions • Safety Data sheets • Waste Profile Sheets 	<ul style="list-style-type: none"> • Raw analytical data and QA/QC documents • Sampling plans • Analytical results 	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<ul style="list-style-type: none"> • Lists of wastes produced • Process descriptions • Safety Data sheets • Waste Profile Sheets 	<ul style="list-style-type: none"> • Raw analytical data and QA/QC documents • Sampling plans • Analytical results 		

Contingency Plan [Top](#)

<p>1. Is the Contingency Plan (CP) maintained at the Risk Management Office, and is available to facility personnel?</p> <p>40 CFR § 262.53(a) / A.A.C. R-18-8-270(B)(1) / Permit Part I.G / Permit Part II.I / Permit Attachment F</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
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Contingency Plan [Top](#)

<p>2. Have there been changes to the CP, and has it been submitted as a Permit modification in accordance with 40 CFR 270.42 ?</p> <p>40 CFR § 264.52(e), and 264.54 / Permit Part II.I / Permit Attachment F</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>3. Does the CP include an evacuation plan? Are evacuation routes accurately designated in contingency plan?</p> <p>NOTE: The evacuation plan must include signals to begin evacuation, evacuation routes, and alternate evacuation routes.</p> <p>40 CFR § 265.52(f) / Permit Part II.I / Permit Attachment F</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>4. Does the CP include an updated list of required emergency equipment at the facility, including locations, descriptions and relevant capabilities?</p> <p>40 CFR § 264.52(e) / Permit Part II.I / Permit Attachment F</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>5. Does the CP include the names, addresses, and phone numbers (office and home) of all persons qualified as emergency coordinators?</p> <p>NOTE: The primary coordinator must be listed first, and others must be listed in the order in which they will assume responsibility as alternates.</p> <p>40 CFR § 264.52(d) / Permit Part II.I / Permit Attachment F</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>6. Is there, at all times, an emergency coordinator on the premises or on call (able to reach the facility within a short period of time, e.g., two hours)?</p> <p>NOTES: The emergency coordinator must be thoroughly familiar with:</p> <ul style="list-style-type: none"> • All aspects of the contingency plan. • All operations and activities at the facility. • Location and characteristics of all waste. • Location of all records. • Layout of the entire facility. <p>The emergency coordinator must have the authority to commit the resources needed to carry out the CP.</p> <p>40 CFR § 264.55 / Permit Part II.I / Permit Attachment F</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>7. Did the permittee submit the CP and its updates to all police and fire departments, and State and local emergency response teams that may be called upon during an emergency? The plan must specify names of the entities it is being submitted to. The facility must have copies of the transmittal letters.</p> <p>40 CFR § 264.53(b) / Permit Part II.I / Permit Attachment F</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>8. Has the facility had a release, fire or explosion and/or implemented the CP ? Did the facility immediately notify the ADEQ Emergency Response Unit ((602) 771-2330 or (800) 234-5677) and either the on-scene government coordinator for the geographical area or the National Response Center (800) 424-8802 ? Responses may be made for copies of 15-day written reports and operating logs with records of spills and incidents, including those requiring fire department or 9-1-1 assistance.</p> <p>The reports must include:</p> <ul style="list-style-type: none"> • Name, address, and telephone number of the owner or operator; • Name, address, and telephone number of the facility; • Date, time, and type of incident (e.g., fire, explosion); • Name and quantity of material(s) involved; • The extent of injuries, if any, • An assessment of actual or potential hazards to human health or the environment, where this is applicable; and • Estimated quantity and disposition or recovered material that resulted from the incident. <p>40 CFR § 264.56 / Permit Part II.I / Permit Attachment F</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>

Personnel Training [Top](#)

<p>1. Does the permittee maintain the following documents and records at the facility:</p> <ul style="list-style-type: none"> • The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job (d)(1); • A written job description for each position. This description must include the requisite skill, education, or other qualifications, and duties of facility personnel assigned to each position; • A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position; • Records that document that the required training or job experience has been given to, and completed by, facility personnel. <p>NOTE: Training records on current personnel must be kept until closure of the facility. Training records on former employees must be kept for at least three years from the date the employee last worked at the facility.</p> <p>40 CFR § 264.16 / A.A.C. R18-8-270(B)(1) / Permit Part II.H / Permit Attachment E</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>2. Did facility personnel successfully complete a program of classroom instruction or on the job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of 40 CFR § 265.16 for handling hazardous waste?</p> <p>NOTE: This program must be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.</p> <p>40 CFR § 264.16(a) / A.A.C. R18-8-270(B)(1) / Permit Part II.H / Permit Attachment E</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>3. Did facility personnel successfully complete the training program within six months after the date of their employment or assignment to a facility, or to a new position at a facility, whichever is later?</p> <p>NOTE: Employees hired after the effective date of these regulations must not work in unsupervised positions until they have completed the training requirements.</p> <p>40 CFR § 264.16(b) / A.A.C. R18-8-270(B)(1) / Permit Part II.H / Permit Attachment E</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>4. Did facility personnel attend annual review of the initial training?</p> <p>40 CFR § 264.16(c) / A.A.C. R18-8-270(B)(1) / Permit Part II.H / Permit Attachment E</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>

Inspection Records [Top](#)

<p>1. Does the permittee maintain quarterly inspection logs of the facility structures ?</p> <p>Do the inspections address:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • Signage • Communication systems • Landfill covers • Survey monuments </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • Gates and locks • Drainage structures • Perimeter fencing • Access roads </td> </tr> </table> <p>40 CFR § 264.174 / Permit Part II.G / Permit Part II.J / Permit Attachment B</p>	<ul style="list-style-type: none"> • Signage • Communication systems • Landfill covers • Survey monuments 	<ul style="list-style-type: none"> • Gates and locks • Drainage structures • Perimeter fencing • Access roads 	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<ul style="list-style-type: none"> • Signage • Communication systems • Landfill covers • Survey monuments 	<ul style="list-style-type: none"> • Gates and locks • Drainage structures • Perimeter fencing • Access roads 		
<p>2. Are all written logs for the facility structures kept for three years from the date of the inspection, filled in after each inspection, and include the following information:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <input type="checkbox"/> Inspection date <input type="checkbox"/> Inspector's name <input type="checkbox"/> Inspector's signature </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <input type="checkbox"/> Observation remarks <input type="checkbox"/> Corrections made <input type="checkbox"/> Date corrections completed </td> </tr> </table> <p>NOTE: If deficiencies are found, then facility may be found in non-compliance with duty to inspect, log, keep records, and train staff.</p> <p>40 CFR § 264.174 / Permit Part II.G / Permit Part II.J / Permit Attachment B</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Inspection date <input type="checkbox"/> Inspector's name <input type="checkbox"/> Inspector's signature 	<ul style="list-style-type: none"> <input type="checkbox"/> Observation remarks <input type="checkbox"/> Corrections made <input type="checkbox"/> Date corrections completed 	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<ul style="list-style-type: none"> <input type="checkbox"/> Inspection date <input type="checkbox"/> Inspector's name <input type="checkbox"/> Inspector's signature 	<ul style="list-style-type: none"> <input type="checkbox"/> Observation remarks <input type="checkbox"/> Corrections made <input type="checkbox"/> Date corrections completed 		
<p>3. Does the permittee keep weekly inspection logs of the Interim Measures (SVE) System</p> <p>Do the inspections address:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • Pitot tubes • Presence of condensate in condensate separators (October through April) • Grounding cables for the solar array and electrical systems </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • Blowers and blower motors • Electrical system • Battery array </td> </tr> </table> <p>40 CFR § 264.174 / Permit Part II.G / Permit Part II.J / Permit Attachment B / Permit Attachment C</p>	<ul style="list-style-type: none"> • Pitot tubes • Presence of condensate in condensate separators (October through April) • Grounding cables for the solar array and electrical systems 	<ul style="list-style-type: none"> • Blowers and blower motors • Electrical system • Battery array 	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<ul style="list-style-type: none"> • Pitot tubes • Presence of condensate in condensate separators (October through April) • Grounding cables for the solar array and electrical systems 	<ul style="list-style-type: none"> • Blowers and blower motors • Electrical system • Battery array 		

Inspection Records [Top](#)

<p>4. Does the permittee keep quarterly inspection logs of the Interim Measures (SVE) System Do the inspections address:</p> <ul style="list-style-type: none">Blower belt drives (PDB-1 and PDB-2)General blower functionPanel arrayVacuum gaugesPipingBlower motors (brushes) <p>40 CFR § 264.174 / Permit Part II.G / Permit Part II.J / Permit Attachment B / Permit Attachment C</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>3. Are all written logs for the Interim Measures (SVE) System kept for three years from the date of the inspection, filled in after each inspection, and include the following information:</p> <ul style="list-style-type: none"><input type="checkbox"/> Inspection date<input type="checkbox"/> Inspector's name<input type="checkbox"/> Observation remarks including corrections made <p>NOTE: If deficiencies are found, then facility may be found in non-compliance with duty to inspect, log, keep records, and train staff.</p> <p>40 CFR §264.174 / Permit Part II.G / Permit Part II.J / Permit Attachment B / Permit Attachment C</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>4. Does the facility inspect the GAC on a semi-annual basis ? Does the inspector collect a sample of the process stream vapor from the sampling port located in-between the lead and lag GAC adsorber unit?</p> <p>40 CFR § 264.174 /Permit Part II/ Permit Attachment B / Permit Attachment C</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>

Groundwater Monitoring Records [Top](#)

<p>1. Does the facility have copies of groundwater monitoring analytical data? Note: See also Operating Record, item (g)</p> <p>40 CFR § 264.73 / A.A.C. R18-8-264(A) / Permit Part I.G / Permit Part III.E / Permit Attachment G</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
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Soil Vapor Monitoring Records [Top](#)

<p>1. Does the facility have copies of soil vapor monitoring analytical data? Note: See also Operating Record, item (g)</p> <p>Permit Part I.G / Permit Part III.D / Permit Part IV.I.4 / Permit Attachment G</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
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Notifications [Top](#)

<p>1. Has the permittee notified ADEQ in writing of new SWMUs or AOCs? Permit Part IV.E.1</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>
<p>2. Has the permittee reported issues of noncompliance which may endanger human health or the environment as soon as possible or within twenty-four (24) hours of becoming aware of the circumstances? Permit Part I.E.12 / Permit Part IV.F.1</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>

Additional Comments [Top](#)

<p>Click here to enter text.</p>

ADEQ Hazardous Waste Inspection Photo Log

Date of Inspection: 4/22/2020

Facility Information

Facility Name: University of Arizona - Page-Trowbridge Ranch Landfill

Facility Location: Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Key Inspectors

Lead Inspector: Kalie Rumaner

Photographer: David R. Janke

University of Arizona - Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: David R. Janke

Date: 4/22/2020



Photo 1

Gate and entrance to the University of Arizona's Page-Trowbridge Ranch Landfill showing signage.



Photo 2

Solar Array SVE System-
looking from northeast



Photo 3

Solar Array SVE System-
from south-southwest on
top of Cell B cover

University of Arizona - Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: David R. Janke

Date: 4/22/2020



SGS-P injection access

Photo 4



SGD-DP Soil Vapor Sampling Well

Photo 5



SGD-DP Soil Vapor Sampling- label on side

Photo 6

University of Arizona - Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: David R. Janke

Date: 4/22/2020



Monitoring Well #3 as it is being purged

Photo 7



Monitoring Well #2

Photo 8



Monitoring Well #2- label

Photo 9

University of Arizona - Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: David R. Janke

Date: 4/22/2020



Photo 10

Monitoring Well #4- Cracks in cement foundation. Jeff Christensen stated PTRL has plans to replace concrete slabs under all monitoring wells.



Photo 11

Marker Monument- Near main entrance gate



Photo 12

Marker Monument- Along north fence line

University of Arizona - Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: David R. Janke

Date: 4/22/2020



Photo 13

Marker Monument- Near Well #2



Photo 14

Marker Monument- South of Cell B



Photo 15

Marker Monument- Southwest of Cell B

University of Arizona - Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: David R. Janke

Date: 4/22/2020



Photo 16

Cell A – Hazardous waste waste from southern base



Photo 17

Cell A cover looking north from southern edge



Photo 18

Cell B – Mixed waste from northern base with rip-rap in foreground

University of Arizona - Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: David R. Janke

Date: 4/22/2020



Cell B cover looking east from western edge

Photo 19



Main eroded surface of east slope of Cell B

Photo 20



Eroded surface of east slope of Cell B north of main eroded area

Photo 21

University of Arizona - Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: David R. Janke

Date: 4/22/2020



Eroded surface from east slope of Cell B looking from ground level

Photo 22



Animal burrow under east side of fence line

Photo 23



Same animal burrow under east side fence line (Photo #20) fixed at the time of the inspection

Photo 24

University of Arizona - Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: David R. Janke

Date: 4/22/2020



Photo 25

Animal burrows under north side fence line going under cement barrier



Photo 26

Rip-rap north of Cell A from northern edge of Cell A cover



Photo 27

Rip-rap southeast of Cell B from southeast corner of Cell B cover

University of Arizona - Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: David R. Janke

Date: 4/22/2020



North side view of culvert running under road between cells A and B showing rip-rap

Photo 28



South side view of culvert running under road between cells A and B showing rip-rap

Photo 29



Culvert and rip-rap under road approaching east side of Cell B from the top of Cell B cover

Photo 30

University of Arizona - Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: David R. Janke

Date: 4/22/2020



Photo 31

Culvert and rip-rap along south fence line view from west



Photo 32

Culvert along south fence line showing cover grate



Photo 33

Culvert and rip-rap along west fence line view from south

University of Arizona - Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: David R. Janke

Date: 4/22/2020



Culvert and rip-rap along west fence line view from north

Photo 34



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY FIELD INSPECTION EXIT DEBRIEFING

Site Name/ID No(s): Page Trowbridge Ranch Landfill Inspection Date: 4/22/2020

Location: Pinal County Sec 27-33, T9S, R14E, Oracle Junction, AZ 85721-0300 Environmental Program(s): Hazardous Waste

You have just received an inspection conducted to evaluate compliance with the Arizona Revised Statutes, Title 49; the Arizona Administrative Code; and applicable permits/licenses. The following is intended to summarize potential deficiencies noted during the inspection, items you should consider for follow up action, or additional information requested by the inspector that is necessary to make a compliance determination. Be advised that additional reports and correspondence may be forthcoming from ADEQ. Any omissions in this exit debriefing shall not be construed as a determination of compliance with applicable laws and rules.

Please provide the following:

- **Photographic documentation that the erosion on the east side of Cell B is filled.**

Fixed at the time of the inspection:

- **Small animal burrow on east side of fence was filled.**

Recommendations:

- **ADEQ plans to provide additional assistance to PTRL to ensure the manifest from 8/2019 is uploaded to RCRA info.**

Additional areas of concern can be found on the back of this form

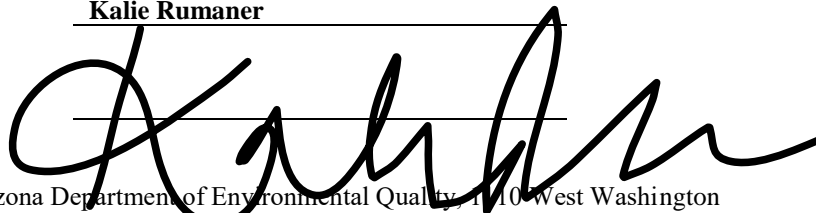
Facility Representative

Inspector

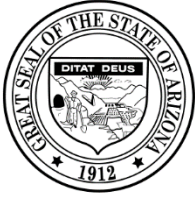
Name: Jeffrey Christensen

Name: Kalie Rumaner

Signature: 

Signature: 

Please submit your response to your inspector's attention at the Arizona Department of Environmental Quality, 1110 West Washington Street, Phoenix, Arizona 85007 or via email.



Douglas A. Ducey
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



Misael Cabrera
Director

HAZARDOUS WASTE INSPECTION REPORT COVER PAGE

Facility Name: Page-Trowbridge Ranch Landfill EPA ID#: AZD980665814 Physical Address: Latitude: 32.60694 / Longitude: 110.895976	Inspection Report ID No.: 367328 & 367333
	Date of Inspection: 4/14/2021
	Announced Inspection: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Responsible Party: University of Arizona - Department of Risk Management Mailing Address: Po Box 210300, Tucson, 85721	Reason for Inspection: <input checked="" type="checkbox"/> Routine Inspection <input type="checkbox"/> Follow-Up <input type="checkbox"/> Complaint Complaint No.: <input type="checkbox"/> Other: Virtual
Land Owner: Arizona Board of Regents (U of A) Mailing Address: 220 W 6th St, Tucson, AZ 85721	
On-Site Representative: Jeffrey Christensen Title: EHS Manager Phone: (520) 621-1790 Email: jgchrist@email.arizona.edu	
Lead Inspector: Mario Barrios Accompanied by: David R. Janke and Gav Orman	
ADEQ Follow-up Contact: Brandon Green Title: Hazardous Waste Compliance Officer Phone: (602) 771-0099 Email: green.brandon@azdeq.gov	
Results of Inspection: <input type="checkbox"/> No deficiencies were noted during the course of the inspection. No ADEQ action will result from this inspection. <input type="checkbox"/> Follow-up action is needed; please submit the requested documentation, which is detailed on the inspection report. <input checked="" type="checkbox"/> Potential deficiencies were noted during the course of the inspection. Additional correspondence regarding this inspection will be forthcoming. <input type="checkbox"/> Deficiencies were noted during the course of the inspection and all deficiencies were corrected at the time of the inspection. No ADEQ action will result from this inspection.	
Attachments: Notice of Inspection Rights Small Business Bill of Rights Inspection Checklist and Observations Photographic Log Exit Debriefing	

NOTICE OF INSPECTION RIGHTS

The ADEQ representative(s) identified above were present at the address listed above. Upon entry to the premises, the ADEQ representative(s) met with me, presented photo identification indicating that they are ADEQ employees and explained:

That the purpose of the inspection is to determine compliance with:

Arizona Revised Statutes: [Title 49 \(The Environment\)](#) – Chapter 5 (Hazardous Waste Disposal)

Arizona Administrative Code: [Title 18 \(Environmental Quality\)](#) – Chapter 8 (Hazardous Waste Management)

Code of Federal Regulations: [Title 40 - Parts 260 through 273](#)

Hazardous Waste Permit (if applicable):

Hazardous Waste Permit (LTF # 72437)

EPAID facility: AZD 980 665 814

That this inspection is conducted pursuant to the authority granted in Arizona Revised Statutes § 49-104(B)(8) and/or:

Arizona Revised Statutes § [49-144](#)

Arizona Revised Statutes § [41-1009](#)

That the state shall not be barred by the statutes of limitations of actions, according to [A.R.S. § 12-510](#), except as provided in [A.R.S. § 12-529](#) concerning certain claims based on navigability of watercourses. According to [28 U.S.C. § 2462](#), the U.S. government must commence an action within 5 years after the date the claim first accrued.

Possible applicability of Small Business Bill of Rights pursuant to Arizona Revised Statutes [§ 41-1001\(21\)](#)

There is no fee associated with this inspection.

Photos will be taken during the inspection.

I understand that I can accompany the ADEQ representative(s) on the premises, except during confidential interview.

I understand that I have right to, upon request:

- Copies of any original documents taken by the agency during the inspection.
- A split of any samples taken during the inspection if the split of any samples would not prohibit an analysis from being conducted or render an analysis inconclusive.
- Copies of any analysis performed on samples taken during the inspection.
- Copies of any documents to be relied on to determine compliance with licensure or regulatory requirements if the agency is otherwise permitted by law to do so.

I understand that:

- Each person who is interviewed by an ADEQ inspector during the inspection must be informed that:
 - 1) Statements made by the person may be included in the inspection report.
 - 2) That conversation with an agency inspector during the inspection are being tape recorded.
 - 3) Participation in an interview is voluntary, unless legally compelled to participate in the interview.
 - 4) The person is allowed at least twenty-four hours to review and revise any written witness statement that is drafted by the agency inspector which the agency inspector requests the person's signature.
 - 5) The agency inspector may not prohibit the regulated person from having an attorney or any other experts in their field present during the interview to represent or advise the regulated person.
 - 6) The agency inspector may not take any adverse action, treat the regulated person less favorably or draw any inference as a result of the regulated person's decision to be represented by an attorney or advised by any other experts in their field.

- That the information and documents provided to the agency inspector become a public record, the regulated person may redact trade secrets and proprietary and confidential information unless the information and documents are confidential pursuant to statute.

- If an administrative order is issued or a permit decision is made based on the results of the inspection, I have the right to appeal that administrative order or permit decision. I understand that my administrative hearing rights are set forth in [Arizona Revised Statutes: Title 41 \(State Government\)](#) – Chapter 6 (Administrative Procedure) Article 10 (Uniform Administrative Hearing Procedures) [41-1092.03](#) and my rights relating to an appeal of a final agency decision are found in [Arizona Revised Statutes: Title 41 \(State Government\)](#) – Chapter 6 (Administrative Procedure) Article 10 (Uniform Administrative Hearing Procedures) [41-1092.08](#)

Additional information:

- If I have any questions or concerns about this inspection, I may contact the person listed as the ADEQ Follow-up Contact on the front of this form.
- ADEQ Hazardous Waste Unit Manager (602) 771-0381 or toll free at (800) 234-5677.
- [ADEQ Community Liaison – Ombudsman](#) (602) 771-2288 or toll free at (800) 234-5677.
- The [Arizona Ombudsman Citizens' Aide](#) office at (602) 277-7292 or toll free at (800) 872-2879 (outside Phoenix metro area). [Arizona Revised Statutes: Title 41 \(State Government\)](#) – Chapter 8 (Agencies of the Legislative Department) Article 5 (Office of Ombudsman-Citizens Aide).
- If I have any questions concerning my rights to appeal an administrative order or permit decision, I may also contact ADEQ's Office of Administrative Counsel at (602) 771-2212 or toll free at (800) 234-5677.

While I have the right to refuse to sign this form, the ADEQ representatives may still proceed with the inspection.

By signing below I acknowledge that have read, understand, and discussed any questions or concerns with ADEQ representative(s) about the statutes.

Printed Name: Jeffrey Christensen

Date: 4/14/2021

Signature of Regulated Person or Authorized On-Site Representative

Printed Name: Mario Barrios

Signature of ADEQ Representative

- The regulated person or authorized on-site representative refused to sign.
- The regulated person or an authorized on-site representative was not present at the facility.

SMALL BUSINESS BILL OF RIGHTS

[A.R.S. 41-1001.01. Regulatory bill of rights; small businesses](#)

A. To ensure fair and open regulation by state agencies, a person:

1. Is eligible for reimbursement of fees and other expenses if the person prevails by adjudication on the merits against an agency in a court proceeding regarding an agency decision as provided in section 12-348.
2. Is eligible for reimbursement of the person's costs and fees if the person prevails against any agency in an administrative hearing as provided in section 41-1007.
3. Is entitled to have an agency not charge the person a fee unless the fee for the specific activity is expressly authorized as provided in section 41-1008.
4. Is entitled to receive the information and notice regarding inspections and audits prescribed in section 41-1009.
5. May review the full text or summary of all rulemaking activity, the summary of substantive policy statements and the full text of executive orders in the register as provided in article 2 of this chapter.
6. May participate in the rulemaking process as provided in articles 3, 4, 4.1 and 5 of this chapter, including:
 - (a) Providing written comments or testimony on proposed rules to an agency as provided in section 41-1023 and having the agency adequately address those comments as provided in section 41-1052, subsection D, including comments or testimony concerning the information contained in the economic, small business and consumer impact statement.
 - (b) Filing an early review petition with the governor's regulatory review council as provided in article 5 of this chapter.
 - (c) Providing written comments or testimony on rules to the governor's regulatory review council during the mandatory sixty-day comment period as provided in article 5 of this chapter.
7. Is entitled to have an agency not base a licensing decision in whole or in part on licensing conditions or requirements that are not specifically authorized by statute, rule or state tribal gaming compact as provided in section 41-1030, subsection B.
8. Is entitled to have an agency not make a rule under a specific grant of rulemaking authority that exceeds the subject matter areas listed in the specific statute or not make a rule under a general grant of rulemaking authority to supplement a more specific grant of rulemaking authority as provided in section 41-1030, subsection C.
9. May allege that an existing agency practice or substantive policy statement constitutes a rule and have that agency practice or substantive policy statement declared void because the practice or substantive policy statement constitutes a rule as provided in section 41-1033.
10. May file a complaint with the administrative rules oversight committee concerning:
 - (a) A rule's, practice's or substantive policy statement's lack of conformity with statute or legislative intent as provided in section 41-1047.
 - (b) An existing statute, rule, practice alleged to constitute a rule or substantive policy statement that is alleged to be duplicative or onerous as provided in section 41-1048.
11. May have the person's administrative hearing on contested cases and appealable agency actions heard by an independent administrative law judge as provided in articles 6 and 10 of this chapter.

12. May have administrative hearings governed by uniform administrative appeal procedures as provided in articles 6 and 10 of this chapter and may appeal a final administrative decision by filing a notice of appeal pursuant to title 12, chapter 7, article 6.
 13. May have an agency approve or deny the person's license application within a predetermined period of time as provided in article 7.1 of this chapter.
 14. Is entitled to receive written notice from an agency on denial of a license application:
 - (a) That justifies the denial with references to the statutes or rules on which the denial is based as provided in section 41-1076.
 - (b) That explains the applicant's right to appeal the denial as provided in section 41-1076.
 15. Is entitled to receive information regarding the license application process before or at the time the person obtains an application for a license as provided in sections 41-1001.02 and 41-1079.
 16. May receive public notice and participate in the adoption or amendment of agreements to delegate agency functions, powers or duties to political subdivisions as provided in section 41-1026.01 and article 8 of this chapter.
 17. May inspect all rules and substantive policy statements of an agency, including a directory of documents, in the office of the agency director as provided in section 41-1091.
 18. May file a complaint with the office of the ombudsman-citizens aide to investigate administrative acts of agencies as provided in chapter 8, article 5 of this title.
 19. Unless specifically authorized by statute, may expect state agencies to avoid duplication of other laws that do not enhance regulatory clarity and to avoid dual permitting to the extent practicable as prescribed in section 41-1002.
 20. May have the person's administrative hearing on contested cases pursuant to title 23, chapter 2 or 4 heard by an independent administrative law judge as prescribed by title 23, chapter 2 or 4.
 21. Pursuant to section 41-1009, subsection E, may correct deficiencies identified during an inspection unless otherwise provided by law.
- B. The enumeration of the rights listed in subsection A of this section does not grant any additional rights that are not prescribed in the sections referenced in subsection A of this section.
- C. Each state agency that conducts audits, inspections or other regulatory enforcement actions pursuant to section 41-1009 shall create and clearly post on the agency's website a small business bill of rights. The agency shall create the small business bill of rights by selecting the applicable rights prescribed in this section and section 41-1009 and any other agency-specific statutes and rules. The agency shall provide a written document of the small business bill of rights to the authorized on-site representative of the regulated small business. In addition to the rights listed in this section and section 41-1009, the agency notice of the small business bill of rights shall include the process by which a small business may file a complaint with the agency employees who are designated to assist members of the public or regulated community pursuant to section 41-1006. The notice must provide the contact information of the agency's designated employees. The agency notice must also state that if the regulated person has already made a reasonable effort with the agency to resolve the problem and still has not been successful, the regulated person may contact the office of ombudsman-citizens aide.



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY

HAZARDOUS WASTE UNIT
COMPLIANCE CHECKLIST

Hazardous Waste Permit (LTF # 72437)

University of Arizona – Page Trowbridge Ranch Landfill

EPA ID No. AZD 980 665 814

This checklist is provided as a tool for permit holders and ADEQ staff to have a consistent understanding of significant compliance expectations under this permit. This checklist is designed to be easy to read and follow. This list does not include every permit condition and permit holders should ensure they understand the full requirements of their permit. This list does not supplant or supersede any legal requirement and is not binding on the permit holder or ADEQ staff.

FACILITY NAME: Page Trowbridge Ranch Landfill

EPA ID NUMBER: AZD 980 665 814

PLACE ID NUMBER: 3166

STREET ADDRESS: T9S, R14E, S½ of Section 27 and N½ of S34, Gila and Salt River
Base & Meridian; Lat 32° 36' 50" N, Long 110° 53' 30" W

CITY/STATE/ZIP: Pinal County, AZ

TELEPHONE NUMBER: (520) 621-3706

MAILING ADDRESS: University of Arizona, Risk Management Services
P.O. Box 210300
Tucson, AZ 85721-0300

Inspection

Date: April 14, 2021

Date of Last Inspection: 4/22/2020

NOTE: Any omissions in this report and any accompanying notices shall not be construed as a determination of compliance with applicable regulations. Any regulatory citations to 40 CFR are as adopted by the Arizona Administrative Code, A.A.C. R18-8-201 *et seq.* Photographs available upon request.

Hazardous Waste Compliance Checklist

Page Trowbridge Ranch Landfill

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From 1962 to February 1, 1986, University of Arizona (UA) used Page Trowbridge Ranch Landfill (PTRL) to dispose of low-level radioactive and chemical wastes generated by laboratories at the UA, NAU, ASU, and Veterans Hospital in Tucson. The PTRL site occupies a total of 3.25 acres and consists of two units: Unit A (northern unit) measures 200 feet by 200 feet, and Unit B (southern unit) measures 200 feet by 500 feet. In both units, wastes were placed into individual cells (pits) that were approximately 15 feet deep.

Disposal operations began at Unit B, which from early 1960's received and maintained approval from the Arizona Atomic Energy Commission for disposal of low-level radioactive laboratory wastes. Disposal of mixed wastes at Unit B started in late 1960's, and continued to 1986. Chemical waste disposal cells at Unit B were first used as open neutralization and burn pits; subsequently, they were used for direct burial of chemicals in one- and five-gallon containers (bottles, cans, boxes, bags) and 55-gallon drums packed with adsorbent materials (lab packs). In 1982, Unit A, which was used only for disposal of chemical wastes, replaced Unit B for disposal of hazardous waste only. The unit was designed and operated in accordance with RCRA standards for landfills. The disposal cells were individually double-lined with a chemically resistant synthetic liner. Wastes were received in sealed, 55-gallon drums (DOT 17C). These drums were placed into the cells in single layers, sealed with the plastic liner, and covered with soil. Recordkeeping of wastes disposed in PTRL began in 1978. Based on manifests and earlier disposal records, a total of 80 tons of original containers and 200 tons of lab packs were disposed. This inventory does not include the radioactive wastes or undocumented chemical wastes. The chemical wastes consisted primarily of solvents, ignitable liquids, acids bases, heavy metals, pesticides, and photographic compounds. The landfill was closed in August 1997, in accordance with an approved RCRA closure plan and amendments. Final closure included the following:

- Construction of a single monolithic earthen cover consisting of a 24-inch subgrade with two layers of geogrid; a 24-inch soil infiltration barrier; a 200-mil geonet; and a 24-inch vegetative soil cover.
- Installation of a 6-ft high chain link fence with barbed wire on top;
- Construction of a road network to provide easy access to the facility;
- Construction of storm water channels, and Installation of 36-inch x 22-inch corrugated metal pipe-arch culverts for storm water management;

Following landfill closure, investigations were conducted in 2002, 2003, 2005, and 2007 to evaluate potential impacts of the landfill on subsurface soil, soil vapor, and groundwater in the immediate vicinity of the landfill. The investigations noted that organic vapors were migrating from the landfill cells. In 2004 and 2005, UA submitted workplans for the installation of a soil vapor extraction system located between landfill cells A and B, to remove vapors from the vadose zone. The system commenced operations in June 2006. The calibrated model of vapor diffusion over the history of the landfill operation indicates that with implementation of a soil-vapor extraction system, soil vapor concentrations would likely decline and stabilize in approximately 10 years.

A post-closure permit application was submitted in December 1997, and was approved by ADEQ on November 6, 2001. The permit and subsequent renewals established a 30-year post-closure period for maintenance of PTRL. Post-closure care includes:

- Inspection and maintenance of the covers of the closed landfill unit – periodic inspections are performed to monitor final cover integrity, erosion, and woody vegetation growth. Maintenance and repair is performed at the time of inspection or as soon as practicable to original final cover specifications and conditions.
- Inspection and maintenance activities – Preventative and corrective maintenance and repair procedures are performed on the perimeter fence, access roads, warning signs, monitor wells, drainage control systems, survey monuments, soil vapor extraction system, and closed landfill unit vegetative covers; Inspection of these items is performed quarterly.
- Groundwater and soil vapor monitoring and reporting – a groundwater detection monitoring plan is implemented to periodically collect and analyze groundwater and soil vapor samples from on-site monitoring wells and monitoring points. The measurement of groundwater elevations and implementation of groundwater detection monitoring at the on-site monitoring wells is performed semiannually.

[Click here to enter text.](#)

Physical Inspection

Observations [Top](#)

During the physical inspection ADEQ inspectors observed that the:

1. The SGD DP well lock was not working;
2. A 160 – 200 foot length of perimeter fence without any signage;
3. Culvert sediment filters not staked in place nor in good condition;
4. Woody vegetation growth on top of Cell A cover (mesquite tree);
5. Vegetation along the perimeter fence on the east side of the property.

Key: C = In Compliance N = Not in Compliance N/A = Not Applicable P = Pending

Site Security [Top](#)

1. Are the facility's security/safety features listed below in good shape:

- Gates
- Locks
- Fence
- Signage

NOTES: "In good shape" means:

- Verify that the gates allow ease of access; verify that there are no gaps in or under the gate that would allow unauthorized access to the facility; verify that the barbed wire is uncut and not bent;
- Verify that the locks work;
- Verify that no portion of the fence slumps and that the fencing supports appear to be straight ; that the barbed wire strands are not cut or bent; verify that there are no holes or gaps in the fence itself or that there are no gaps under the fence resulting from burrowing or stormwater flow so as to allow for unauthorized access to the facility;
- Verify that signage is present at the gate and appears along each side of the border/security fence with lettering that is readable at 25 feet.

C: N: N/A: P:

Permit Part II / Permit Attachment B App B-1 , Permit Attachment D

Comments:

During the physical inspection, ADEQ inspectors observed an insufficient number of security signs along the west side of the perimeter fence.

Comment?

Preparedness & Prevention [Top](#)

<p>1. Does the permittee have available the following required equipment to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment:</p> <ul style="list-style-type: none"> • Communications system (e.g., range radio, cell phone) • Device such as a telephone (e.g., landline phone box) <p>40 CFR § 264.32 / Permit Attachment F</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>2. Are portable fire extinguishers stored at the soil vapor extraction system? Are they fully charged? Have they been inspected within the past year?</p> <p>40 CFR § 264.33 / Permit Attachment F</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>

Post Closure Care [Top](#)

<p>1. Does the access road leading to the facility allow ease of access?</p> <p>NOTE: Verify that the access road (i.e., not including Willow Springs Road) is not washed out or obstructed so as to restrict access by personnel or emergency services.</p> <p>Permit Part II / Permit Attachment B</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>2. Are the roads onsite in good condition and free of vegetation?</p> <p>Permit Part II / Permit Attachment B</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>3. Are the following structures free of damage, erosion and woody vegetation growth?</p> <ul style="list-style-type: none"> <input type="checkbox"/> Cell A Cover <input checked="" type="checkbox"/> Cell A Side slope <input checked="" type="checkbox"/> Cell B Cover <input checked="" type="checkbox"/> Cell B Side slope <p>Permit Part II / Permit Attachment B</p>	<p>C: <input type="checkbox"/> N: <input checked="" type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>Comments: During the physical inspection, ADEQ inspectors observed a mesquite tree growing through Cell A Cover.</p>	<p><input checked="" type="checkbox"/> Comment?</p>
<p>4. Are the survey monuments visible with no visible evidence of tampering?</p> <p>Permit Part II / Permit Attachment B</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>

Hazardous Waste Satellite Accumulation Area [Top](#)

<p>1. Are all hazardous waste satellite accumulation containers:</p> <ul style="list-style-type: none"> • Located at or near point of initial generation? • Under the direct control of operator generating the waste? <p>40 CFR § 262.34(c)(1)</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>
<p>2. Are all hazardous waste satellite accumulation containers at or below the 55-gallons limit (or 1-quart of acute hazardous waste) for any one waste stream at any one work station/location?</p> <p>40 CFR § 262.34(c)(1)</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>
<p>3. Are all hazardous waste satellite accumulation container (s) marked with the words "Hazardous Waste" or other words that identify the contents of the container(s)?</p> <p>40 CFR § 262.34(c)(1)(ii)</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>

Hazardous Waste Satellite Accumulation Area Top	
<p>4. Are all hazardous waste satellite accumulation containers closed? Evidence of:</p> <ul style="list-style-type: none"> • Tight fitting lids • Vapor tight/liquid tight • Roll-off tarps secured <p>No evidence of:</p> <ul style="list-style-type: none"> • Lid not secured or missing • Gaskets, lid, bung, vent; damaged, missing • Ring missing • Ring not secured & bolted • Funnel not screwed in tight • Funnel lid not tight, closed • Open/loose bung or vent • Inappropriate vent, flash arrester, vacuum breaker, pressure relief <p>40 CFR § 262.34 (c)(1)(i)/40 CFR § 265.173(a) / A.A.C. R18-8-262/A.A.C. R18-8-270(B)(1)</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>
<p>5. Are all hazardous waste satellite accumulation containers in good condition? No evidence of:</p> <ul style="list-style-type: none"> • Leaking, spilling, off-gassing • Punctured, holes, broken • Metal corrosion, rust, pitting, thinning; inside & outside • Plastic cut, gouged, heat deformed, softened, thinned • Bulging, creasing, & denting (not restorable to original shape) • Metal fatigue from fire, bending, wear • Chimes separated, bent, open, damaged, unsealed • Body weld open, bent, damaged, defective • Rolling rings dented, creased damaged <p>Note: If not in good condition, transfer the hazardous waste from this container to a container that is in good condition or manage the waste in some other way that complies with the requirements.</p> <p>40 CFR § 262.34 (c)(1)(i)/40 CFR § 265.171</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>
<p>6. Is the hazardous waste satellite accumulation container or liner compatible with the waste? (ex. Acids/water solutions in metal drums)</p> <p>40 CFR § 262.34 (c)(1)(i)/40 CFR § 265.172</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>
<p>7. If 55-gallons/1-quart of hazardous waste is exceeded, are the hazardous waste satellite accumulation containers moved to the central accumulation area within 3 days?</p> <p>40 CFR § 262.34(c)(2)</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>
<p>8. Are hazardous waste satellite accumulation containers marked with the accumulation start date as the date the excess amount began accumulating?</p> <p>40 CFR § 262.34(c)(2)</p>	<p>C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p>

Run-on / Run-off Controls Top	
<p>1. Are the following structures in good shape?</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Culvert Crossing #1 (located between Cell A and Cell B) <input checked="" type="checkbox"/> Culvert Crossing #2 (located on the southeastern end of Cell B) <input checked="" type="checkbox"/> 18" CMP Culvert (east of Cell B at the border/security fence) <input checked="" type="checkbox"/> 18" CMP Culvert (south of Cell B at the border/security fence) <input type="checkbox"/> Cell A Swales (e.g., ditches and rip-rap) <input type="checkbox"/> Cell B Swales (e.g., ditches, rip-rap, and stormwater depression) <p>NOTES "In good shape" means:</p> <ul style="list-style-type: none"> • Gates on 18" CMP culverts must be locked, unobstructed/free of debris. Interior channels of culverts must be clear so as to allow the smooth flow of stormwater. Sediment filters must be staked in place; • Culvert crossings must be free of debris, and interior channels must be clear so as to allow the smooth flow of stormwater. • Swales must not be eroded, damaged, or blocked with debris or excessive vegetation. <p>Permit Part II / Permit Attachment B</p>	<p>C: <input type="checkbox"/> N: <input checked="" type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>Comments: During the physical inspection, ADEQ inspectors observed that culvert sediment filters were not staked in place nor in good condition.</p>	<p><input checked="" type="checkbox"/> Comment?</p>

Corrective Action - Interim Measures [Top](#)

<p>1. Are the following structures used for Interim Measures in good shape?</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> GAC Adsorbers (2) <input checked="" type="checkbox"/> Solar panel Arrays (2) <input checked="" type="checkbox"/> Extraction Blower, Motor, Belt Drive <input checked="" type="checkbox"/> Injection Blower, Motor, Belt Drive <input checked="" type="checkbox"/> Control Panel / Charge Controller / Load Controller / Inverter <input checked="" type="checkbox"/> Battery Array <input checked="" type="checkbox"/> Piping <input checked="" type="checkbox"/> Condensate Separators (KO-1 and KO-2) <input checked="" type="checkbox"/> SGS Condensate Sump <p>NOTE: "In good shape" means visually check for obvious physical damage.</p> <p>Permit Part III and Permit Attachment C</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>2. Are the soil vapor monitoring enclosures in good shape?</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> MW #2 <input checked="" type="checkbox"/> MW #5 <input checked="" type="checkbox"/> Well SGS <input checked="" type="checkbox"/> Probe SGS-SP <input checked="" type="checkbox"/> Probes SGD -SP and -MP (collocated) <input checked="" type="checkbox"/> Probe SGD-DP (aka SGD-2) <input checked="" type="checkbox"/> Well SGD (used for air injection) <p>NOTE: "In good shape" means visually check for obvious physical damage.</p> <p>Permit Part III / Permit Attachment C</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>

Groundwater Monitoring [Top](#)

<p>1. Are the groundwater monitoring well enclosures in good shape?</p> <ul style="list-style-type: none"> <input type="checkbox"/> MW #2 <input type="checkbox"/> MW #3 <input type="checkbox"/> MW #4 <input type="checkbox"/> MW #5 <p>NOTE: "In good shape" means free of deterioration and/or vandalism, are the well enclosures locked? Are the ADWR IDs and the MW designations present and readable?</p> <p>Permit Part III/Permit Attachment B</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>2. Does the well pumping assembly operate properly?</p> <ul style="list-style-type: none"> <input type="checkbox"/> MW #2 <input type="checkbox"/> MW #3 <input type="checkbox"/> MW #4 <input type="checkbox"/> MW #5 <p>NOTE: Verify that well pumping assembly is operating properly only if permittee is conducting groundwater monitoring event.</p> <p>Permit Part III/Permit Attachment B</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>3. Are the sounding tubes clear?</p> <ul style="list-style-type: none"> <input type="checkbox"/> MW #2 <input type="checkbox"/> MW #3 <input type="checkbox"/> MW #4 <input type="checkbox"/> MW #5 <p>NOTE: Verify that sounding tubes are clear only if permittee is conducting groundwater monitoring event.</p> <p>Permit Part III/Permit Attachment B</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>

Records Review

ADEQ Fees and Annual Report [Top](#)

<p>1. Has the permittee registered annually with ADEQ and paid an annual registration fee?</p> <p>NOTE: TSDF registration is due March 1st of each year.</p> <p>A.R.S. 49-929.A & B/ A.A.C. R18-8-260.</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
<p>2. Has the permittee submitted a timely Facility Annual Report to ADEQ?</p> <p>NOTE: The report must be accurate and complete as per 40 CFR § 264.75.</p> <p>A.A.C. R18-8-264.I, Permit Part I.E.12</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>

Operating Record [Top](#)

<p>1. Does the permittee keep a copy of the most up-to-date Operating Record (at UA Risk Management)? Does the facility keep Operating Records for 3 years? The Operating Record must include:</p> <p><input checked="" type="checkbox"/> (a) Most recent copy of the Post-Closure Plan;; [A.A.C. R18-8-264.A (40 CFR 264.73(b)(1) Permit Part I.G, Permit Attachment B]</p> <p><input checked="" type="checkbox"/> (b) Most recent copy of the Contingency Plan; [A.A.C. R18-8-264.A (40 CFR 264.73(b)(2)), Permit Part I.G, Permit Attachment F]</p> <p><input type="checkbox"/> (c) Personnel training documents; [A.A.C. R18-8-264.A (40 CFR 264.73(b)(3)), Permit Part I.G, Permit Attachment E]</p> <p><input checked="" type="checkbox"/> (d) The summary reports and details of all incidents that require implementing the Contingency Plan (this may be a written record or an electronic record with written report provided upon request by the Director's authorized representative); [A.A.C. R18-8-264.A (40 CFR 264.73(b)(4))]</p> <p><input checked="" type="checkbox"/> (e) The records and results of inspections (this may be a written or an electronic record, however electronic records of any checklist must be identical electronic images of the original written record); [A.A.C. R18-8-264.A (40 CFR 264.73(b)(5)), Permit Part I.G]</p> <p><input checked="" type="checkbox"/> (f) Most recent copy of the EGDMP and EGDMP QAPP; [A.A.C. R18-8-264.A (40 CFR 264.73(b)(6)), Permit Part I.E.9, Permit Part I.G, Permit Attachments G and H]</p> <p><input checked="" type="checkbox"/> (g) The monitoring, testing or analytical data, and corrective action (this may be a written record or an electronic record with written report provided upon request by the Director's authorized representative); [A.A.C. R18-8-264.A (40 CFR 264.73(b)(6)), Permit Part I.E.9, Permit Part I.G] [A.A.C. R18-8-264.A (40 CFR 264.73(b)(9))]</p> <p>40 CFR § 264.73 / Permit Part II.J.1</p>	C: <input type="checkbox"/> N: <input checked="" type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
<p><u>Comments:</u> During records review, ADEQ inspectors discovered that the facility failed to maintain training documents for personnel.</p>	<input checked="" type="checkbox"/> Comment?

Waste Analysis [Top](#)

<p>1. Do waste analyses / determinations appropriately characterize wastes generated in association with the post-closure plan for purposes of proper storage, treatment and disposal ? Waste determinations may include:</p> <ul style="list-style-type: none"> • Lists of wastes produced • Process descriptions • Safety Data sheets • Waste Profile Sheets • Raw analytical data and QA/QC documents • Sampling plans • Analytical results <p>NOTES: Anticipated generated wastes associated with the Permit may include, but are not limited to:</p> <ul style="list-style-type: none"> • contaminated soils, contaminated PPE, and investigative-derived wastes resulting from site-wide corrective actions, and • liquids removed from the condensate collection drum, condensates from KO-1, or KO-2, and GAC generated at the interim measures response (i.e., SVE) system. <p>40 CFR § 264.13 / Permit Part II / Permit Part III and Permit Attachment G / Permit Part IV and Permit Attachment I / Permit Attachment C</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
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Contingency Plan [Top](#)

<p>1. Is the Contingency Plan (CP) maintained at the Risk Management Office, and is available to facility personnel?</p> <p>40 CFR § 262.53(a) / A.A.C. R-18-8-270(B)(1) / Permit Part I.G / Permit Part II.I / Permit Attachment F</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
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Contingency Plan [Top](#)

<p>2. Have there been changes to the CP, and has it been submitted as a Permit modification in accordance with 40 CFR 270.42 ?</p> <p>40 CFR § 264.52(e), and 264.54 / Permit Part II.I / Permit Attachment F</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
<p>3. Does the CP include an evacuation plan? Are evacuation routes accurately designated in contingency plan?</p> <p>NOTE: The evacuation plan must include signals to begin evacuation, evacuation routes, and alternate evacuation routes.</p> <p>40 CFR § 265.52(f) / Permit Part II.I / Permit Attachment F</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
<p>4. Does the CP include an updated list of required emergency equipment at the facility, including locations, descriptions and relevant capabilities?</p> <p>40 CFR § 264.52(e) / Permit Part II.I / Permit Attachment F</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
<p>5. Does the CP include the names, addresses, and phone numbers (office and home) of all persons qualified as emergency coordinators?</p> <p>NOTE: The primary coordinator must be listed first, and others must be listed in the order in which they will assume responsibility as alternates.</p> <p>40 CFR § 264.52(d) / Permit Part II.I / Permit Attachment F</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
<p>6. Is there, at all times, an emergency coordinator on the premises or on call (able to reach the facility within a short period of time, e.g., two hours)?</p> <p>NOTES: The emergency coordinator must be thoroughly familiar with:</p> <ul style="list-style-type: none"> • All aspects of the contingency plan. • All operations and activities at the facility. • Location and characteristics of all waste. • Location of all records. • Layout of the entire facility. <p>The emergency coordinator must have the authority to commit the resources needed to carry out the CP.</p> <p>40 CFR § 264.55 / Permit Part II.I / Permit Attachment F</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
<p>7. Did the permittee submit the CP and its updates to all police and fire departments, and State and local emergency response teams that may be called upon during an emergency? The plan must specify names of the entities it is being submitted to. The facility must have copies of the transmittal letters.</p> <p>40 CFR § 264.53(b) / Permit Part II.I / Permit Attachment F</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
<p>8. Has the facility had a release, fire or explosion and/or implemented the CP ? Did the facility immediately notify the ADEQ Emergency Response Unit ((602) 771-2330 or (800) 234-5677) and either the on-scene government coordinator for the geographical area or the National Response Center (800) 424-8802 ? Responses may be made for copies of 15-day written reports and operating logs with records of spills and incidents, including those requiring fire department or 9-1-1 assistance.</p> <p>The reports must include:</p> <ul style="list-style-type: none"> • Name, address, and telephone number of the owner or operator; • Name, address, and telephone number of the facility; • Date, time, and type of incident (e.g., fire, explosion); • Name and quantity of material(s) involved; • The extent of injuries, if any, • An assessment of actual or potential hazards to human health or the environment, where this is applicable; and • Estimated quantity and disposition or recovered material that resulted from the incident. <p>40 CFR § 264.56 / Permit Part II.I / Permit Attachment F</p>	C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/>

Personnel Training [Top](#)

<p>1. Does the permittee maintain the following documents and records at the facility:</p> <ul style="list-style-type: none"> • The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job (d)(1); • A written job description for each position. This description must include the requisite skill, education, or other qualifications, and duties of facility personnel assigned to each position; • A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position; • Records that document that the required training or job experience has been given to, and completed by, facility personnel. <p>NOTE: Training records on current personnel must be kept until closure of the facility. Training records on former employees must be kept for at least three years from the date the employee last worked at the facility.</p> <p>40 CFR § 264.16 / A.A.C. R18-8-270(B)(1) / Permit Part II.H / Permit Attachment E</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>2. Did facility personnel successfully complete a program of classroom instruction or on the job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of 40 CFR § 265.16 for handling hazardous waste?</p> <p>NOTE: This program must be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.</p> <p>40 CFR § 264.16(a) / A.A.C. R18-8-270(B)(1) / Permit Part II.H / Permit Attachment E</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>3. Did facility personnel successfully complete the training program within six months after the date of their employment or assignment to a facility, or to a new position at a facility, whichever is later?</p> <p>NOTE: Employees hired after the effective date of these regulations must not work in unsupervised positions until they have completed the training requirements.</p> <p>40 CFR § 264.16(b) / A.A.C. R18-8-270(B)(1) / Permit Part II.H / Permit Attachment E</p>	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>4. Did facility personnel attend annual review of the initial training?</p> <p>40 CFR § 264.16(c) / A.A.C. R18-8-270(B)(1) / Permit Part II.H / Permit Attachment E</p>	<p>C: <input type="checkbox"/> N: <input checked="" type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<p>Comments: During records review, ADEQ inspectors discovered that the facility failed to provide annual training for personnel.</p>	<p><input checked="" type="checkbox"/> Comment?</p>

Inspection Records [Top](#)

<p>1. Does the permittee maintain quarterly inspection logs of the facility structures ? Do the inspections address:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • Signage • Communication systems • Landfill covers • Survey monuments </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • Gates and locks • Drainage structures • Perimeter fencing • Access roads </td> </tr> </table> <p>40 CFR § 264.174 / Permit Part II.G / Permit Part II.J / Permit Attachment B</p>	<ul style="list-style-type: none"> • Signage • Communication systems • Landfill covers • Survey monuments 	<ul style="list-style-type: none"> • Gates and locks • Drainage structures • Perimeter fencing • Access roads 	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<ul style="list-style-type: none"> • Signage • Communication systems • Landfill covers • Survey monuments 	<ul style="list-style-type: none"> • Gates and locks • Drainage structures • Perimeter fencing • Access roads 		
<p>2. Are all written logs for the facility structures kept for three years from the date of the inspection, filled in after each inspection, and include the following information:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Inspection date <input checked="" type="checkbox"/> Inspector's name <input checked="" type="checkbox"/> Inspector's signature </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Observation remarks <input checked="" type="checkbox"/> Corrections made <input checked="" type="checkbox"/> Date corrections completed </td> </tr> </table> <p>NOTE: If deficiencies are found, then facility may be found in non-compliance with duty to inspect, log, keep records, and train staff.</p> <p>40 CFR § 264.174 / Permit Part II.G / Permit Part II.J / Permit Attachment B</p>	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Inspection date <input checked="" type="checkbox"/> Inspector's name <input checked="" type="checkbox"/> Inspector's signature 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Observation remarks <input checked="" type="checkbox"/> Corrections made <input checked="" type="checkbox"/> Date corrections completed 	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Inspection date <input checked="" type="checkbox"/> Inspector's name <input checked="" type="checkbox"/> Inspector's signature 	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Observation remarks <input checked="" type="checkbox"/> Corrections made <input checked="" type="checkbox"/> Date corrections completed 		
<p>3. Does the permittee keep weekly inspection logs of the Interim Measures (SVE) System Do the inspections address:</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • Pitot tubes • Presence of condensate in condensate separators (October through April) • Grounding cables for the solar array and electrical systems </td> <td style="width: 50%; vertical-align: top;"> <ul style="list-style-type: none"> • Blowers and blower motors • Electrical system • Battery array </td> </tr> </table> <p>40 CFR § 264.174 / Permit Part II.G / Permit Part II.J / Permit Attachment B / Permit Attachment C</p>	<ul style="list-style-type: none"> • Pitot tubes • Presence of condensate in condensate separators (October through April) • Grounding cables for the solar array and electrical systems 	<ul style="list-style-type: none"> • Blowers and blower motors • Electrical system • Battery array 	<p>C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p>
<ul style="list-style-type: none"> • Pitot tubes • Presence of condensate in condensate separators (October through April) • Grounding cables for the solar array and electrical systems 	<ul style="list-style-type: none"> • Blowers and blower motors • Electrical system • Battery array 		

Inspection Records [Top](#)

<p>4. Does the permittee keep quarterly inspection logs of the Interim Measures (SVE) System Do the inspections address:</p> <ul style="list-style-type: none">Blower belt drives (PDB-1 and PDB-2)General blower functionPanel arrayVacuum gaugesPipingBlower motors (brushes)	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
<p>40 CFR § 264.174 / Permit Part II.G / Permit Part II.J / Permit Attachment B / Permit Attachment C</p>	
<p>3. Are all written logs for the Interim Measures (SVE) System kept for three years from the date of the inspection, filled in after each inspection, and include the following information:</p> <ul style="list-style-type: none"><input checked="" type="checkbox"/> Inspection date<input checked="" type="checkbox"/> Inspector's name<input checked="" type="checkbox"/> Observation remarks including corrections made <p>NOTE: If deficiencies are found, then facility may be found in non-compliance with duty to inspect, log, keep records, and train staff.</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
<p>40 CFR §264.174 / Permit Part II.G / Permit Part II.J / Permit Attachment B / Permit Attachment C</p>	
<p>4. Does the facility inspect the GAC on a semi-annual basis? Does the inspector collect a sample of the process stream vapor from the sampling port located in-between the lead and lag GAC adsorber unit?</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
<p>40 CFR § 264.174 /Permit Part II/ Permit Attachment B / Permit Attachment C</p>	

Groundwater Monitoring Records [Top](#)

<p>1. Does the facility have copies of groundwater monitoring analytical data? Note: See also Operating Record, item (g)</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
<p>40 CFR § 264.73 / A.A.C. R18-8-264(A) / Permit Part I.G / Permit Part III.E / Permit Attachment G</p>	

Soil Vapor Monitoring Records [Top](#)

<p>1. Does the facility have copies of soil vapor monitoring analytical data? Note: See also Operating Record, item (g)</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
<p>Permit Part I.G / Permit Part III.D / Permit Part IV.I.4 / Permit Attachment G</p>	

Notifications [Top](#)

<p>1. Has the permittee notified ADEQ in writing of new SWMUs or AOCs? Permit Part IV.E.1</p>	C: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/>
<p>2. Has the permittee reported issues of noncompliance which may endanger human health or the environment as soon as possible or within twenty-four (24) hours of becoming aware of the circumstances? Permit Part I.E.12 / Permit Part IV.F.1</p>	C: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/>

Additional Comments [Top](#)

Click here to enter text.

Hazardous Waste Field Inspection Report

LARGE QUANTITY GENERATORS (LOGs)

Inspection Date: April 14, 2021

Date of Last Inspection: April 22, 2020

INDEPENDENT REQUIREMENTS

Key: Y = Yes N = No N/A = Not Applicable P = Pending

A.A.C. R18-8-262 / A.R.S. §§ 49-929 & 49-931 / 40 CFR § 262 Subpart A - Primary Generator Requirements	
1. Did the Generator: <ul style="list-style-type: none"> Identify each solid waste stream at the facility? Make an accurate hazardous waste determination of each waste stream? Maintain hazardous waste determination records for at least three years from the date that the waste was last sent to treatment, storage, or disposal? 	Y: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/> <input type="checkbox"/> Comment?
2. Did the Generator properly determine its generator category based on the amount of hazardous waste generated each month?	Y: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/> <input type="checkbox"/> Comment?
3. Did the Generator obtain an EPA ID # by submitting an application to ADEQ through the myDEQ online portal using EPA Form 8700-12? <ul style="list-style-type: none"> A generator may not treat, store, dispose of, transport, or offer for transportation, hazardous waste without receiving an EPA identification number from ADEQ. 	Y: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/> <input type="checkbox"/> Comment?
4. Did the Generator re-notify ADEQ and the EPA? <ul style="list-style-type: none"> Submit reports and fees through myDEQ Submit Biennial Report by March 1 of each even-numbered year 	Y: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/> <input type="checkbox"/> Comment?
A.A.C. R18-8-262 / 40 CFR § 262 Subpart B - Manifest Requirements	
1. Did the Generator properly prepare manifest(s) for transporting hazardous waste off site? <ul style="list-style-type: none"> EPA Form 8700-22 and, if necessary, EPA Form 8700-22A 	Y: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/> <input type="checkbox"/> Comment?
2. Did the Generator properly prepare and report electronic manifest(s) in lieu of using EPA Form 8700-22? <p style="margin-left: 20px;">The Generator must comply with the requirements of:</p> <ul style="list-style-type: none"> 40 CFR § 262.24 and 40 CFR § 3.10 for the reporting of electronic documents to the EPA 	Y: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/> <input type="checkbox"/> Comment?
3. Did the Generator: <ul style="list-style-type: none"> Sign the manifest waste minimization certification as required by 40 CFR § 262.27? Obtain the signature of the initial transporter and date of acceptance on the manifest? Retain the initial copy for three years or until receipt of a signed copy from the designated facility? Retain the fully signed copy for three years from the date of waste acceptance? 	Y: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/> <input type="checkbox"/> Comment?
40 CFR § 262 Subpart D - Record Keeping & Exception Reporting	
1. If the Generator did not receive a copy of the manifest with the designated facility signature within 35 days of the date the waste was accepted by the initial transporter, did they contact the transporter and/or the designated facility to determine the status of the hazardous waste?	Y: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/> <input type="checkbox"/> Comment?
2. Did the Generator submit an Exception Report if they did not receive a copy of the manifest with the designated facility signature within 45 days of the date the waste was accepted by the initial transporter?	Y: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/> <input type="checkbox"/> Comment?
3. Did the Generator keep a copy of each Biennial Report and Exception Report for a period of at least three years from the due date of the report?	Y: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/> <input type="checkbox"/> Comment?

**CONDITIONS FOR EXEMPTIONS
HAZARDOUS WASTE CONTAINERS
A.A.C. R18-8-262 / 40 CFR §§ 262.15 & 262.17**

Failure to meet the conditions for exemptions listed below will subject the facility to Treatment, Storage, and/or Disposal Facility (TSDF) regulations

Exemption From Permitting, Interim Status, and TSDF Operating Requirements

Note: The Generator must meet the conditions for exemption under 40 CFR §§ 262.15 & 262.17 /A.A.C. R18-8-262, summarized in this check list, to obtain exemption from storage facility permit, interim status, and operating requirements.

The Generator must prevent the following from occurring:

- Unpermitted release, discharge, or disposal
- Improper treatment (dilution and/or thermal treatment are prohibited without a permit)
- Accumulation exceeding 90 days (except Satellite Accumulation Areas)
- Failure to meet a condition for exemption in the applicable regulations, including any condition listed below

A.A.C. R18-8-262 / 40 CFR § 262.17 - Central Accumulation Areas (CAAs)

<p>1. Did the Generator accumulate hazardous waste only in containers, tanks, drip pads, and/or containment buildings?</p> <p>Note: Tanks, drip pads, and containment buildings have requirements on separate checklists.</p>	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>2. Did the Generator comply with the following container management requirements?</p> <ul style="list-style-type: none"> • Immediately transfer hazardous waste from a container, if it is not in good condition or if it begins to leak, to a container that is in good condition. • Use a container made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired. • Always keep containers holding hazardous waste closed during accumulation, except when it is necessary to add or remove waste. • Does not open, handle, or store hazardous waste in a manner that may rupture the container or cause it to leak. 	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>3. Did the Generator comply with the Air Emission Standards of 40 CFR § 265 Subparts AA, BB, & CC?</p>	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>4. Did the Generator inspect CAAs at least weekly to look for leaking containers and for deterioration of containers caused by corrosion or other factors?</p>	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>5. Did the Generator comply with the requirements for accumulating ignitable and/or reactive waste?</p> <ul style="list-style-type: none"> • Locate containers holding ignitable or reactive waste at least 15 meters (50 feet) from the facility's property line • Take precautions to prevent accidental ignition or reaction of hazardous waste • Separate and protect ignitable and reactive waste from sources of ignition or reaction including but not limited to the following: Open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat • Place "No Smoking" signs conspicuously wherever there is a hazard from ignitable or reactive waste. 	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>6. Did the Generator comply with the requirements for accumulating incompatible wastes?</p> <ul style="list-style-type: none"> • Avoid placing incompatible wastes, or incompatible wastes and materials, in the same container. • Avoid placing hazardous waste in unwashed containers that held incompatible waste or material. • Separate or protect hazardous waste from any incompatible wastes or materials by means of a dike, berm, wall or other device 	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>

A.A.C. R18-8-262 / 40 CFR § 262.17 - Central Accumulation Areas (CAAs)

<p>7. Did the Generator label or mark its hazardous waste containers with the following:</p> <ul style="list-style-type: none"> • The words “Hazardous Waste” • An indication of the hazards of the contents in one of the following forms: <ul style="list-style-type: none"> ○ The applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic) ○ Hazard communication consistent with DOT requirements (49 CFR part 172) for labeling and placarding ○ Hazard statement or pictogram consistent with OSHA Hazard Communication Standards (29 CFR 1910.1200) ○ A chemical hazard label consistent with the National Fire Protection Association code 704 • A clearly visible accumulation start date 	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/> <input type="checkbox"/> Comment?</p>
<p>8. Does the Generator comply with the Personnel Training requirements?</p> <ul style="list-style-type: none"> • Facility personnel must successfully complete a program of classroom instruction, online training, or on-the-job training that teaches them to perform their duties in a way that ensures compliance. • This program must be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed. • At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including where applicable: <ul style="list-style-type: none"> ○ Procedures for using, inspecting, repairing, and replacing facility emergency and monitoring equipment ○ Key parameters for automatic waste feed cut-off systems ○ Communications or alarm systems ○ Response to fires or explosions ○ Response to ground-water contamination incidents ○ Shutdown of operations • Facility personnel must successfully complete the training within six months after the date of their employment or assignment to the facility, or to a new position at the facility, whichever is later • Employees must not work in unsupervised positions prior to completing the training • Facility personnel must take part in an annual review of the initial training • The Generator must maintain the following documents and records at the facility: <ul style="list-style-type: none"> ○ The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job ○ A written job description for each position including the requisite skill, education, or other qualifications, and duties of facility personnel assigned to each position ○ A written description of the type and amount of both introductory and continuing training that will be given to each person ○ Records that document that the training has been completed by facility personnel. • Training records on current personnel must be kept until closure of the facility. Training records on former employees must be kept for at least three years from the date the employee last worked at the facility. 	<p>Y: <input type="checkbox"/> N: <input checked="" type="checkbox"/> NA: <input type="checkbox"/> P: <input type="checkbox"/> <input checked="" type="checkbox"/> Comment?</p>
<p><u>Comments:</u> During records review, ADEQ inspectors discovered that the facility failed to maintain training documents for personnel handling and managing hazardous waste.</p>	
<p>9. Did the Generator comply with the Land Disposal Restrictions (LDRs) requirements of 40 CFR § 268?</p> <ul style="list-style-type: none"> • The Generator must determine if the waste has to be treated before land disposal by obtaining a detailed chemical and physical analysis of the waste or using knowledge of the waste • If the Generator is managing a characteristic hazardous waste, they must determine each applicable EPA waste code in order to determine the applicable treatment standards • The Generator must place a one-time notification and certification in the on-site files if: <ul style="list-style-type: none"> ○ The Generator treated the waste to remove a characteristic, or ○ The waste did not meet treatment standards, or ○ The Generator did not determine if treatment is required • If the waste or contaminated soil meets the treatment standard, the Generator must send a one-time written notice with the initial shipment to each designated facility receiving the waste • For contaminated soil, the Generator must send a one-time written notice with the initial shipment of waste to each facility receiving the waste and place a copy in the file 	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/> <input type="checkbox"/> Comment?</p>

A.A.C. R18-8-262 / 40 CFR § 262.17 - Central Accumulation Areas (CAAs)

<ul style="list-style-type: none"> • If the Generator is managing and treating prohibited hazardous waste or contaminated soil in tanks, containers, or containment buildings to meet the LDRs: <ul style="list-style-type: none"> ○ The Generator must develop and follow a written waste analysis plan which describes the procedures that will be followed to meet the treatment standards ○ The waste analysis plan must be based on detailed chemical and physical analysis of a representative sample of the prohibited waste being treated ○ The Generator must keep the waste analysis plan on-site readily available to inspectors • If the Generator determines the waste or contaminated soil is restricted by knowledge or testing, the Generator must retain all supporting data and waste analysis data in on-site files • The Generator must retain on-site a copy of all notices, certifications, waste analysis data, and other documentation related to LDRs for at least three years from the date that the waste was last sent to on-site or off-site treatment, storage, or disposal 	
<p>10. If the facility is consolidating hazardous waste received from Very Small Quantity Generator (VSQG) facilities under control of the same person, did they meet all of the VSQG Consolidation requirements?</p> <p>The Generator must:</p> <ul style="list-style-type: none"> • Notify ADEQ using EPA Form 8700-12 in the myDEQ portal at least thirty (30) days prior to receiving the first shipment from a VSQG <ul style="list-style-type: none"> ○ Identify on the form the name(s) and site address(es) for the VSQGs as well as the name and business telephone number for a contact person for each VSQG ○ Submit an updated Site ID form (EPA Form 8700-12) within 30 days after a change in the name or site address for the VSQG • Maintain records of shipments for three years from the date the hazardous waste was received • Label all containers with the date the waste was received from the VSQG (accumulation start date) • Comply with all LQG independent requirements and all LQG conditions for exemption for the consolidated VSQG waste 	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>

A.A.C. R18-8-262 / 40 CFR § 262.15 - Satellite Accumulation Areas (SAAs)

<p>1. Are all hazardous waste satellite accumulation containers:</p> <ul style="list-style-type: none"> • Located at or near point of initial generation? • Under the direct control of the operator generating the waste? 	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>2. Are all non-acute hazardous waste satellite accumulation containers at or below the 55-gallon limit (or 1-quart of liquid acute hazardous waste or 1 kg [2.2 pounds] of solid acute hazardous waste) at the point of generation?</p>	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>3. Did the Generator comply with all container management requirements?</p> <ul style="list-style-type: none"> • Immediately transfer hazardous waste from a container, if it is not in good condition or if it begins to leak, to a container that is in good condition. • Use a container made of or lined with materials that will not react with, and are otherwise compatible with, the hazardous waste to be stored, so that the ability of the container to contain the waste is not impaired. • Always keep containers holding hazardous waste closed during accumulation, except when it is necessary to add or remove waste, for temporary venting, proper operation of equipment, or to prevent build-up of extreme pressure • Does not open, handle, or store hazardous waste in a manner that may rupture the container or cause it to leak. 	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>4. Did the Generator comply with the requirements for accumulating incompatible wastes?</p> <ul style="list-style-type: none"> • Avoid placing incompatible wastes, or incompatible wastes and materials, in the same container. • Avoid placing hazardous waste in unwashed containers that held incompatible waste or material. • Separate or protect hazardous waste from any incompatible wastes or materials by means of a dike, berm, wall or other device 	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>

A.A.C. R18-8-262 / 40 CFR § 262.15 - Satellite Accumulation Areas (SAAs)

<p>5. Did the Generator comply with the requirements for labeling and marking hazardous waste containers?</p> <ul style="list-style-type: none"> • The words “Hazardous Waste” • An indication of the hazards of the contents in one of the following forms: <ul style="list-style-type: none"> ○ The applicable hazardous waste characteristic(s) (i.e., ignitable, corrosive, reactive, toxic) ○ Hazard communication consistent with DOT requirements (49 CFR part 172) for labeling and placarding ○ Hazard statement or pictogram consistent with OSHA Hazard Communication Standards (29 CFR 1910.1200) ○ A chemical hazard label consistent with the National Fire Protection Association code 704 	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/> <input type="checkbox"/> Comment?</p>
<p>6. If 55-gallons of non-acute/1-quart of liquid acute/1 kg of solid acute hazardous waste has been exceeded in the SAA, has the generator done the following:</p> <ul style="list-style-type: none"> • Comply within three consecutive calendar days with the Central Accumulation Area regulations • Remove the excess from the SAA within three consecutive calendar days to either: <ul style="list-style-type: none"> ○ A Central Accumulation Area operated in compliance with the applicable regulations ○ An on-site interim status or permitted treatment, storage, or disposal facility ○ An off-site designated facility • Mark or label the container(s) holding the excess accumulation of hazardous waste with the date the excess accumulation began 	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/> <input type="checkbox"/> Comment?</p>

**A.A.C. R18-8-262 / 40 CFR § 262 Subpart M
Preparedness, Prevention, and Emergency Requirements for CAAs and SAAs**

<p>1. Did the Generator comply with the facility maintenance and operations standards?</p> <ul style="list-style-type: none"> • Facility maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment 	<p>Y: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/> <input type="checkbox"/> Comment?</p>
<p>2. Did the Generator have all required equipment in all hazardous waste generation and accumulation areas?</p> <ul style="list-style-type: none"> • Internal communication or alarm system (i.e. intercom speaker, siren, fire alarm) capable of providing immediate emergency instruction to facility personnel • External communications system (i.e. phone or two-way radio) immediately available at operations areas capable of summoning emergency assistance from local police and fire departments, or state or local emergency response teams • Fire extinguishers, fire control equipment, spill control equipment, and decontamination equipment • All equipment listed above tested and maintained as necessary to assure its proper operation • Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems 	<p>Y: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/> <input type="checkbox"/> Comment?</p>
<p>3. Did the Generator have adequate aisle space for the unobstructed movement of staff and emergency equipment during business operations, weekly inspections and emergencies?</p>	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/> <input type="checkbox"/> Comment?</p>
<p>4. Did the Generator attempt to make arrangements with police and emergency response teams including contractors, equipment suppliers and local hospitals as detailed below?</p> <ul style="list-style-type: none"> • Familiarize the above organizations with the facility layout, properties of hazardous waste at the facility and their hazards, entrances and evacuation routes, and types of potential illnesses that may occur as a result of an emergency • Where more than one police or fire department might respond, make arrangements to designate a primary emergency response authority • Maintain records to document the arrangements described above exist, or documents to show attempts were made to make such arrangements 	<p>Y: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/> <input type="checkbox"/> Comment?</p>

<p>5. Did the Generator maintain a Contingency Plan designed to minimize hazards from fires, explosions, or releases of hazardous wastes or hazardous waste constituents to the environment?</p> <p>The Contingency Plan must include:</p> <ul style="list-style-type: none"> • Description of actions facility staff will implement when there is an imminent or actual emergency • Describes arrangements with local authorities including local police and fire departments, other emergency response teams and contractors, or applicable the Local Emergency Planning Committee • Names and emergency telephone numbers of all emergency coordinators • Name of the primary emergency coordinator if more than one person is listed • List of all emergency equipment (fire extinguishers, spill control equipment, communications and alarm systems, and decontamination equipment) <ul style="list-style-type: none"> ○ Include location, physical description, and capabilities of all emergency equipment • Evacuation plan including primary/alternate routes and a description of evacuation signals 	<p>Y: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>6. Did the Generator submit an up-to-date copy of the Contingency Plan to all local emergency responders?</p>	<p>Y: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>7. Did the Generator prepare a Quick Reference Guide that summarizes the Contingency Plan?</p> <p>The Quick Reference Guide must include:</p> <ul style="list-style-type: none"> • Types of hazardous wastes in layman's terms • Hazard associated with each hazardous waste (e.g., toxic paint wastes, spent ignitable solvent) • Estimated maximum amount of each hazardous waste that may be present at any one time • Identification of any hazardous wastes where exposure would require unique or special treatment by medical or hospital staff • Map of the facility showing where hazardous wastes are generated, accumulated, and treated and routes for accessing these wastes • Street map of the facility in relation to surrounding businesses, schools and residential areas • Locations of water supply (e.g., fire hydrant and its flow rate); • Identification of on-site notification systems (e.g., a fire alarms/smoke alarms) • Name of the emergency coordinator(s) and 24-hour emergency telephone number(s) • Generators must update their quick reference guides whenever the contingency plan is amended and submit these documents to the local emergency responders 	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>8. Did the Generator review and immediately amend the Contingency Plan whenever:</p> <ul style="list-style-type: none"> • Applicable regulations are revised • The plan fails in an emergency • The facility changes (in its design, construction, operation, maintenance, or other circumstances) in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency • The list of emergency coordinators changes • The list of emergency equipment changes 	<p>Y: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>9. Does the Generator comply with the Emergency Coordinator requirements?</p> <ul style="list-style-type: none"> • At all times, the emergency coordinator or designee must be available on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) to coordinate all emergency response measures • The emergency coordinator must be thoroughly familiar with all aspects of the Contingency Plan, all operations and activities at the facility, the location and characteristics of hazardous waste handled, the location of all records within the facility, and the facility's layout • The emergency coordinator must have the authority to commit the resources needed to carry out the contingency plan. 	<p>Y: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>

<p>10. Does the Generator comply with the Emergency Procedures and Spill Reporting requirements?</p> <p>If there is an imminent or actual emergency, the emergency coordinator must immediately activate internal facility alarms or communication systems and notify appropriate state or local agencies</p> <p>If there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released material and assess possible hazards to human health or the environment</p> <p>If there is a release, fire, or explosion that could impact human health or the environment off-site, the emergency coordinator must do the following:</p> <ul style="list-style-type: none"> • Immediately notify appropriate local authorities if evacuation of local areas is advisable • Immediately notify the ADEQ Emergency Response Unit (602-771-2330 or 800-234-5677) and the National Response Center (800-424-8802) <ul style="list-style-type: none"> • The report shall include the following: <ul style="list-style-type: none"> ▪ Name, address, and telephone number of the reporter; ▪ Name and address of the facility; ▪ Time and type of incident (e.g. release, fire); ▪ Name and quantity of material(s) involved, to the extent known; ▪ The extent of injuries, if any; ▪ The possible hazards to human health, or the environment, outside the facility. • During an emergency, the emergency coordinator must take reasonable steps to ensure fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility • If the Generator stops operations, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes or other equipment, as appropriate 	<p>Y: <input checked="" type="checkbox"/> N: <input type="checkbox"/> N/A: <input type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>11. Immediately after an emergency, did the emergency coordinator do the following:</p> <ul style="list-style-type: none"> • Provide for treating, storing, or disposing of recovered waste, contaminated soil, or surface water • In affected areas of the facility: <ul style="list-style-type: none"> ○ No hazardous waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed ○ All equipment listed in the Contingency Plan are cleaned and fit for their intended use 	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>12. Did the Generator submit a written report on the incident to ADEQ within 15 days of any emergency?</p> <p>The report must include:</p> <ul style="list-style-type: none"> ○ Name, address, and telephone number of the generator ○ Date, time, and type of incident (fire, explosion) ○ Name and quantity of material(s) involved ○ Extent of injuries, if any ○ An assessment of actual or potential hazards to human health or the environment ○ Estimated quantity and disposition of recovered material that resulted from the incident 	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>

**UNIVERSAL WASTE
(40 CFR § 273 & A.A.C. R18-8-273)**

Small Quantity Handler (SQH) of Universal Waste Management	
<p>1. Does the SQH prevent the on-site disposal, dilution or treatment of universal waste?</p> <p>The SQH must manage universal waste in a manner that prevents releases of the waste or its components to the environment</p> <p>Note: Universal waste includes batteries, pesticides, mercury-containing equipment, and lamps</p>	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>2. If mercury containing ampules are removed from thermostats, has the handler met all of the requirements listed at 40 CFR § 273.13(c)?</p>	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>

Small Quantity Handler (SQH) of Universal Waste Management

<p>3. Are universal waste pesticides, mercury containing material (i.e. thermostats), and lamps placed in containers that meet all of the following conditions:</p> <ul style="list-style-type: none"> • Kept closed • Structurally sound • Adequate to prevent breakage or a release to the environment • Compatible with the contents of the universal waste • Lacking evidence of leakage, spillage, or damage that could cause leakage, including the escape of mercury by volatilization, under reasonably foreseeable conditions <p>Note: Containers, tanks, or transport vehicles of recalled pesticides must be additionally marked with the label that was on or accompanied the product when it was sold or distributed.</p>	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>4. Are all universal waste containers, tanks, vehicles, or vessels labeled or marked properly?</p> <p>“Universal Waste - Battery(ies),” or “Waste Battery(ies),” or “Used Battery(ies)” “Universal Waste - Pesticide(s)” or “Waste Pesticide(s)” “Universal Waste - Mercury Containing Equipment,” “Waste Mercury-Containing Equipment,” or “Used Mercury-Containing Equipment” “Universal Waste - Mercury Thermostat(s),” “Waste Mercury Thermostat(s),” or “Used Mercury Thermostat(s)” “Universal Waste - Lamp(s),” or “Waste Lamp(s),” or “Used Lamp(s)”</p>	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>5. Can the SQH demonstrate the length of time the universal waste has been accumulated from the date it became a waste or the date it was received from another handler?</p> <p>Accumulation time may be demonstrated by any of the following:</p> <ul style="list-style-type: none"> • Marking or labeling each container with the earliest date the waste is generated or received • Marking or labeling the individual item of waste with the date it was generated or received • Maintaining an inventory system identifying the date the waste was generated or received • Placing the universal waste in a specific accumulation area identified with the earliest date the waste was generated or received • Using some other method that clearly demonstrates the length of accumulation time 	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>6. Does the SQH accumulate universal waste for no longer than one year from the date generated or received from another handler?</p> <p>Note: The SQH will become a Large Quantity Handler (LQH) of universal waste if inventory exceeds 5000 kg (11,025 lbs.) on site.</p> <p>Note: The SQH can accumulate universal waste for longer than one year, to facilitate proper recovery, treatment, or disposal, but the SQH bears the burden of proving such.</p>	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>7. If there was a release of universal waste, did the SQH immediately contain all releases of universal waste and other residues for universal wastes?</p> <p>Note: Universal Waste batteries, pesticides, mercury containing material (i.e. thermostats), and lamps that are broken or show evidence of leakage or spillage must be placed in closed, structurally sound containers and managed accordingly. Wastes that are generated by cleaning up spills of universal wastes should be managed according to hazardous waste rules, if the SQH accurately determines they are hazardous.</p>	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>8. Did the SQH inform all employees on the proper handling and emergency procedures appropriate to the types of universal waste handled at the facility?</p>	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>9. Does the SQH send the universal waste to an appropriate recycler, destination facility, foreign destination or another handler?</p> <p>Note: Records for each shipment of universal waste sent off-site is highly recommended to show that the universal waste was sent to an appropriate entity. The records could include:</p> <ul style="list-style-type: none"> • The name and address of the facility to which the waste was sent. • The quantity of each type of universal waste sent. • The date the shipment of universal waste left the facility. 	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>
<p>10. If the SQH is self-transporting universal waste, did they comply with 40 CFR § 273 Subpart D?</p>	<p>Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/></p> <p><input type="checkbox"/> Comment?</p>

POLLUTION PREVENTION PLAN
(A.R.S. 49-963)

Pollution Prevention Plan	
1. Did the facility prepare and implement a Pollution Prevention Plan that addresses a reduction in the use of toxic substances and generation of hazardous wastes, covering at least a two year time frame, on file with ADEQ?	Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/> <input type="checkbox"/> Comment?
2. Did the facility owner or operator submit an annual progress report to ADEQ?	Y: <input type="checkbox"/> N: <input type="checkbox"/> N/A: <input checked="" type="checkbox"/> P: <input type="checkbox"/> <input type="checkbox"/> Comment?

ADEQ Hazardous Waste Inspection Photo Log

Date of Inspection: April 14, 2021

Facility Information

Facility Name: Page-Trowbridge Ranch Landfill

Facility Location: Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Key Inspectors

Lead Inspector: Mario Barrios

Photographer: Mario Barrios

Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: Mario Barrios

Date: April 14, 2021



Photo 1

Location: Page-Trowbridge Ranch Landfill

Description: Signage not in good condition along the perimeter fence



Photo 2

Location: CMP Culvert East

Description: The sediment filters in the swale were not staked in place nor in good condition.



Photo 3

Location: CMP Culvert East

Description: The culvert was locked and the interior channel of the culvert was unobstructed.

Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: Mario Barrios

Date: April 14, 2021



Photo 4

Location: MW #2

Description: Overview



Photo 5

Location: MW #2

Description: Close-up view



Photo 6

Location: Page-Trowbridge Ranch Landfill

Description: Survey monument

Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: Mario Barrios

Date: April 14, 2021



Photo 7

Location: Page-Trowbridge Ranch Landfill

Description: Survey monument



Photo 8

Location: Page-Trowbridge Ranch Landfill

Description: Survey monument



Photo 9

Location: Page-Trowbridge Ranch Landfill

Description: Survey monument

Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: Mario Barrios

Date: April 14, 2021



Photo 10

Location: CMP Culvert East

Description: The sediment filters in the swale were not staked in place nor in good condition.



Photo 11

Location: CMP Culvert South

Description: The sediment filters in the swale were not staked in place nor in good condition.



Photo 12

Location: CMP Culvert South

Description: The sediment filters in the swale were not staked in place nor in good condition.

Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: Mario Barrios

Date: April 14, 2021



Photo 13

Location: CMP Culvert South

Description: The culvert was locked and the interior channel of the culvert was unobstructed.



Photo 14

Location: MW #4

Description: Overview



Photo 15

Location: MW #4

Description: Close-up view

Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: Mario Barrios

Date: April 14, 2021



Photo 16

Location: Page-Trowbridge Ranch Landfill

Description: Main entrance signage



Photo 17

Location: Page-Trowbridge Ranch Landfill

Description: Signage along the east side perimeter fence



Photo 18

Location: Page-Trowbridge Ranch Landfill

Description: Vegetation along the perimeter fence on the east side of the property

Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: Mario Barrios

Date: April 14, 2021



Photo 19

Location: Page-Trowbridge Ranch Landfill

Description: Signage along the east side perimeter fence



Photo 20

Location: Page-Trowbridge Ranch Landfill

Description: Survey monument



Photo 21

Location: Page-Trowbridge Ranch Landfill

Description: Survey monument

Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: Mario Barrios

Date: April 14, 2021



Photo 22

Location: Culvert Crossing #2

Description: Overview from the main entrance towards Cell B



Photo 23

Location: Cell B Cover

Description: Overview



Photo 24

Location: MW #3

Description: Overview

Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: Mario Barrios

Date: April 14, 2021



Photo 25

Location: MW #3

Description: Locked



Photo 26

Location: Cell B Cover

Description: Overview of the erosion



Photo 27

Location: Cell B Cover

Description: Close-up view of the erosion in Photo 26

Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: Mario Barrios

Date: April 14, 2021



Photo 28

Location: SGD DP

Description: Close-up view



Photo 29

Location: SGD DP

Description: Close-up view of the cap



Photo 30

Location: SGD DP

Description: Not locked

Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: Mario Barrios

Date: April 14, 2021



Photo 31

Location: Cell A Cover

Description: Overview of the erosion



Photo 32

Location: Cell A Cover

Description: Overview of the erosion



Photo 33

Location: Cell A Cover

Description: Overview of the erosion

Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: Mario Barrios

Date: April 14, 2021



Photo 34

Location: Cell A Cover

Description: Woody vegetation



Photo 35

Location: Cell B Cover

Description: Woody vegetation



Photo 36

Location: Cell A Cover

Description: Overview of the erosion on the south west slope

Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: Mario Barrios

Date: April 14, 2021



Photo 37

Location: Soil Vapor Extraction (SVE)

Description: Close-up view of the erosion by the SVE motor



Photo 38

Location: Soil Vapor Extraction (SVE)

Description: Overview of the SVE



Photo 39

Location: Soil Vapor Extraction (SVE)

Description: SVE motor belts in good condition

Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: Mario Barrios

Date: April 14, 2021



Photo 40

Location: Soil Vapor Extraction (SVE)

Description: Properly maintained fire extinguisher



Photo 41

Location: Soil Vapor Extraction (SVE)

Description: Properly maintained fire extinguisher



Photo 42

Location: Culvert Crossing #1

Description: The interior channel of each culvert was unobstructed.

Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: Mario Barrios

Date: April 14, 2021



Photo 43

Location: Cell A Cover

Description: Woody vegetation



Photo 44

Location: Cell A Cover

Description: Close-up view of a mesquite tree (woody vegetation)



Photo 45

Location: Cell A Cover

Description: Woody vegetation

Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: Mario Barrios

Date: April 14, 2021



Photo 46

Location: Page-Trowbridge Ranch Landfill

Description: Survey monument



Photo 47

Location: Page-Trowbridge Ranch Landfill

Description: Survey monument



Photo 48

Location: Culvert Crossing #1

Description: The interior channel of each culvert was unobstructed.

Page-Trowbridge Ranch Landfill - Latitude: 32.60694 / Longitude: 110.895976

Place ID: 3166

Photographer: Mario Barrios

Date: April 14, 2021



Photo 49

Location: MW #1

Description: Overview



Photo 50

Location: MW #5

Description: Locked



Photo 51

Location: MW #5

Description: Overview



ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY FIELD INSPECTION EXIT DEBRIEFING

Site Name/ID No(s): Page-Trowbridge Ranch Landfill Inspection Date: April 14, 2021

Location: Latitude: 32.60694 / Longitude: 110.895976 Environmental Program(s): Hazardous Waste Program

You have just received an inspection conducted to evaluate compliance with the Arizona Revised Statutes, Title 49; the Arizona Administrative Code; and applicable permits/licenses. The following is intended to summarize potential deficiencies noted during the inspection, items you should consider for follow up action, or additional information requested by the inspector that is necessary to make a compliance determination. Be advised that additional reports and correspondence may be forthcoming from ADEQ. Any omissions in this exit debriefing shall not be construed as a determination of compliance with applicable laws and rules.

Observations:

- **During the physical inspection ADEQ inspectors observed:**
 1. The SGD DP well lock was not working;
 2. A 160 – 200 foot length of perimeter fence without any signage;
 3. Culvert sediment filters not staked in place nor in good condition;
 4. Woody vegetation growth on top of Cell A cover (mesquite tree);
 5. Vegetation along the perimeter fence on the east side of the property;
- **During records review ADEQ inspectors discovered that the facility representative failed to provide:**
 1. Updated training records for personnel;

Fixed at the time of the inspection:

- Nothing was addressed during the course of the inspection.

Recommendations:

- Develop a Quick Reference Guide;
- Replace signage along the east side of perimeter fence, south of the main gate;

Facility Representative

Inspector

Name: Jeffrey Christensen

Name: Mario Barrios

Signature: 

Signature: 

Please submit your response to your inspector's attention at the Arizona Department of Environmental Quality, 1110 West Washington Street, Phoenix, Arizona 85007 or via email.

RISK MANAGEMENT SERVICES

University Services Annex 300B
220 W Sixth St., East Building 2nd Floor
PO Box 210300
Tucson, Arizona 85721-0300

Ofc: (520) 621-1790
Fax: (520) 621-3706

<http://risk.arizona.edu/>



May 12, 2021

Arizona Department of Environmental Quality
Hazardous Waste Unit, Attn: Brandon T. Green
1110 W Washington St.
Phoenix, AZ 85007

Subject: Opportunity to Correct Deficiencies
Page-Trowbridge Ranch Landfill, Place ID 3166

Dear Mr. Green:

The University of Arizona has completed the following actions to address deficiencies identified in your letter dated April 16, 2021.

- 1. ADEQ inspectors observed an insufficient number of security signs along the west side of the perimeter fence.**

Risk Management Services (RMS) personnel attached a security sign in the space on the perimeter fence where the inspectors identified the deficiency on Friday, May 7, 2021. Picture 1 shows where the sign was missing. Picture 2 shows the installed sign. Additionally, RMS replaced two signs that were deemed questionable during the site inspection due to normal wear and sun damage. The three installed signs have the same warning language.

- 2. ADEQ observed a mesquite tree seedling sprouted from the Cell A cover.**

RMS removed the mesquite tree on Thursday, April 15, 2021. Picture 3 shows the dead tree. Other potentially woody vegetation was removed from Cell A cover on Friday, May 7, 2021.

- 3. ADEQ observed that the culvert sediment filters were not staked in place nor in good condition.**

RMS installed new straw wattles on Friday, May 7, 2021. Picture 4 is the west culvert. Picture 5 is the south culvert.



4. Facility representatives failed to provide adequate and up to date training records for personnel.

Annual PTRL training is done in-house by the Manager of Environmental Programs.

RMS requests that the 45-day completion schedule be extended as outlined below. A new Hazardous Waste Specialist is being hired to replace a staff member who was promoted internally. RMS would like to train everyone at the same time instead of having a special class for one person. The proposed completion day for training is Friday, July 30, 2021,

Job descriptions for the Manager of Environmental Programs, Hazardous Waste Supervisor and Hazardous Waste Specialist are in the Supporting Documentation section. The Manager of Environmental Programs is the new title for the position formerly designated as Health/Safety Officer.

Annual training follows the requirements of Section 4. Training Content in the Training and Qualifications Plan for Page-Trowbridge Ranch Landfill. A copy of the module's title slide is included in the Supporting Documentation section. Copies of RCRA, DOT and HAZWOPER training for the Manager of Environmental Programs, Hazardous Waste Supervisor and Hazardous Waste Specialist are provided.

5. Additional items mentioned during the exit interview.

The tall grass growing in the north east corner of the fence has been removed. Pictures 6 and 7 are before and after photos.

The three burrowing locations in the cover of Cell B were leveled and compacted using a tamper. Pictures 8 and 9 are before and after photos of one area.

The SGD-DP wellhead was unlocked during the inspection. The old lock was replaced. See Picture 10 and 11.



I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based upon my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment for knowing violations.

Sincerely,



Steven C. Holland MS CRM ARM
Chief Risk Officer, University of Arizona

Cc: Jeff Christensen
PTRL File

Attached: 11 Photos
Training Documentation



Supporting Documentation

Picture 1 Location of missing sign



Picture 2 Installed sign



Picture 4 Removed mesquite tree



Picture 4 Installed wattle west culvert



Picture 5 Installed wattle south culvert



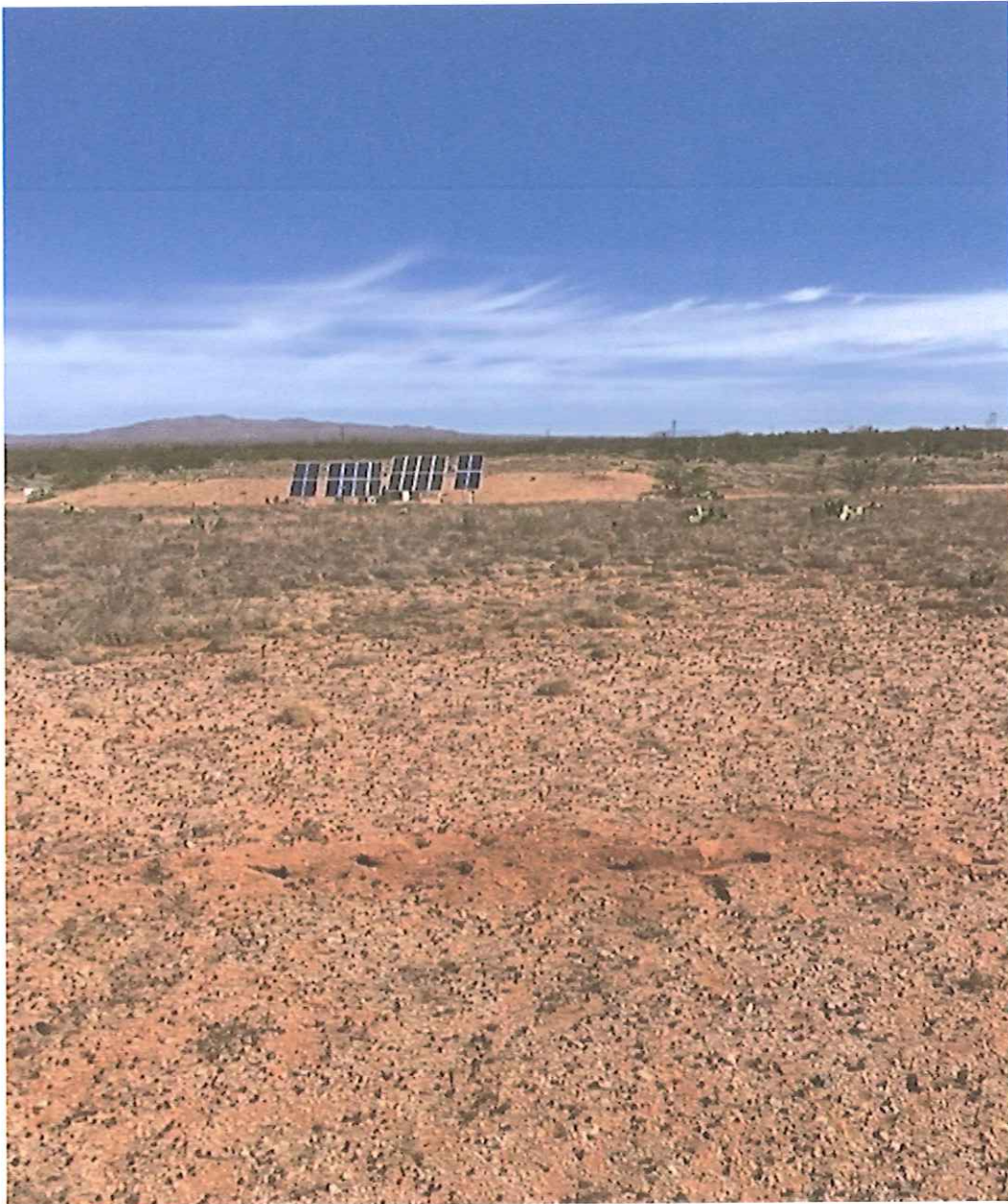
Picture 6 Grass northeast corner of fence



Picture 7 Removed grass northeast corner of fence



Picture 8 Burrowing Cell B cover



Picture 9 Repaired burrowing Cell B cover



Picture 10 Unlocked SGD-DP wellhead



Picture 11 Locked SGD-DP wellhead



Training Documentation



Human Resources

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Health / Safety Officer

Hourly Min/Mid/Max: \$11.00/\$13.48/\$16.65

Annual Min/Mid/Max: \$22,968/\$28,146/\$34,765

Position Type: Classified

FLSA: Exempt

Purpose of Classification:

Plans, organizes and directs university safety program. Enforces compliance with state and federal health, safety and fire codes and reduces or prevents safety hazards, dangers or accidents in areas of hazardous materials, fire, life, occupational and/or industrial hygiene safety.

Distinguishing Characteristics:

This is second in a series of two classifications. It is distinguished from the Health/Safety Specialist in that incumbents typically oversee a safety program that is broad in scope, including all areas mentioned and work independently making decisions affecting program with little guidance. Incumbents may be exposed to hazardous or dangerous situations in course of work.

Example of Duties:

- Interprets and evaluates university compliance with applicable safety codes.
- Develops, recommends and implements policy on health/safety protection; develops accident prevention and loss control systems and programs and ensures implementation throughout campus.
- Reviews construction plans for new and existing buildings to ensure compliance with fire, health and carries through completions.

Ask HR

- Coordinates with architects, engineers and construction managers to discuss safety precautions and requirements, recommendations and code analysis.
- Monitors safety inspection program; evaluates program maintenance and determines priority of existing hazard correction; makes random visits with inspectors.
- Monitors worker's compensation program; oversees investigations; analyzes trends to identify problem areas and recommend action to reduce risk and financial loss.
- Advises, coordinates with and provides technical guidance to university staff, faculty and administrators regarding safety codes, policies and procedures.
- Maintains relationship with regulatory agency representatives to remain current on changing standards and interpretations; serves as contact person for university.
- Develops and implements health/safety educational programs or activities to improve awareness of safety and protection procedures.
- Conducts or directs studies and statistical analysis to identify hazards and evaluate potential for loss; prepares report on findings.
- Supervises and coordinates work activities of one to two Health/Safety Specialists.
- Ensures required licenses or registrations are maintained for hazardous materials.
- Compiles budget estimates and information for special projects.

Knowledge, Skills, and Abilities:

- Knowledge of the principles and practices of occupational safety.
- Knowledge of federal, state and local laws and regulations governing safety procedures and policies.
- Skill in interpreting and applying federal, state and local safety laws and regulations.
- Skill in developing safety policies.
- Skill in investigating and analyzing accidents and their causes.
- Ability to effectively communicate.

Minimum Qualifications:

- Bachelor's degree in Industrial Engineering or related field AND four years experience in safety, fire prevention, environmental health, industrial hygiene or related field, which includes one year of supervisory experience; OR,
- Eight years experience in safety, fire prevention, environmental health, industrial hygiene or related field, which includes one year of supervisory experience; OR,
- Any equivalent combination of experience, training and/or education approved by Human Resources.

Created Date: 10/1/90

Revised Date: 3/13/06



Human Resources^(L)



Certificate of Attendance

2020 ANNUAL RCRA SEMINAR

Awarded to:

Jeff Christensen

September 4, 2020

*Issue Date
Tucson, Arizona*

David Mack

SAEMS President

Certificate of Achievement

This is to certify that

Jeff Christensen

has successfully completed the 8 hour course

DOT Hazmat Transportation Refresher

In compliance with 49 CFR Subpart H 172.704 (a)(1), (a)(2), (a)(3), (a)(4)

7 Professional Development Hours

Instructor: Janet Gallup

Training Date: May 5, 2021

Expiration Date: May 5, 2024

Certificate #: **0109383342**



A handwritten signature in black ink that reads "Kasey Moran".

Kasey Moran, CEO

Corporate Mailing Address & Tucson Training Center: 5532 E. Grant Rd. | Tucson, AZ 85712 | 520.321.1999
Phoenix Training Center: 2516 E. University Dr., Ste. 200 | Phoenix, AZ 85034 | 602.923.9673

Prevention, Preparedness and Response (P2R) Consortium

a program within

The University of Texas Health Science Center at Houston (UTHealth) School of Public Health

This is to certify that

Jeff Christensen

has participated in the educational activity entitled

8 Hour HAZWOPER Refresher

ESI2001

Edinburg, Texas

in Dallas, Texas

and has earned 8 Continuing Education Hours.



John Guglielmo, Instructor

October 22, 2020
Date(s) of Program



Janelle Rios, PhD
Director

Prevention, Preparedness and Response (P2R) Consortium



Human Resources

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Hazardous Waste Supervisor

Hourly Min/Mid/Max: \$11.00/\$13.48/\$16.65

Annual Min/Mid/Max: \$22,968/\$28,146/\$34,765

Position Type: Classified

FLSA: Exempt

Purpose of Classification:

Plans, organizes and directs the university hazardous waste and environmental compliance sampling programs.

Distinguishing Characteristics:

This is fourth in a series of four classifications. It is distinguished from the Hazardous Waste Specialist in that incumbents have a greater degree of expertise, responsibility and independence in performing duties. Incumbents supervise Environmental Compliance Technicians and Leads, coordinate a hazardous waste landfill program and coordinate a waste water program.

Example of Duties:

- Supervises two or more full-time employees, or their equivalent, on a regular basis.
- Makes decisions regarding hiring, evaluation, promotion and termination of employees, or makes related recommendations that are given particular weight.
- Coordinates, prioritizes and schedules activities related to the collection, processing, storage, transportation and disposal of university generated hazardous waste; coordinates the hazardous waste land fill program.
- Coordinates an environmental sampling program which includes hazardous materials, wastewater and soil, ensuring federal, state and local regulatory requirements are met.
- Generates and maintains appropriate documentation and recordkeeping to meet environmental regulations.

Ask HR

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Generate and maintain appropriate documentation and record keeping to meet environmental regulations.

- Advises faculty, staff and students regarding proper waste management techniques and provides recommendations for appropriate action upon request.
- Coordinates response to chemical hazardous materials incidents at university facilities, directing appropriate resources of staff, equipment and expertise to properly and safely mitigate hazards and address the emergency.
- Develops and presents educational training sessions to faculty, staff and students regarding hazardous waste handling and other environmental compliance programs.
- Advises management of the status of ongoing environmental compliance activities and makes recommendations for appropriate actions.
- Interacts with hazardous waste disposal vendors to facilitate efficient, cost effective and timely off-site transportation and disposal of hazardous wastes.
- Researches treatment and disposal technologies to identify viable methods required to meet anticipated regulatory changes and/or proper handling of atypical, difficult to dispose of waste materials.

Knowledge, Skills, and Abilities:

- Knowledge of supervisory practices and principles.
- Knowledge of local, state and federal rules and regulations on hazardous materials and environmental sampling.
- Knowledge of hazardous materials and environmental sampling management practice and techniques.
- Skill in supervising personnel and allocating appropriate resources to address simultaneous multiple program requirements.
- Ability to effectively communicate.

Minimum Qualifications:

- Bachelor's degree in Chemistry, Safety or Industrial Engineering or related field AND three years experience in hazardous materials management; OR,
- Seven years hazardous materials management experience; OR,
- Any equivalent combination of experience, training and/or education approved by Human Resources.
- Possession of a current Arizona Type C driver's license upon employment.

Created Date: 10/1/90

Revised Date: 3/13/06



Human Resources^(L)

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Certificate of Attendance

2020 ANNUAL RCRA SEMINAR

Awarded to:

Joe Divijak

September 4, 2020

*Issue Date
Tucson, Arizona*

David Mack

SAEMS President

Prevention, Preparedness and Response (P2R) Consortium

a program within
The University of Texas Health Science Center at Houston (UTHealth) School of Public Health

This is to certify that

Joe Divijak

has participated in the educational activity entitled

8 Hour HAZWOPER Refresher

ESI2001
Edinburg, Texas

in Dallas, Texas

and has earned 8 Continuing Education Hours.



John Guglielmo, Instructor

October 29, 2020
Date(s) of Program



Janelle Rios, PhD
Director

Prevention, Preparedness and Response (P2R) Consortium



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Hazardous Waste Specialist

Hourly Min/Mid/Max: \$11.00/\$13.48/\$16.65

Annual Min/Mid/Max: \$22,968/\$28,146/\$34,765

Position Type: Classified

FLSA: Non-exempt

Purpose of Classification:

Plans, organizes, coordinates and schedules use of hazardous waste accumulation facility and controls hazardous waste disposal techniques used on campus.

Distinguishing Characteristics:

This is third in a series of four classifications and is distinguished from the Environmental Compliance Technician, Lead in that the incumbent is responsible for planning, coordinating, scheduling and controlling hazardous waste disposal. Works with hazardous waste daily and may be exposed to air contamination or hazardous materials in the case of a spill or accident.

Example of Duties:

- Collects, transports, segregates, accumulates and performs initial disposal of hazardous waste for various university departments; determines proper method of accumulation and disposal based on hazard classes and compatibility of chemicals; packages documents and labels waste for shipment to appropriate disposal facilities pursuant to disposal facility, state and federal requirements.
- Maintains accumulation facility records and data base on all accumulated hazardous waste streams.
- Coordinates the collection of campus-generated hazardous chemical/radioactive waste; assists in the preparation for final disposal of infectious/biohazardous waste.

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Preparation for final disposal of inorganic/organic hazardous waste.

- Advises faculty, staff and students regarding proper hazardous waste management techniques and provides technical assistance upon request for campus departments.
- Responds to hazardous waste releases on campus using appropriate clean-up and safety methods.
- Analyzes and tests unknown hazardous waste streams to identify type of classification and allow for proper disposal.
- Presents educational or training sessions to faculty, staff and students regarding hazardous materials and waste management handling techniques.
- Identifies and prepares for disposal of asbestos materials.
- May supervise or monitor work activities of subordinates.
- Operates and maintains the elementary neutralization and waste water treatment systems and related equipment necessary in managing waste for proper disposal.

Knowledge, Skills, and Abilities:

- Knowledge of local, state and federal rules and regulations on hazardous materials management.
- Knowledge of hazardous materials management practices and techniques.
- Knowledge of chemical compatibilities and hazard classes.
- Skill in analyzing hazardous waste.
- Ability to effectively communicate.

Minimum Qualifications:

- Bachelor's degree in Chemistry, Safety or Industrial Engineering or related field AND two years experience in hazardous materials management; OR,
- Six years hazardous materials management experience; OR,
- Any equivalent combination of experience, training and/or education approved by Human Resources.
- Possession of a current State of Arizona Type C driver's license upon employment.

Created Date: 10/1/90

Revised Date: 3/13/06



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2020 ANNUAL RCRA SEMINAR

Awarded to:

Mike Garcia

September 4, 2020

Issue Date
Tucson, Arizona

David Mack

SAEMS President

Prevention, Preparedness and Response (P2R) Consortium

a program within

The University of Texas Health Science Center at Houston (UTHealth) School of Public Health

This is to certify that

Michael Garcia

has participated in the educational activity entitled

8 Hour HAZWOPER Refresher

ESI2001

Edinburg, Texas

in Dallas, Texas

and has earned 8 Continuing Education Hours.



John Guglielmo, Instructor

October 29, 2020
Date(s) of Program



Janelle Rios, PhD
Director

Prevention, Preparedness and Response (P2R) Consortium



Certificate of Attendance

2020 ANNUAL RCRA SEMINAR

Awarded to:

Armando Jimenez

September 4, 2020

Issue Date
Tucson, Arizona

David Mack

SAEMS President

Prevention, Preparedness and Response (P2R) Consortium

a program within
The University of Texas Health Science Center at Houston (UTHealth) School of Public Health

This is to certify that

Armando Jimenez

has participated in the educational activity entitled

8 Hour HAZWOPER Refresher

ESI2001
Edinburg, Texas

in Dallas, Texas

and has earned 8 Continuing Education Hours.



John Guglielmo, Instructor



Janelle Rios, PhD
Director

Prevention, Preparedness and Response (P2R) Consortium

October 29, 2020
Date(s) of Program

**TRAINING AND QUALIFICATIONS PLAN
FOR
PAGE-TROWBRIDGE RANCH LANDFILL**

**North 32°36' 26.87"
West 110°53' 45.83"
(Soil Vapor Extraction Array)**

**University of Arizona
Department of Risk Management Services
Township 9 South, Range 14 East, Gila and Salt River
Base and Meridian, Southern Half of Section 27 and Northern Half of Section 34
Pinal County, Arizona
EPA ID NO. AZD980665814**

REVISED MARCH 2012

TRAINING AND QUALIFICATIONS PLAN

The Training and Qualifications Plan is designed to address the requirements of 40 CFR 270.14(b) (12), 40 CFR 264.16, 40 CFR 264.179 and 40 CFR Subpart CC. This plan also addresses the training and medical monitoring requirements of 29 CFR 1910.120, the OSHA Standard for Hazardous Waste Operations. The general approach and philosophy of the training program is to utilize a combination of classroom instruction and supervised on-the-job training to provide employees with the knowledge necessary to perform the sampling protocols and emergency procedures for the Page-Trowbridge Ranch Landfill (PTRL) in a manner that maintains compliance and protects health, safety and the environment.

1. OUTLINE OF TRAINING AND QUALIFICATIONS PLAN

The major components of the Training and Qualifications Plan are hiring qualifications and job descriptions, initial training upon hiring, medical monitoring, and ongoing training of current employees. Exhibit 1 provides an outline of each of these program components and the various training topics associated with each other.

2. JOB DESCRIPTIONS

There are several job titles within the university personnel system that have significant job responsibilities involving the management of hazardous waste. These include the Assistant Vice President for Risk Management, Director of Occupational and Environmental Health and Safety, Environmental Safety Officer, Hazardous Waste Supervisor, and Hazardous Waste Specialist. Exhibit 2 includes copies of each of these job descriptions, outlining specific responsibilities of each position and the training required for the job description.

3. TRAINING DIRECTOR

The Training Director for the UA hazardous waste program is the Hazardous Waste Supervisor. This position is responsible for ensuring that all required training is completed on schedule, and that records are kept up to date. The Training Director, although highly knowledgeable about hazardous waste issues, typically does not conduct all of the training him/herself, but utilizes a variety of resources to accomplish this task. These resources include other Risk Management staff such as the Industrial Hygienists, the Occupational Safety Officer, and others with specific knowledge. Additional resources include video tapes and printed reference materials available from the Risk Management in-house library. Professional development courses offered at conferences and by professional organizations are also used to complete training requirements.

3.a. Training Director Qualifications

The Training Director receives the annual 8 Hour HAZWOPER Refresher, 8 Hour HAZWOPER Supervisor Training independently from outside vendors to segregate his training from internal training he provides to other PTRL staff. Train the Trainer, instructional technology or adult education themed classes are required every three years to maintain competency in training skills. Course curriculum, instructional methodology, hands-on exercises and other components of all UA environmental compliance training is developed to meet the criteria outlined in ANSI standard *ANSI/ASSE Z490.1-2009 Criteria for Accepted Practices in Safety, Health, and Environmental Training*.

4. TRAINING CONTENT

4.a. Regulatory Overview

This session covers in detail the regulatory status of PTRL as a closed disposal facility. An overview is conducted of major environmental regulatory programs and how they affect PTRL. Of paramount importance in this discussion are the Resource Conservation and Recovery Act (RCRA), and its subsequent amendments. Other regulatory programs reviewed during this session include the Comprehensive Environmental Compensation and Liability Act (CERCLA), and OSHA Hazardous Waste Operations Standard (HAZWOPER).

During this session, new employees are provided historical documentation to read that outlines previous compliance inspections, notices of violation, and the responses to those notices. This provides an excellent perspective on the types of typical compliance problems that have arisen during the operation of the program.

The Site Health and Safety Plan is introduced and discussed during this session.

The Site Inspection Report and Procedure is discussed with emphasis on the need for walking the perimeter, the cell caps and recording any deficiencies in writing and photograph. The Inspection Form is reviewed. The discussion includes potential deficiencies and a consensus is reached to ensure consistent inspections by authorized personnel. The Assistant Vice President for Risk Management, Director of Occupational and Environmental Health and Safety, Environmental Safety Officer, Hazardous Waste Supervisor are authorized to perform the required inspections but all employees who work at PTRL receive the training.

4.b. Hazardous Materials Chemistry and Toxicology

This session includes a review of the basic hazard classes of waste interred at PTRL, and the chemical characteristics that define these various hazards. The principal characteristics of concern include corrosivity, ignitability, reactivity, and toxicity. Descriptive hazard terms are also explained, including pH, vapor pressure, flashpoint, LEL/UEL, oxidizers, reductants, and pyrophoric and peroxidizable compounds. A variety of references and videotapes are also used in this session. An important component of this portion of the training is to teach employees how and where to locate specific hazard information needed to properly handle issues that may arise while at PTRL.

The Toxicology component of this review concentrates on acute and chronic health hazards of the waste types typically generated from university activities. Important concepts that must be well understood include dose, routes of entry, acute vs. chronic, and exposure standards such as Permissible Exposure Limits (PEL), Threshold Limit Values (TLV), and Immediately Dangerous to Life and Health (IDLH). In addition to these concepts, definitions are explained for terms such as carcinogen, mutagen, teratogen, and time-weighted-average.

4.c. Sampling Protocols

This session introduces general principles of sampling based on the following guidance documents: *Region 4 U.S. Environmental Protection Agency Science and Ecosystem Support Division Groundwater Sampling October 28, 2011* and *Arizona Department of Environmental Quality Soil Vapor Sampling Guidance July 10, 2008*. These guidance documents are included as Exhibit 4 to this Training and Qualifications Plan. A complete step-by-step instruction on the groundwater and soil vapor sampling protocols is included. Equipment, sampling containers and pre-sampling event activities are discussed. Hands-on instruction is given with sample containers and equipment to provide familiarity with container handling. This session is followed by additional instruction that is performed during on-the-job activities.

4.d. Safety and Accident Prevention

Due to its remote location safety is a paramount concern at PTRL. This session provides specific information to employees on how to conduct their activities safely and efficiently without incident. Topics include fire prevention, proper lifting, and preventing heat related incidents. Employees are also given specific instructions for action to be taken in the event of an accident or injury in the workplace, including identifying locations of emergency medical assistance if needed.

Employees also receive training on the proper selection and use of personal protective equipment including protective eyewear, gloves and steel toed boots.,

Hazardous waste personnel are enrolled in the UA Medical Surveillance Program. Personnel are required to complete a Medical Questionnaire and undergo a physical exam prior to participating in hazardous waste management activities including PTRL sampling events

Employees are made aware of their rights under OSHA, specifically the HAZWOPER Standard (29 CFR 1910.120), and are encouraged to immediately report any safety concerns to their supervisor without fear of reprisal.

The medical monitoring program in place for hazardous waste employees is discussed in detail to describe the frequency and content of medical exams, and how the results will be reported and maintained.

4.f. Emergency Response and Contingency Plan Training

Employees are advised of the types of emergencies that can occur during the sampling events at PTRL, and the appropriate response to each. Topics include response to fire, explosion, or other accident that threatens health or the environment.

The Contingency Plan (Appendix E) is reviewed in detail to explain who the designated Emergency Coordinators are, and what criteria are specified for implementation of the Plan. Various scenarios are outlined in a discussion setting to enhance individual knowledge and awareness of the events that are likely to be associated with different emergencies.

5. TRAINING PLAN IMPLEMENTATION

All new employees shall not work at PTRL until all training requirements have been completed. This process is typically completed within the first two weeks of employment, but in no case shall this process take longer than 90 days from the start of employment. A certificate of completion will be awarded at the conclusion of training. An example of the certificate is included as Exhibit 3. All records of training completion are maintained at the HWMF Office, 1548-2 N. Ring Rd., Tucson, AZ, 85719. Training records are maintained with employment records for a minimum of three years after termination. Medical monitoring records are maintained for a minimum of 30 years after termination.

All training is repeated annually for all staff members who work at PTRL, or are designated as Emergency Coordinators in the Contingency Plan. Additionally, the Director and supervisors work to identify additional training opportunities as they become available. These include professional seminars, conferences, and membership in professional organizations with applicable interests.

EXHIBIT 1

Training Program Outline

TRAINING PROGRAM OUTLINE

I. Regulatory Overview

- A. UA PTRL Regulatory Status
 - 1. Closed TSDF Status
 - 2. Discussion of Compliance History
- B. Applicable Regulatory Programs
 - 1. Resource Conservation and Recovery Act (RCRA)
 - 2. Comprehensive Environmental Response, Compensation and Liability Act (CERCLA)
 - 3. OSHA Hazardous Waste Operations Standard (HAZWOPER)
- C. Site Health and Safety Plan
- D. Site Inspection Procedure and Report

II. Hazardous Materials Chemistry and Toxicology

- A. Chemistry of Hazardous Materials
 - 1. Chemical nomenclature
 - 2. Incompatibility
 - 3. Definitions
 - a. Corrosive
 - b. Ignitable
 - c. Reactive
 - d. Toxic
 - 4. Reaction rate
 - 5. Chemical equilibrium
 - 6. Definitions/explanations of specific terms
 - a. pH
 - b. Vapor pressure
 - c. Flashpoint, LEL/UEL
 - d. Oxidizers/reductants
 - e. Pyrophoric materials

f. Peroxidizable compounds

B. Toxicology of Hazardous Materials

1. Routes of entry to the body
2. Dose/response relationships
3. Acute vs. chronic exposure
4. Definitions/explanations of specific terms
 - a. Toxicity
 - b. Carcinogen
 - c. Mutagen
 - d. Teratogen
 - e. Time weighted average
 - f. Others as applicable
5. Latency effects
6. Exposure standards
 - a. Threshold limit values (TLV)
 - b. Permissible exposure limits (PEL)
 - c. Immediately dangerous to life and health (IDLH)

C. Hazards of Specific Materials

1. Halogenated hydrocarbons
2. Ketones/alcohols
3. Metals
4. Reactives
5. Pesticides

III. Sampling Protocols

A. Sampling QA/QC

- a. Sampling Method
- b. Sampling Equipment Maintenance and Calibration
- c. Control Samples (trip blanks, field blanks)
- d. Standard Operating Procedures
- e. Chain of Custody, Transportation, Sample Holding Times

B. Sampling Protocols

1. Groundwater Detection Monitoring Plan
 - a. General Principles of Sample Collection
 1. Groundwater Sampling – EPA Science

and Ecosystem Support Division Region 4
Operating Procedure 10/28/11

- a. Volatile Organic Compounds
 1. Sample Bottles/Preservatives
 2. Container Handling During Sampling
2. Soil Vapor Monitoring Well Procedure
 - a. General Principles of Sample Collection
 1. Soil Vapor Sampling Guidance – ADEQ 7/10/08
 - a. Well Purging
 - b. Container Handling During Sampling
3. Soil Vapor Extraction System Sampling Procedure
 - a. General Principles of Sample Collection
 1. Soil Vapor Sampling Guidance – ADEQ 7/10/08
 - a. Container Handling During Sampling

IV. Safety and Accident Prevention

A. General Safety Considerations

1. Fire prevention and response
2. Proper lifting techniques
3. Maintenance of work areas and equipment
4. Accident reporting and investigation
5. First aid and emergency medical resources

B. Personal Protective Equipment

1. Skin protection
 - a. Gloves-types and limitations
 - b. Safety eyewear-types and limitations
 - c. Proper footwear

C. Medical Monitoring Program

1. Requirements of 29 CFR 1910.120
2. Frequency and content of examinations
3. Results reporting
4. Recordkeeping

V. Emergency Response and Contingency Plan Training

A. Types of Emergencies and Response

1. Fire

2. Explosion
3. Chemical release
4. Criteria to shutdown PTRL activities

B. Emergency Equipment

1. Emergency Response Equipment Inventory
2. Equipment inspection, maintenance, and replacement
3. Communication and alarm systems
4. Environmental monitoring equipment

C. Contingency Plan

1. Criteria for implementation of the Contingency Plan
2. Evacuation routes and notification
3. Emergency coordinators
4. Reporting and recordkeeping
5. Coordination with outside response agencies

REGULATORY COMPLIANCE
TRAINING REQUIREMENTS

HAZARDOUS WASTE

40CFR265.16 **RCRA** (Applicable to LQG and TSDF)

<u>Worker</u>	<u>Initial</u>	<u>Annual Refresher</u>	<u>Certification</u>
New	No Specific Hours	No Specific Hours	Instructor
Current	Previous Experience	No Specific Hours	Instructor
Emergency Responder	Part of Initial	No Specific Hours	Instructor

UA Personnel Affected

Assistant Vice President for Risk Management
Director, Occupational and Environmental Health and Safety
Environmental Safety Officer
Hazardous Waste Supervisor
Hazardous Waste Specialist

29CFR1910.120 **OSHA** (Applicable to LQG and TSDF)

<u>Worker</u>	<u>Initial</u>	<u>Annual Refresher</u>	<u>Certification</u>
New	24 Hours	8 Hours	Instructor
Current	Previous Experience	8 Hours	Instructor
Emergency Responder	As Necessary	As Necessary	Instructor

UA Personnel Affected

Assistant Vice President for Risk Management
Director, Occupational and Environmental Health and Safety
Environmental Safety Officer
Hazardous Waste Supervisor
Hazardous Waste Specialist

HAZWOPER

29CFR1910.120 **OSHA** (Site Cleanup)

<u>Worker</u>	<u>Initial</u>	<u>Annual Refresher</u>	<u>Certification</u>
General Worker	40 Hours Offsite & 3 Days Onsite (Supervised)	8 Hours	Instructor/Site Supervisor
Occasional Worker	24 Hours Offsite 1 Day Onsite (Supervised)	8 Hours	Instructor/Supervisor
Low-Hazard Worker	24 Hours Offsite	8 Hours	Instructor
Supervisor	Same As Worker & 8 Hours Specialized	8 Hours	Instructor
Emergency Responder	Not Specified, But Need Training Prior To Response Work	Annual "Rehearsal" of Emergency Response Plan	Not Necessary

UA Personnel Affected

Occasional Worker (Page Ranch)

Assistant Vice President for Risk Management
Director, Occupational and Environmental Health and Safety
Environmental Safety Officer
Hazardous Waste Supervisor
Hazardous Waste Specialist

Site History/Regulatory Status

Page-Trowbridge Ranch Landfill

40 CFR 264.16



Site Health and Safety Plan

Page-Trowbridge Ranch Landfill
40 CFR 264.16



Site Inspection

Page-Trowbridge Ranch Landfill

40 CFR 264.16



Chemistry of Hazardous Materials

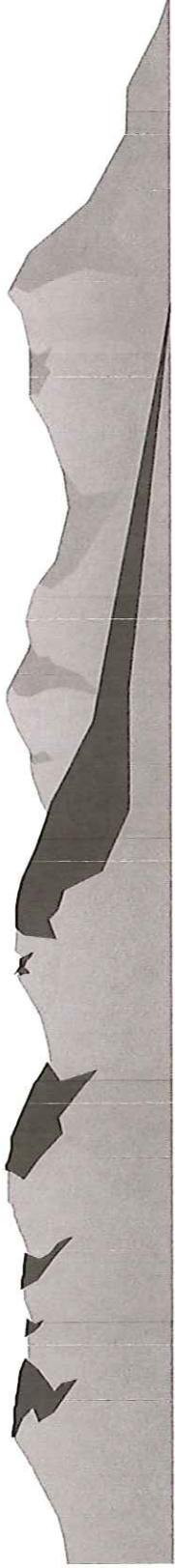
Page-Trowbridge Ranch Landfill
40 CFR 264.16



Toxicology

Page-Trowbridge Ranch Landfill

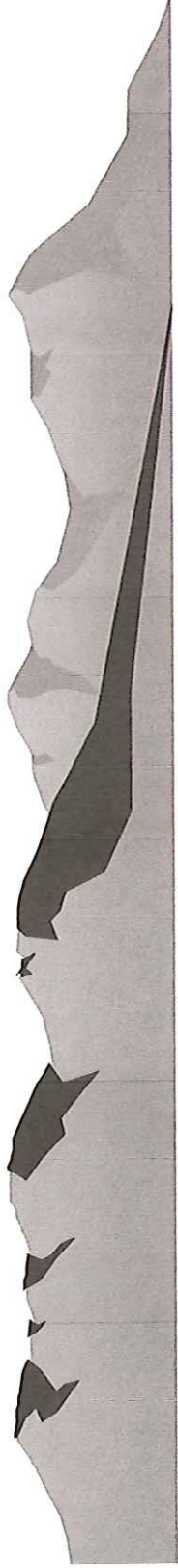
40 CFR 264.16



Exposure Guidelines

Page-Trowbridge Ranch Landfill

40 CFR 264.16



Multiple Hazards of Chemicals

Page-Trowbridge Ranch Landfill

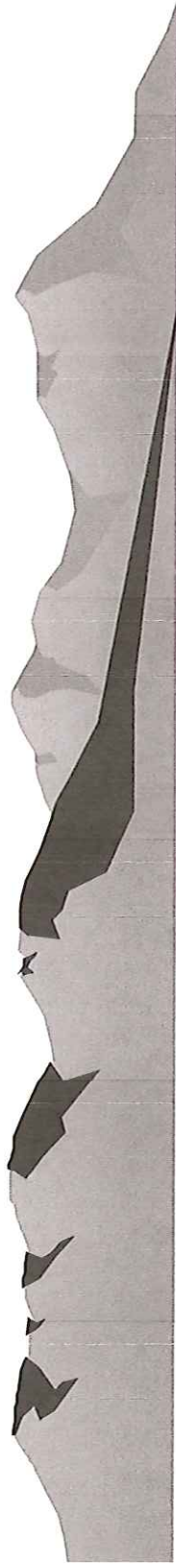
40 CFR 264.16



Hazards of Specific Materials

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40 CFR 264.16



Sampling Protocols

Page-Trowbridge Ranch Landfill

40 CFR 264.16



Groundwater Sampling

Page-Trowbridge Ranch Landfill

40 CFR 264.16



Soil Vapor Sampling

Page-Trowbridge Ranch Landfill

40 CFR 264.16



Soil Vapor Extraction System Sampling

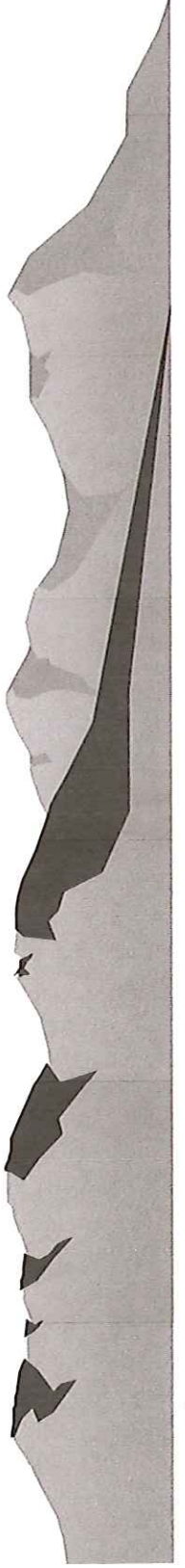
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Safety and Accident Prevention

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40 CFR 264.16



Medical Surveillance

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40 CFR 264.16



Contingency Plan

Page-Trowbridge Ranch Landfill

40 CFR 264.16



RISK MANAGEMENT SERVICES

University Services Annex 300B
220 W Sixth St., East Building 2nd Floor
PO Box 210300
Tucson, Arizona 85721-0300

Ofc: (520) 621-1790
Fax: (520) 621-3706

<http://risk.arizona.edu/>

July 9, 2021

Arizona Department of Environmental Quality
Hazardous Waste Unit, Attn: Brandon T. Green
1110 W Washington St
Phoenix, AZ 85007

Subject: Opportunity to Correct Deficiencies
Page-Trowbridge Ranch Landfill, Place ID 3166

Dear Mr. Green:

The University of Arizona has completed the final action required in the original Opportunity to Correct Deficiencies letter dated 4/16/21.

The following UA personnel completed the Page-Trowbridge Ranch Landfill training course in accordance with the documentation provided on May 12, 2021.

Jeff Christensen	Manager, Environmental Programs
Joe Divijak	Hazardous Waste Supervisor
Michael Garcia	Hazardous Waste Specialist
Jesus Figueroa	Hazardous Waste Specialist

A copy of the course sign in sheet and copies of individual certificates are attached.

Sincerely,



Jeff Christensen, CIT, CHMM, CSI
Manager, Environmental Programs

Cc: Steve Holland, UA RMS

WORKSHOP: PTRL Training

DATE: 7/9/2021

LOCATION: USA

TIME: 7:30

INSTRUCTOR: J. Christensen

LIMIT:

NAME	JOB TITLE	DEPARTMENT, DEPT'S PHONE NUMBER	SIGNATURE
1 Jean Figuera	Hazard Specialist	621-1790	
2 MICHAEL GARCIA	HAZ WASTE SPECIALIST	621-1790	
3 Joe Diviak	Haz Waste Supervisor	621-1790	
4 Jell Christensen	Manager, Environmental Div	611-1790	
5			
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16			

THE UNIVERSITY OF
ARIZONA
TUCSON ARIZONA

PRESENTS THIS CERTIFICATE TO
Jeff Christensen
IN RECOGNITION OF PARTICIPATION IN
PTRL Training

[Signature]
COORDINATOR
CSI, CAN7, CSI

Steven C. Holland
DIRECTOR

7/9/21
DATE



A RISK MANAGEMENT AND SAFETY PROGRAM

THE UNIVERSITY OF
ARIZONA
TUCSON ARIZONA

PRESENTS THIS CERTIFICATE TO
Joe Divijak
IN RECOGNITION OF PARTICIPATION IN
PTRL Training

W. S. Stewart
Coordinator
CIT, CHS, CSI

Steven C. Holland

DIRECTOR

7/9/21

DATE



A RISK MANAGEMENT AND SAFETY PROGRAM

THE UNIVERSITY OF
ARIZONA
TUCSON ARIZONA

PRESENTS THIS CERTIFICATE TO

Michael Garcia

IN RECOGNITION OF PARTICIPATION IN
PTRL Training

[Signature]
COPKONER

Steven C. Holland

DIRECTOR

7/9/21

DATE



A RISK MANAGEMENT AND SAFETY PROGRAM

THE UNIVERSITY OF
ARIZONA[®]
TUCSON ARIZONA

PRESENTS THIS CERTIFICATE TO

Jesus Figueroa

IN RECOGNITION OF PARTICIPATION IN
PTRL Training

[Signature]
COORDINATOR

Steven C. Holland

DIRECTOR

7/9/21

DATE



A RISK MANAGEMENT AND SAFETY PROGRAM

MAILING LIST

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Hon., David Cook	STATE REPRESENTATIVE/DIST. 08	AZ HOUSE OF REPRESENTATIVES	1700 W Washington, House Wing	Phoenix	AZ	85007
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STEVE HUDSON	VICE MAYOR	CITY OF COOLIDGE	822 W PIMA AVENUE	COOLIDGE	AZ	85128
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MICHAEL ORTEGA	CITY MANAGER	CITY OF TUCSON	255 W. ALAMEDA	TUCSON	AZ	85701
LANE SANTA CRUZ	COUNCIL MEMBER-WARD 1	CITY OF TUCSON	940 W ALAMEDA	TUCSON	AZ	85745
PAUL CUNNINGHAM	COUNCIL MEMBER-WARD 2	CITY OF TUCSON	7575 EAST SPEEDWAY	TUCSON	AZ	85715
KEVIN DAHL	COUNCIL-WARD 3	CITY OF TUCSON	1510 EAST GRANT	TUCSON	AZ	85719
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JEFF BROWN	COUNCIL MEMBER	TOWN OF QUEEN CREEK	22358 S ELLSWORTH ROAD	QUEEN CREEK	AZ	85142
LEAH MARTINEAU	COUNCIL MEMBER	TOWN OF QUEEN CREEK	22358 S ELLSWORTH ROAD	QUEEN CREEK	AZ	85142
EMILENA TURLEY	COUNCIL MEMBER	TOWN OF QUEEN CREEK	22358 S ELLSWORTH ROAD	QUEEN CREEK	AZ	85142
JULIA WHEATLEY	COUNCIL MEMBER	TOWN OF QUEEN CREEK	22358 S ELLSWORTH ROAD	QUEEN CREEK	AZ	85142
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MAHFOUZ "MIKE" ZABANEH	ENVIR ENGINEER / PROJECT MGR	U.S. EPA, REGION IX, RCRA FACILITIES MGT	75 HAWTHORNE STREET, MC WST-4	SAN FRANCISCO	CA	94105
AMANDA CRUZ	PROJECT MGR	U.S. EPA, REGION IX, RCRA FACILITIES MGT	75 HAWTHORNE STREET, MC WST-4	SAN FRANCISCO	CA	94105
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THE HONORABLE MARK KELLY	SENATOR	UNITED STATES SENATE	B40D DIRKSEN SENATE OFFICE BUILDING	WASHINGTON DC		20510
ARIZONA BOARD OF REGENTS			220 W 6TH STREET	TUCSON	AZ	85721
ROBSON RANCH MOUNTAINS LLC			9532 E RIGGS ROAD	SUN LAKES	AZ	85248
ARIZONA WATER COMPANY			P.O. BOX 29006	PHOENIX	AZ	85038
DANIEL & KIMBERLY GARRETT			11047 SOLARIDGE DRIVE	RESTON	VA	20191
COPPER HILL ESTATES LLC			5900 GREEN OAK DRIVE, STE 305	HOPKINS	MN	55343
DANIEL TROY & KIM MCREYNOLDS			1328 E OAK STREET	WINSLOW	AZ	86047
BF-ST LAWRENCE LLC			1850 N CENTRAL AVENUE, STE 1140	PHOENIX	AZ	85004
TITLE SECURITY AGENCY LLC			32540 S BIOSPHERE ROAD	ORACLE	AZ	85623
FALCON VALLEY RANCH			HC 3 BOX 13	TUCSON	AZ	85739
GOFF & GOFF LTD PSHIP			P.O. BOX 5591	ORACLE	AZ	85623
RICHARD & KATHLEEN LEWIS		LEWIS FAMILY TRUST OF 2007	30719 S OSPREY DRIVE	ORACLE	AZ	85623
KATHLEEN & HEINO CLEMENS			30737 S OSPREY DRIVE	ORACLE	AZ	85623

JOAN FORREST		30732 S OSPREY DRIVE	ORACLE	AZ	85623
CHARLES & DEBORAH MCGRADY		30744 S OSPREY DRIVE	ORACLE	AZ	85623
ROBERT & DIANE TAYLOR		61066 E AMUR LANE	ORACLE	AZ	85623
FRANCIS & KATHRYN HAPP		30723 S SAND HURST LANE	ORACLE	AZ	85623
KEVIN & TRISHA WYLIE		17 MOUNTAIN PEAK ROAD	BELGRADE	MT	59714
KERWIN & MARGARET JOHNSON		361 GOLF COURSE ROAD	FRIDAY HARBOR	WA	98250
ROBERT & LINDA HEALD	HEALD TRUST	30716 S SAND HURST LANE	ORACLE	AZ	85623
BRIAN & JULIE DZEKUTE		1406 SHANNON DRIVE	WOODBURY	MN	55125
STEPHEN & CAROLYN COLBY	COLBY FAMILY LIV. TRUST	37133 S OCOTILLO CANYON DRIVE	TUCSON	AZ	85739
WILLIAM & RAYDEEN GILLES 2000 TRUST		61781 E HAPPY JACK TRAIL	ORACLE	AZ	85623
LESLIE BROWN		32841 S EGRET TRAIL	ORACLE	AZ	85623
EDITH PIERSON		30786 S SAND HURST LANE	ORACLE	AZ	85623
ELEANOR GIBLING		120 BRISCOE STREET W	LONDON	ON	
ALLAN & REBECCA HILCHIE	HILCHIE FAMILY TRUST	62317 E MARBLE DRIVE	ORACLE	AZ	85623
LEASURE SHERRY L TRUST		62303 E MARBLE DRIVE	ORACLE	AZ	85623
DANIEL & PATRICIA EASLEY		1224 W RIVERSIDE AVENUE, APT. 308	SPOKANE	WA	99201
MURIAL FERLAND		62279 E MARBLE DRIVE	ORACLE	AZ	85623
DAVID & DEBORAH WORCESTER		62237 E MARBLE DRIVE	ORACLE	AZ	85623
ANNETTE ASPEOTIS		30847 S CHESTNUT WAY	ORACLE	AZ	85623
RICHARD & DEANN DEMARZO		62005 E MICA ROCK DRIVE	ORACLE	AZ	85623
RICKY & LEEANNE ECK		62021 E MICA ROCK DRIVE	ORACLE	AZ	85623
DANIEL SCHELLINGER		150 BEYERS LAKE EST	PANA	IL	62557
THOMAS SULLIVAN		30668 S CHESTNUT WAY	ORACLE	AZ	85623
JAMES & VICKI STRACHAN		30733 S JEANS WAY	ORACLE	AZ	85623
DAVID CACCI		30650 S JEANS WAY	ORACLE	AZ	85623
ANTHONY & DIANNE SIGNORELLI		30799 S BLUE GRANITE LANE	ORACLE	AZ	85623
STEFAN & SHARON THORDASON		61584 E QUARTZITE ROAD	ORACLE	AZ	85623
STEVEN JACOBS & NANCY SULLIVAN		2855 EAGLECLIFF DRIVE	ESTES PARK	CO	80517
WARREN BEAVER & JIMMIE BATES		61776 E QUARTZITE ROAD	ORACLE	AZ	85623
FRED & TINA WEBER		61898 E QUARTZITE ROAD	ORACLE	AZ	85623
LEONARD BRUNOLD		61920 E QUARTZITE ROAD	ORACLE	AZ	85623
JAMES & LINDA PARKINSON		61946 E QUARTZITE ROAD	ORACLE	AZ	85623
MICHAEL & SALLY BROWN	BROWN FAMILY REVOCABLE TRUST	61969 E QUARTZITE ROAD	ORACLE	AZ	85623
JAMES POTTER FAMILY TRUST		61909 E QUARTZITE ROAD	ORACLE	AZ	85623
TERRY & SANDY COOPER		61887 E QUARTZITE ROAD	ORACLE	AZ	85623
ARTHUR & MARY ANNE FRELUND		61865 E QUARTZITE ROAD	ORACLE	AZ	85623
RALPH & MARGO WILSON		61827 E QUARTZITE ROAD	ORACLE	AZ	85623
WILLIAM & BONNIE LOWEN		P.O. BOX 1200	TALKEETNA	AK	99676
EDWARD & KAREN MONAHAN		61787 E QUARTZITE ROAD	ORACLE	AZ	85623
JOHN & JODY BURDICK		61771 E QUARTZITE ROAD	ORACLE	AZ	85623
BERND & MICHELLE KEMBITZKY		61753 E QUARTZITE ROAD	ORACLE	AZ	85623
MICHELLE JENNINGS		61729 E QUARTZITE ROAD	ORACLE	AZ	85623
TIM & LYNN WAGNER		61707 E QUARTZITE ROAD	ORACLE	AZ	85623
STEVEN & SUSANNE SCHUSTER		61689 E QUARTZITE ROAD	ORACLE	AZ	85623
SUSAN GITELSON		61665 E QUARTZITE ROAD	ORACLE	AZ	85623
JOSEPH & PAULINE MORAN		61633 E QUARTZITE ROAD	ORACLE	AZ	85623
GARY & PATRICIA MINARD		61567 E QUARTZITE ROAD	ORACLE	AZ	85623
BONNA MABBOT	SARATOGA TRUST	30943 S BLUE GRANITE LANE	ORACLE	AZ	85623
DAVID RANVILLE & PATRICIA SPIZZIRRI		62056 E MARBLE DRIVE	ORACLE	AZ	85623
HERNAN & JAYMEE GUTIERREZ		62034 E MARBLE DRIVE	ORACLE	AZ	85623
MARK HUTFLIESS		61994 E MARBLE DRIVE	ORACLE	AZ	85623
GREGORY FRANK		61954 E MARBLE DRIVE	ORACLE	AZ	85623
BRUCE & ANNIE ANDERSON		61878 E MARBLE DRIVE	ORACLE	AZ	85623
DAVID & MARIANNE STALNAKER		61818 E MARBLE DRIVE	ORACLE	AZ	85623
RICHARD & RANDY BROSNAHAN		61780 E MARBLE DRIVE	ORACLE	AZ	85623
ROBERT & CHERIE LONJERS		61762 E MARBLE DRIVE	ORACLE	AZ	85623
WILLIAM ALBU		61724 E MARBLE DRIVE	ORACLE	AZ	85623
COWAN GAIL TRUST		61706 E MARBLE DRIVE	ORACLE	AZ	85623
CHARLES & MARCIA WILSON		P.O. BOX 1321	SAGLE	ID	83860

DALE & MARIE MALLOY	61670 E MARBLE DRIVE	ORACLE	AZ	85623
LISA LESLIE	61652 E MARBLE DRIVE	ORACLE	AZ	85623
ANDREW & ERIKA BARNES	61636 E MARBLE DRIVE	ORACLE	AZ	85623
ROBERT & GERALDINE ORTEGA	62057 E MARBLE DRIVE	ORACLE	AZ	85623
KIM YOUNG & JACQUELINE LINCOLN	4086 GREYSTONE DRIVE	HARRISBURG	PA	17112
GARY & NANCY NIX	62019 E MARBLE DRIVE	ORACLE	AZ	85623
DAVID & JILL MORETTO	62001 E MARBLE DRIVE	ORACLE	AZ	85623
HARRY & ARLENE TONGES	61985 E MARBLE DRIVE	ORACLE	AZ	85623
RONALD DAHMEN	61967 E MARBLE DRIVE	ORACLE	AZ	85623
ROBERT & SUSAN DELEHANTY	61951 E MARBLE DRIVE	ORACLE	AZ	85623
BRUCE & ALISON HANEY	61933 E MARBLE DRIVE	ORACLE	AZ	85623
ROBERT & CHERYL COBB	61915 E MARBLE DRIVE	ORACLE	AZ	85623
THOMAS BRISCH & MARGARET DARMODY-BRISCH	61899 E MARBLE DRIVE	ORACLE	AZ	85623
RUSSELL LOVELL & CYNTHIA WALKER	61877 E MARBLE DRIVE	ORACLE	AZ	85623
FRANK & SHARON MORRIS	61839 E MARBLE DRIVE	ORACLE	AZ	85623
MICHAEL & JUANITA GALLAGHER	P.O. BOX 1509	ORACLE	AZ	85623
MARK & KAREN ADAMSON	61795 E MARBLE DRIVE	ORACLE	AZ	85623
NANCY LINDSLEY	61755 E MARBLE DRIVE	ORACLE	AZ	85623
CARL & MYRIAM BARTHOLE	61737 E MARBLE DRIVE	ORACLE	AZ	85623
FRANK PFAFFENBICHLER	61719 E MARBLE DRIVE	ORACLE	AZ	85623
JOHN KRAPP	61697 E MARBLE DRIVE	ORACLE	AZ	85623
TIMOTHY & LYNNE GRAVES	61675 E MARBLE DRIVE	ORACLE	AZ	85623
MICHAEL WEBBER & DONNA FOX-WEBBER	61659 E MARBLE DRIVE	ORACLE	AZ	85623
GREGORY FRANK	61637 E MARBLE DRIVE	ORACLE	AZ	85623
ANDEE HEABERLIN	61619 E MARBLE DRIVE	ORACLE	AZ	85623
SUSAN & MARK SLOCUM	45055 RUTHERFORD STREET	TEMECULA	CA	92592
SUSAN & TIMOTHY WULFF	1149 THELIN COURT	BATAVIA	IL	60510
BUONARIGO R&S	1025 E CHALYNN AVE	ORANGE	CA	92866
BARRY FEINBERG	62064 E DEAD WOOD TRAIL	ORACLE	AZ	85623
LUCY & HANS LANGE	62026 E DEAD WOOD TRAIL	ORACLE	AZ	85623
DAN RUYLE & SHARI STOCK	61988 E DEAD WOOD TRAIL	ORACLE	AZ	85623
DON & JOYCE COX	61952 E DEAD WOOD TRAIL	ORACLE	AZ	85623
WILLIAM & ELBA MCGINN	61930 E DEAD WOOD TRAIL	ORACLE	AZ	85623
DAVITT & SUSAN ARMSTRONG	61912 E DEAD WOOD TRAIL	ORACLE	AZ	85623
DANIEL BROWN	61894 E DEAD WOOD TRAIL	ORACLE	AZ	85623
JOHN & MARIA ANTONUCCI	61876 E DEAD WOOD TRAIL	ORACLE	AZ	85623
CHARLES & DAVID WREN	61804 E DEAD WOOD TRAIL	ORACLE	AZ	85623
LINDA & ROBER BROCK	61766 E DEAD WOOD TRAIL	ORACLE	AZ	85623
SANDRA KEELIN	61726 E DEAD WOOD TRAIL	ORACLE	AZ	85623
CHARLES & SUSAN EGGLESTON	61688 E DEAD WOOD TRAIL	ORACLE	AZ	85623
DAVID & ANNA CURTIS	61648 E DEAD WOOD TRAIL	ORACLE	AZ	85623
RANDY & AUDREY GELB	61608 E DEAD WOOD TRAIL	ORACLE	AZ	85623
PAUL & KATHLEEN HUTCHENS	61568 E DEAD WOOD TRAIL	ORACLE	AZ	85623
THOMAS & NORMA TANNER	3400 N 109TH TERRACE	KANSAS CITY	KS	66109
TOMMY & FLORENCE KIRCHNER	354 ADAIR DRIVE	RICHLAND	WA	99352
JAMES & MARGARET CLARK	61446 E DEAD WOOD TRAIL	ORACLE	AZ	85623
FLOYD & CORALIE MCMILLEN	61408 E DEAD WOOD TRAIL	ORACLE	AZ	85623
DAVID & SHIRLEY HUNTER	61370 E DEAD WOOD TRAIL	ORACLE	AZ	85623
WARREN & DONNA BURTON	61330 E DEAD WOOD TRAIL	ORACLE	AZ	85623
ROBERT & SHIRLEY LEWIS	61294 E DEAD WOOD TRAIL	ORACLE	AZ	85623
JERRY & ABIGAIL FOOTE	11017 55TH AVENUE	MUKILTEO	WA	98275
JOHN & MARY GREEN	31208 S ONE HORSE LANE	ORACLE	AZ	85623
MARIA ASTAIRE	31226 ONE HORSE LANE	ORACLE	AZ	85623
THOMAS & MICHELLE SMITH	31240 ONE HORSE LANE	ORACLE	AZ	85623
DAVID & MARGARET MALPHURS	31258 S ONE HORSE LANE	ORACLE	AZ	85623
STEPHEN SUSSMAN	31272 ONE HORSE LANE	ORACLE	AZ	85623
THOMAS CAMPBELL	61799 E DEAD WOOD TRAIL	ORACLE	AZ	85623
DAVID & ELIZABETH WEIG	66603 E PEREGRINE PLACE	TUCSON	AZ	85739
THOMAS & ANNE RATTERMAN	61711 E DEAD WOOD TRAIL	ORACLE	AZ	85623

RICHARD KOOP & BARBARA MILES	61673 E DEAD WOOD TRAIL	ORACLE	AZ	85623
DAVID & MICHELLE MUSGROVE	61633 E DEAD WOOD TRAIL	ORACLE	AZ	85623
TONY & SHIRLEY SULLIVAN	61595 E DEAD WOOD TRAIL	ORACLE	AZ	85623
FRANK & CAROLINE ENGRAFF	61557 E DEAD WOOD TRAIL	ORACLE	AZ	85623
JOHAN & CARMA KARSTENS	61521 E DEAD WOOD TRAIL	ORACLE	AZ	85623
PAUL & HELGA LEEVAN	61479 E DEAD WOOD TRAIL	ORACLE	AZ	85623
ROBERT THOMPSON	61441 E DEAD WOOD TRAIL	ORACLE	AZ	85623
ANTHONY & SHERRY PIETRZYKOSKI	61403 E DEAD WOOD TRAIL	ORACLE	AZ	85623
DIANE CHRAMM	61367 E DEAD WOOD TRAIL	ORACLE	AZ	85623
ROBERT & MARILYN PIPES	61323 E DEAD WOOD TRAIL	ORACLE	AZ	85623
GERALD TIETJE	31211 ONE HORSE LANE	ORACLE	AZ	85623
STEPHEN & KAREN BELLINGER	31233 ONE HORSE LANE	ORACLE	AZ	85623
JOYCE HELLARD	31249 ONE HORSE LANE	ORACLE	AZ	85623
BRUCE MACIVER & SHERANN ELLSWORTH	31265 ONE HORSE LANE	ORACLE	AZ	85623
ROBERT & CAROL MUNK	61820 E HAPPY JACK TRAIL	ORACLE	AZ	85623
VINCENT & MARY FUNG	61806 E HAPPY JACK TRAIL	ORACLE	AZ	85623
PETER & JANET STORTON	61780 E HAPPY JACK TRAIL	ORACLE	AZ	85623
BRUCE & LINDA KELLER	61756 E HAPPY JACK TRAIL	ORACLE	AZ	85623
SUSANNE & CURTIS KOOIKER	P.O. BOX 398	RICHLAND	WA	99352
BERNARD & CECILIA VERTNIK	61706 E HAPPY JACK TRAIL	ORACLE	AZ	85623
TROY PETERSON	61686 E HAPPY JACK TRAIL	ORACLE	AZ	85623
LIESE & MICHAEL RAZZETO	61670 E HAPPY JACK TRAIL	ORACLE	AZ	85623
SHARON WESSMAN	61654 E HAPPY JACK TRAIL	ORACLE	AZ	85623
ALLEN & LINDA VOLLMER	61636 E HAPPY JACK TRAIL	ORACLE	AZ	85623
PHYLLIS & ROGER BONVOULOIR	61618 E HAPPY JACK TRAIL	ORACLE	AZ	85623
THOMAS & KAREN CARR	61600 E HAPPY JACK TRAIL	ORACLE	AZ	85623
BANNER DOUGHERTY & AMANDA BLOOD	62119 E DEAD WOOD TRAIL	ORACLE	AZ	85623
TONI & LOWELL GRAVES	62111 E DEAD WOOD TRAIL	ORACLE	AZ	85623
LINDA & KENNETH GORMAN	62093 E DEAD WOOD TRAIL	ORACLE	AZ	85623
CHARLES & LOREN WEIMER	62075 E DEAD WOOD TRAIL	ORACLE	AZ	85623
CHARLES & ELIZABETH HENDRYX	62051 E DEAD WOOD TRAIL	ORACLE	AZ	85623
JAMES HOAGLAND & GLENNA MATTHEWS	62035 E DEAD WOOD TRAIL	ORACLE	AZ	85623
KENNETH & KAREN SANDERS	2 JEFFERS LOOP ROAD	ENNIS	MT	59729
RICHARD & MARGARET ROGERS	61993 E DEAD WOOD TRAIL	ORACLE	AZ	85623
CHRISTINE WOJNAROWICZ & DAVID BATES	61971 E DEAD WOOD TRAIL	ORACLE	AZ	85623
JOSEPH & PATRICIA CIMO	61955 E DEAD WOOD TRAIL	ORACLE	AZ	85623
BRIAN & DARLYNN NERO	61935 E DEAD WOOD TRAIL	ORACLE	AZ	85623
ROGER COWLES & SUSAN LUCARELLI	61913 E DEAD WOOD TRAIL	ORACLE	AZ	85623
RICHARD & JUDY ROBBINS	61851 E HAPPY JACK TRAIL	ORACLE	AZ	85623
JAMES & MARGARET RODGERS	61843 E HAPPY JACK TRAIL	ORACLE	AZ	85623
LEE & JULIE EDMONSON	61837 E HAPPY JACK TRAIL	ORACLE	AZ	85623
MICHAEL MARCHIONE & AMY FILLMORE-MARCHIONE	61829 E HAPPY JACK TRAIL	ORACLE	AZ	85623
CAROLINE & CHRISTOPHER RAMOS	2160 BOULDER MEADOW LANE	OAK HARBOR	WA	98277
BRENT & JACKIE HATHHORN	3508 S MIZE RIDGE COURT	INDEPENDENCE	MO	64057
NANCY STIRLING	61761 E HAPPY JACK TRAIL	ORACLE	AZ	85623
RONALD & SANDRA NOBLE	61741 E HAPPY JACK TRAIL	ORACLE	AZ	85623
GREGORY HALVACS	61723 E HAPPY JACK TRAIL	ORACLE	AZ	85623
JAMES & SUSAN HYNES	61705 E HAPPY JACK TRAIL	ORACLE	AZ	85623
THE MESSNER FAMILY TRUST	61687 E HAPPY JACK TRAIL	ORACLE	AZ	85623
RICHARD HEINE	61667 E HAPPY JACK TRAIL	ORACLE	AZ	85623
BRANDT CARTER	61647 E HAPPY JACK TRAIL	ORACLE	AZ	85623
THOMAS & PAMELA ENGELHARDT	61627 E HAPPY JACK TRAIL	ORACLE	AZ	85623
WILLIAM & JEAN WELLS	61609 E HAPPY JACK TRAIL	ORACLE	AZ	85623
ROBERT FRANK	61591 E HAPPY JACK TRAIL	ORACLE	AZ	85623
GERALD & JUDY ADAMS	61559 E HAPPY JACK TRAIL	ORACLE	AZ	85623
MARK & KITTY POHLER	61537 E HAPPY JACK TRAIL	ORACLE	AZ	85623
DONALD & LINDA MAMULA	61517 E HAPPY JACK TRAIL	ORACLE	AZ	85623
PETER & ROXANNE WATSON	61497 E HAPPY JACK TRAIL	ORACLE	AZ	85623
MILAN & PAMELA STEUBE	31315 S HILDOGO DRIVE	SADDLEBROOKE	AZ	85623

NICHOLAS & KAREN VALENTINE	13374 WOODTOWN ROAD	GALENA	OH	43021
ROBERT & JUDITH KOERNER	31285 S HILDOGO DRIVE	ORACLE	AZ	85623
ERIK DAVIDSON & HEATHER BODA	5268 STATE HIGHWAY 66	LONGMONT	CO	80504
DAVID & MARYELLEN DUNCAN	31253 S HILDOGO DRIVE	ORACLE	AZ	85623
BILL & IRENE KEIL	31217 S HILDOGO DRIVE	ORACLE	AZ	85623
FRANCES WINTER	31199 S HILDOGO DRIVE	ORACLE	AZ	85623
NORBERT WEISBECK & ANNA UNG	31185 S HILDOGO DRIVE	ORACLE	AZ	85623
DAVID & BARBARA ST JULES	31171 S HILDOGO DRIVE	ORACLE	AZ	85623
HAROLD & SHERI JACKSON	61482 E SHALE ROAD	ORACLE	AZ	85623
DANIEL & JEANETTE GREEN	61416 E SHALE ROAD	ORACLE	AZ	85623
RODNEY EASTERBY & ROCHELLE DIANN	147 IRONWOOD DRIVE	BLANCHARD	ID	83804
JAMIE BELTRAN	103 GOLDEN RIDGE ROAD	ALAMO	CA	94507
ROBERT & SUSAN MORRILL	61364 E SHALE ROAD	ORACLE	AZ	85623
CLAUDE & LEE ANN MATTIX	11107 W 132ND COURT	OVERLAND PARK	KS	66213
WAYNE & DEBRA MCGIBONEY	61332 E SHALE ROAD	ORACLE	AZ	85623
THOMAS & BARBARA KALISKI	61318 E SHALE ROAD	ORACLE	AZ	85623
JAMES BRADFORD	61306 E SHALE ROAD	ORACLE	AZ	85623
JOHN & JUDY SCOTT	1371 COUNTRY CLUB DRIVE	CAMANO ISLAND	WA	98282
SUZANNE TOMS	61276 E SHALE ROAD	ORACLE	AZ	85623
JOHN & SHERIDA SOWERBY	372 PACIENTE PLACE	PAGOSA SPRINGS	CO	81147
ELIZABETH BRAUN	61240 E SHALE ROAD	ORACLE	AZ	85623
WILLIAM VEGTER	1982 HIDDEN PINES TRAIL	STEVENSVILLE	MI	49127
TROY & TINA FUGLEBERG	61216 E SHALE ROAD	ORACLE	AZ	85623
CATHERINE STEEL	61202 E SHALE ROAD	ORACLE	AZ	85623
ANDREW & SHELIAH DREWENKOWSKI	61188 E SHALE ROAD	ORACLE	AZ	85623
LINDA LASATER	61176 E SHALE ROAD	ORACLE	AZ	85623
KARLA RIORDAN	61162 E SHALE ROAD	ORACLE	AZ	85623
FABIAN ROBLES	61148 E SHALE ROAD	ORACLE	AZ	85623
STANLEY BODEEN	61104 E SHALE ROAD	ORACLE	AZ	85623
HAROLD & SHERRYL TEEL	61094 E SLATE ROAD	ORACLE	AZ	85623
ROBERT & KIMBERLEE FORTIN	2917 181ST PLACE NW	STANWOOD	WA	98292
ROGER & CHRISTINE YOUNG	61070 E SLATE ROAD	ORACLE	AZ	85623
SARA NIEDERLEHNER	61058 E SLATE ROAD	ORACLE	AZ	85623
THOMAS & IRENE PERRY	61044 E SLATE ROAD	ORACLE	AZ	85623
STEVEN APFELBAUM	30843 S CANYON VISTA WAY	ORACLE	AZ	85623
ROBERT SOUCEK	5552 S DELAWARE COURT	TULSA	OK	74105
CAROL ENNIS	30815 S CANYON VISTA WAY	ORACLE	AZ	85623
GERRI JURGENSMEYER	30803 S CANYON VISTA WAY	ORACLE	AZ	85623
RONALD & REBECCA VITULLO	30789 S CANYON VISTA WAY	ORACLE	AZ	85623
CHERYL JANUZZI	1438 CEDAR STREET	LAKE OSWEGO	OR	97034
DAVID & ANN PALENSHUS	30822 S CANYON VISTA WAY	ORACLE	AZ	85623
JAMES LILLEY	30840 S CANYON VISTA WAY	ORACLE	AZ	85623
JERRY & KATHLEEN MEYER	30866 S CANYON VISTA WAY	ORACLE	AZ	85623
RANDY & LISA FRIEDMAN	30882 S CANYON VISTA WAY	ORACLE	AZ	85623
SHEREE GILLASPIE	16410 SUNTREE LANE	SISTERS	OR	97759
DAVID & KAREN JORDAN	30926 S CANYON VISTA WAY	ORACLE	AZ	85623
STEPHEN MARADA	30944 S CANYON VISTA WAY	ORACLE	AZ	85623
SUSAN & DAVID MARX	30962 S CANYON VISTA WAY	ORACLE	AZ	85623
RICHARD & DALEEN FITZGERALD	30980 S CANYON VISTA WAY	ORACLE	AZ	85623
LMB PROPERTY INVESTMENTS LLC	59919 E ANKOLE DRIVE	ORACLE	AZ	85623
THOMAS & ALICE HOGARTY	P.O. BOX 155	BIG HORN	WY	82833
NORMAN & DEBORAH KERTH	31032 S CANYON VISTA WAY	ORACLE	AZ	85623
NANCY & WILLIAM ROGERS	31048 S CANYON VISTA WAY	ORACLE	AZ	85623
DEANA COLLINS	61553 E MARBLE DRIVE	ORACLE	AZ	85623
CRAIG & MARGARET LEYBURN	61531 E MARBLE DRIVE	ORACLE	AZ	85623
DAVID & SINDEE KRAUSE	61513 E MARBLE DRIVE	ORACLE	AZ	85623
CRAIG & DAWN LUKOS	61495 E MARBLE DRIVE	ORACLE	AZ	85623
EILEEN GLASBY	61473 E MARBLE DRIVE	ORACLE	AZ	85623
JAMES & SUSAN DAKIN	P.O. BOX 114	GRASS LAKE	MI	49240

TIMOTHY CANNY & SHERRY BEHRENS	61397 E FLINT DRIVE	ORACLE	AZ	85623
TIMOTHY ONEILL & AUDREY KING	14295 W BARLOW COURT	BEAVERTON	OR	97008
MICHAEL & JANICE CLOSE	61377 E FLINT DRIVE	ORACLE	AZ	85623
KHASHAIAR CHAREPOO	430 CRYSTAL BEACH DRIVE	WINDSOR	CO	80550
JOHN & ROBIN DYCK	1502 MATHISON DRIVE	SANDPOINT	ID	83864
CAROL & RODNEY LINVILLE	61327 E FLINT DRIVE	ORACLE	AZ	85623
NANCY TAGGE	61311 E FLINT DRIVE	ORACLE	AZ	85623
CLAIRE LAWSON	61277 E FLINT DRIVE	ORACLE	AZ	85623
JAN WESTEMEIER	3127 NOR DEL HILL ROAD	VERONA	WI	53593
ZOELLNER LIV TRUST	61217 E FLINT DRIVE	ORACLE	AZ	85623
MARK & KATHLEEN BECKER	61203 E FLINT DRIVE	ORACLE	AZ	85623
KEEGAN & LINDA KRATOVIL	61189 E FLINT DRIVE	ORACLE	AZ	85623
RICHARD & SANDRA GETTER	61175 E FLINT DRIVE	ORACLE	AZ	85623
CHARLES FAIRBANKS	61161 E FLINT DRIVE	ORACLE	AZ	85623
TIMOTHY MIHORA	61147 E FLINT DRIVE	ORACLE	AZ	85623
RICHARD & CHRISTINE GONDOSCH	23158-500 FAIRWAY ROAD S	KITCHENER	ON	
BABAK CHAREPOO	P.O. BOX 5739	SCOTTSDALE	AZ	85261
LON & MARTHA FROHLING	61111 E FLINT DRIVE	ORACLE	AZ	85623
KENNETH & KATHY PETERSON	61097 E FLINT DRIVE	ORACLE	AZ	85623
SHELLEY GRUDIN	2468 NW CHAMPION CIRCLE	BEND	OR	97703
FRED & SYLVIA STAUDHAMMER	22504 REYNOLDS DRIVE	TORRANCE	CA	90505
GREG LOWE & JODI WALKER-LOWE	30834 S BLUE GRANITE LANE	ORACLE	AZ	85623
SANDRA SHERMAN & AUDREY KING	30994 S BLUE GRANITE LANE	ORACLE	AZ	85623
DIANA WALTON	30881 S OBSIDIAN DRIVE	ORACLE	AZ	85623
JOHN WYATT	30897 S OBSIDIAN DRIVE	ORACLE	AZ	85623
ROY & DEBRA SALISBURY	30913 S OBSIDIAN DRIVE	ORACLE	AZ	85623
JEFFREY & LISA COOPER	30935 S OBSIDIAN DRIVE	ORACLE	AZ	85623
CYNTHIA CARLSON	30949 S OBSIDIAN DRIVE	ORACLE	AZ	85623
LOUISE OSTROWSKI	30967 S OBSIDIAN DRIVE	ORACLE	AZ	85623
JOHN & MOLLIE HUNTER	30985 S OBSIDIAN DRIVE	ORACLE	AZ	85623
LANNEY ATCHLEY	31003 S OBSIDIAN DRIVE	ORACLE	AZ	85623
TIA & DAVID WILLSON	30880 S OBSIDIAN DRIVE	ORACLE	AZ	85623
MATTHEW & ARLENE FLEMING	4141 CRANFORD CIRCLE	SAN JOSE	CA	95124
WILLIAM & VICTORIA SCHLAUPITZ	30988 S OBSIDIAN DRIVE	ORACLE	AZ	85623
SHARON RINGSVEN	730 COORS STREET	LAKEWOOD	CO	80401
THOMAS & BARBARA WALLIS	30923 S BASALT DRIVE	ORACLE	AZ	85623
JEAN MCCOLMAN	30939 S BASALT DRIVE	ORACLE	AZ	85623
GREGORY & ELIZABETH WALKER	30953 S BASALT DRIVE	ORACLE	AZ	85623
LAURENE MARSHALL	30965 S BASALT DRIVE	ORACLE	AZ	85623
RANDALL & MICHELE STARK	30975 S BASALT DRIVE	ORACLE	AZ	85623
LARRY & SHELLIE BEAN	4916 KEOS WAY	OCEANSIDE	CA	92056
KAREN REED	31001 S BASALT DRIVE	ORACLE	AZ	85623
BRUCE & KAREN MUNDAHL	31013 S BASALT DRIVE	ORACLE	AZ	85623
CASSANDRA OLSON	31025 S BASALT DRIVE	ORACLE	AZ	85623
JAMES & CYNTHIA KILLACKEY	31039 S BASALT DRIVE	ORACLE	AZ	85623
GREGORY & ALICE KAUFFMAN	11470 N FASCINATION WAY	CROMWELL	IN	46732
PEGGY SPOTT	2699 NW HAVRE COURT	BEND	OR	97703
ROY WAIT & SUSAN HILCHEY	30990 S BASALT DRIVE	ORACLE	AZ	85623
MARK MOLINARO	30996 S BASALT DRIVE	ORACLE	AZ	85623
DOUGLAS WEST	1364 WATERS EDGE COURT	TERRE HAUTE	IN	47803
DONNA HOSHIDE	61370 E FLINT DRIVE	ORACLE	AZ	85623
STEPHEN & ILENE SKINNER	61352 E FLINT DRIVE	ORACLE	AZ	85623
DANN & KIM DENNY	61336 E FLINT DRIVE	ORACLE	AZ	85623
JOLENE ORMONDE	61320 E FLINT DRIVE	ORACLE	AZ	85623
JAMES & JANEL CLARK	12341 235TH PLACE NE	REDMOND	WA	98053
CHARLES & TRACY KNOEDLER	3414 183RD DRIVE NE	SNOHOMISH	WA	98290
CLAIRE DILLON	61272 E FLINT DRIVE	ORACLE	AZ	85623
GERALDINE DAWES	61260 E FLINT DRIVE	ORACLE	AZ	85623
SUE SCOTT	61248 E FLINT DRIVE	ORACLE	AZ	85623

KAREN KASSIN	61234 E FLINT DRIVE	ORACLE	AZ	85623
STEPHEN & NANCY FELBER	61222 E FLINT DRIVE	ORACLE	AZ	85623
JERRY WOMMACK & ROBIN HASEN	1572 CARRIAGE DRIVE	EATON	CO	80615
CAROL ROSE	61196 E FLINT DRIVE	ORACLE	AZ	85623
DONALD & NANCY RUSH	P.O. BOX 415	SCOBAY	MT	59263
SHARRON KOZMA	61150 E FLINT DRIVE	ORACLE	AZ	85623
RANDOLPH & CAROLYN CARR	5222 MAHNCKE ROAD SW	LONGBRANCH	WA	98351
ANTHONY PETERSEN	61128 E FLINT DRIVE	ORACLE	AZ	85623
JOHN & ELIZABETH MORRIS	61118 E FLINT DRIVE	ORACLE	AZ	85623
JAMES & SUZATTE AGUIRRE	61106 E FLINT DRIVE	ORACLE	AZ	85623
RUTH FJELLMAN	61092 E FLINT DRIVE	ORACLE	AZ	85623
BILL SHIPP & LINDA TEEL	340 W SAGUARO ARM TRAIL	ORO VALLEY	AZ	85623
RAYMOND & MADELYN LEAVITT	61068 E FLINT DRIVE	ORACLE	AZ	85623
DANIEL & CARLA MURPHY	20547 NE 37TH WAY	SAMMAMISH	WA	98074
CHRISTOPHER & NANCY RACIOPPO	61046 E FLINT DRIVE	ORACLE	AZ	85623
BERNARDUS & ADRIANA WENSINK	13500 N RANCHO VISTOSO BLVD APT. 157	ORO VALLEY	AZ	85755
DENNIS & LEIGH BRIELS	61347 E SHALE ROAD	ORACLE	AZ	85623
M MARKS	600 NW LOCUST STREET APT. C-237	ISSAQUAH	WA	98027
CARMEN GARROD	61315 E SHALE ROAD	ORACLE	AZ	85623
FRANCIS & NANCY BORCALLI	61299 E SHALE ROAD	ORACLE	AZ	85623
STEPHEN & CAMILLA MORK	61283 E SHALE ROAD	ORACLE	AZ	85623
JAMES & CHARLOTTE CARPENTER	61267 E SHALE ROAD	ORACLE	AZ	85623
ILENE SCOTT	61259 E SHALE ROAD	ORACLE	AZ	85623
DUANE & LINDA JENSEN	13478 YORK CREEK GROVE	COLORADO SPRINGS	CO	80921
JAMES & MARTI KUHR	61235 E SHALE ROAD	ORACLE	AZ	85623
DOROTHY & LAUREN MOORE	62556 E BORDER ROCK ROAD	SADDLEBROOKE	AZ	85739
JAMES & ROBERTA HARIPER	61209 E SHALE ROAD	ORACLE	AZ	85623
BONNIE WEBER	61193 E SHALE ROAD	ORACLE	AZ	85623
LUPE LOREDO & ALEJANDRO YBANEZ	61181 E SHALE ROAD	ORACLE	AZ	85623
PATRICIA SCULLY	61165 E SHALE ROAD	ORACLE	AZ	85623
CARMEN GEMME	61155 E SHALE ROAD	ORACLE	AZ	85623
ROBERT & NANCY WILLCOXON	514 AMERICAS WAY APT. 6234	BOX ELDER	SD	57719
TED & NINI FALCONER	61113 E SHALE ROAD	ORACLE	AZ	85623
THOMAS & KELLY REUTER	31629 S SUMMERWIND DRIVE	ORACLE	AZ	85623
TIMOTHY LAWLER	61087 E SHALE ROAD	ORACLE	AZ	85623
PAMELA CREIGHTON	61073 E SHALE ROAD	ORACLE	AZ	85623
LAWRENCE & EDNA BREVING	61061 E SHALE ROAD	ORACLE	AZ	85623
DAVID GOBLE	61047 E SHALE ROAD	ORACLE	AZ	85623
DUANE & PAULA ROGGOW	61035 E SHALE ROAD	ORACLE	AZ	85623
TERRANCE & DORIS CARLIN	61021 E SHALE ROAD	ORACLE	AZ	85623
ROBERT & SHIRLEY SHELBY	60995 E SHALE ROAD	ORACLE	AZ	85623
BRUCE & NANCY CARLSON	60983 E SHALE ROAD	ORACLE	AZ	85623
MARY & WALTER YOUNG	61124 E SHALE ROAD	ORACLE	AZ	85623
MARY LOU TINNIN	61110 E SHALE ROAD	ORACLE	AZ	85623
JANIS O CONNOR	61102 E SHALE ROAD	ORACLE	AZ	85623
MICHAEL & JOAN MATUZEK	61090 E SHALE ROAD	ORACLE	AZ	85623
DENNIS BROOKS	601 E WATER STREET	FARMER CITY	IL	61842
LARRY LARSON	1815 N 9TH STREET	BISMARCK	ND	58501
MITCHELL FRANKLIN	61052 E SHALE ROAD	ORACLE	AZ	85623
CALE & JEANNETTE CARSON	2393 VIA MARIPOSA W UNIT 3H	LAGUNA WOODS	CA	92637
LINDA ECKHARDT	61028 E SHALE ROAD	ORACLE	AZ	85623
JOHN & ANN GIOVENCO	61016 E SHALE ROAD	ORACLE	AZ	85623
SUSAN OELRICH	61002 E SHALE ROAD	ORACLE	AZ	85623
JAMES & KAREN HANDSCHY	60990 E SHALE ROAD	ORACLE	AZ	85623
BRUCE & LYDIA STRICKLAND	61113 E SLATE ROAD	ORACLE	AZ	85623
JEFFREY & MARY ANNE VONK	P.O. BOX 164	PIERRE	SD	57501
YUCEL & JERALD TAVOLARA	1158 SAINT ANDREWS COURT	ALGONQUIN	IL	60102
BRIDGET & WILLIAM ROBSON	15871 AGATE CREEK DRIVE	MONUMENT	CO	80132
MARILYN JANKOWSKI	59963 E HORNBILL PLACE	ORACLE	AZ	85623

JOHN & MELODY EDMONDSON	61035 E SLATE ROAD	ORACLE	AZ	85623
MELANIE LANGHOLZ	61021 E SLATE ROAD	ORACLE	AZ	85623
NEAL DRELL	61011 E SLATE ROAD	ORACLE	AZ	85623
KARYN WADSWORTH	60997 E SLATE ROAD	ORACLE	AZ	85623
DONALD BROTCHE & KATHRYN RICHARD	60983 E SLATE ROAD	ORACLE	AZ	85623
CAROLYN LAETHEM & CARMEN QUINTERO	60971 E SLATE ROAD	ORACLE	AZ	85623
JOSEPH & SHERRY BRINSTER	60959 E SLATE ROAD	ORACLE	AZ	85623
HARVEY & BONNIE GOLDMAN	61387 E ARBOR BASIN ROAD	ORACLE	AZ	85623
MICHEL & PEGGY TOMASO	61369 E ARBOR BASIN ROAD	ORACLE	AZ	85623
JOHN & GAYLE O CONNELL	61349 E ARBOR BASIN ROAD	ORACLE	AZ	85623
PATRICIA & PATRICK KELLY	61331 E ARBOR BASIN ROAD	ORACLE	AZ	85623
RONNIE & SUSAN MONSON	61313 E ARBOR BASIN ROAD	ORACLE	AZ	85623
GABOR & BEATA MOROCZ	61295 E ARBOR BASIN ROAD	ORACLE	AZ	85623
WILLIAM & BARBARA SANDERS	61255 E ARBOR BASIN ROAD	ORACLE	AZ	85623
GERARD & BRENDA MILLS	61235 E ARBOR BASIN ROAD	ORACLE	AZ	85623
EDWARD & JOYCE ARTMAN	61217 E ARBOR BASIN ROAD	ORACLE	AZ	85623
TERRANCE & ANITA ZIMMERMAN	61199 E ARBOR BASIN ROAD	ORACLE	AZ	85623
SHERRIE HAWK	225 LAWRENCE BLVD W UNIT 303	WABASHA	MN	55981
DONNA HILL	61159 E ARBOR BASIN ROAD	ORACLE	AZ	85623
ROGER & WANDA BAILEY	61141 E ARBOR BASIN ROAD	ORACLE	AZ	85623
GORDON TAGGE	61123 E ARBOR BASIN ROAD	ORACLE	AZ	85623
SOLOMON & CAROL GINSBERG	60088 E PEPPERTREE LANE	ORACLE	AZ	85623
TIMOTHY & DIANE BRATZ	61376 E ARBOR BASIN ROAD	ORACLE	AZ	85623
DANIEL & JOANNE FOSTER	61358 E ARBOR BASIN ROAD	ORACLE	AZ	85623
MARLENE DISKIN & PETER BRATZ	61336 E ARBOR BASIN ROAD	ORACLE	AZ	85623
MARK SHIREY	61316 E ARBOR BASIN ROAD	ORACLE	AZ	85623
THOMAS & MARILYN GRAHAM	61294 E ARBOR BASIN ROAD	ORACLE	AZ	85623
STEPHEN & CHARLOTTE RECORDS	61254 E ARBOR BASIN ROAD	ORACLE	AZ	85623
JOHN & JEANNE SADLIK	61236 E ARBOR BASIN ROAD	ORACLE	AZ	85623
DONALD & JACQUELYN HENDRICKS	31299 S GRANITE DRIVE	ORACLE	AZ	85623
KAREN CAIN	31281 S GRANITE DRIVE	ORACLE	AZ	85623
LAWRENCE & KIM SCHWEITZER	61162 E ARBOR BASIN ROAD	ORACLE	AZ	85623
JAMES & CORINNE MANSMITH	61138 E ARBOR BASIN ROAD	ORACLE	AZ	85623
HENRY MOZOLEWSKI & MARIANNA ROSZKOWSKA	31269 S CANYON VISTA WAY	ORACLE	AZ	85623
DAVID & FRANCES JENKINS	795 VICTORIA FALLS DRIVE	REDMOND	OR	97756
NANCY WALTERS & BARBARA ARMSTRONG	1270 RIM OF THE REDWOODS ROAD	SEBASTOPOL	CA	95472
ALAN & SUSAN NESS	61369 E HAPPY JACK TRAIL	ORACLE	AZ	85623
DIANNE BRADLEY & JEFFREY HARBERT	61347 E HAPPY JACK TRAIL	ORACLE	AZ	85623
ROBERT & ANN VESSELLA	5612 128TH STREET SW	MUKILTEO	WA	98275
THEODORE & GAIL BARTH	61309 E HAPPY JACK TRAIL	ORACLE	AZ	85623
WILLIAM & LEONTINE HINES	61291 E HAPPY JACK TRAIL	ORACLE	AZ	85623
DAVID & SYLVIA HARMON	61249 E HAPPY JACK TRAIL	ORACLE	AZ	85623
RONALD COONS	61229 E HAPPY JACK TRAIL	ORACLE	AZ	85623
RONALD & MONICA GUSTAFSON	31261 S GRANITE DRIVE	ORACLE	AZ	85623
WAYNE & CYNTHIA WATKINS	31178 S HIDOGO DRIVE	ORACLE	AZ	85623
RONALD & NANCY HILBERT	61420 E HAPPY JACK TRIAL	ORACLE	AZ	85623
JAY & GALE HALL	61402 E HAPPY JACK TRAIL	ORACLE	AZ	85623
QUAITE & JUDY DODSON	61388 E HAPPY JACK TRAIL	ORACLE	AZ	85623
DONALD & DEBORAH LARSON	61370 E HAPPY JACK TRAIL	ORACLE	AZ	85623
WILLIAM STONE	1141 AMBROSE DRIVE	MANTECA	CA	95336
MICHAEL & ANTONIA MCDOLE	61338 E HAPPY JACK TRAIL	ORACLE	AZ	85623
CHERYL BUCK	61322 E HAPPY JACK TRAIL	ORACLE	AZ	85623
KEVIN & RAENETTE CARLE	61306 E HAPPY JACK TRAIL	ORACLE	AZ	85623
NICHOLAS & LINDA NEWTON	61288 E HAPPY JACK TRAIL	ORACLE	AZ	85623
MARK & PATTI LEWIS	61250 E HAPPY JACK TRAIL	ORACLE	AZ	85623
KENNETH & CHERIE ZIEMS	61234 E HAPPY JACK TRAIL	ORACLE	AZ	85623
MARIA & ROBERT BROWN	61216 E HAPPY JACK TRAIL	ORACLE	AZ	85623
RONALD & BEVERLY MCGLOTHIN	61202 E HAPPY JACK TRAIL	ORACLE	AZ	85623
KENNETH POMPA	61184 E HAPPY JACK TRAIL	ORACLE	AZ	85623

KARL & ALICIA JUNGELAUS	31258 S GRANITE DRIVE	ORACLE	AZ	85623
DAVID & CHARLENE GOODKNIGHT	8523 E KAEL STREET	MESA	AZ	85207
JIM & KELLY MOSS	P.O. BOX 2536	GLOBE	AZ	85502
KENNETH & CYNTHIA FILIPPINI	60740 E PERSIAN DRIVE	ORACLE	AZ	85623
SADDLEBROOKE RANCH HOMEOWNERS ASSOCIATION	9352 E RIGGS ROAD	SUN LAKES	AZ	85248
KENNETH & SHIRLEY MURRAY	61072 E ARBOR BASIN ROAD	ORACLE	AZ	85623
STEVEN & PAULA CARTWRIGHT	61056 E ARBOR BASIN ROAD	ORACLE	AZ	85623
RICHARD & HEIDE PATTERSON	61038 E ARBOR BASIN ROAD	ORACLE	AZ	85623
JAMES & MARY HEYWOOD	61022 E ARBOR BASIN ROAD	ORACLE	AZ	85623
MICHAEL & DIANE MCFAIN	61004 E ARBOR BASIN ROAD	ORACLE	AZ	85623
STANLEY & JULIE GENTZLER	60988 E ARBOR BASIN ROAD	ORACLE	AZ	85623
RANDALL & CHARLOTTE GRAHAM	60972 E ARBOR BASIN ROAD	ORACLE	AZ	85623
CARL & SUSAN PRATT	60954 E ARBOR BASIN ROAD	ORACLE	AZ	85623
PETER & ATISSA CAMPBELL	60942 E ARBOR BASIN ROAD	ORACLE	AZ	85623
JAMES & DEBBY FLETCHER	60922 E ARBOR BASIN ROAD	ORACLE	AZ	85623
RALPH & PAMELA RICHARDS	60904 E ARBOR BASIN ROAD	ORACLE	AZ	85623
JAMES & JACKIE FOLEY	60890 E ARBOR BASIN ROAD	ORACLE	AZ	85623
KIM PEDERSON	60872 E ARBOR BASIN ROAD	ORACLE	AZ	85623
MICHAEL & CONNIE HANEY	61053 E ARBOR BASIN ROAD	ORACLE	AZ	85623
DONALD MARSJANIK	61035 E ARBOR BASIN ROAD	ORACLE	AZ	85623
FRANK & RUTH MOORE	61017 E ARBOR BASIN ROAD	ORACLE	AZ	85623
DOUGLAS & MARY BALZER	61003 E ARBOR BASIN ROAD	ORACLE	AZ	85623
MATHEW & PATRICIA RIPPY	60961 E ARBOR BASIN ROAD	ORACLE	AZ	85623
MARK & LISA PROSE	60955 E ARBOR BASIN ROAD	ORACLE	AZ	85623
RICHARD & PAULA ROGERS	60951 E ARBOR BASIN ROAD	ORACLE	AZ	85623
MICHAEL & LORETTA GRESHAM	60945 E ARBOR BASIN ROAD	ORACLE	AZ	85623
DOUGLAS & MELANIE SEDAM	61082 E ANGORA PLACE	ORACLE	AZ	85623
KENNETH & BARBARA DE LEO	61068 E ANGORA PLACE	ORACLE	AZ	85623
TERRY & DIANA WALTON	61048 E ANGORA PLACE	ORACLE	AZ	85623
CHARLES & MARY ANDERSON	61028 E ANGORA PLACE	ORACLE	AZ	85623
MICHAEL & JEAN BOSKY	60998 E ANGORA PLACE	ORACLE	AZ	85623
JANETTE & STEVE BATTEN	60972 E ANGORA PLACE	ORACLE	AZ	85623
JOHN & LORRAINE SMITH	60944 E ANGORA PLACE	ORACLE	AZ	85623
LONNIE & JULIE PEDERSON	60914 E ANGORA PLACE	ORACLE	AZ	85623
RONALD & LYNNE WYSOCKY	60892 E ANGORA PLACE	ORACLE	AZ	85623
WILLIAM & ANTOINETTE ESTRADA	31518 S MISTY BASIN ROAD	ORACLE	AZ	85623
LARRY & MARNIE BINNEY	31544 S MISTY BASIN ROAD	ORACLE	AZ	85623
JAMES & THYRA HARTMAN	31588 S MISTY BASIN ROAD	ORACLE	AZ	85623
LANCE & CHERYL FARRIER	61059 E ANGORA PLACE	ORACLE	AZ	85623
JAMES & MARLENE HARDISON	61045 E ANGORA PLACE	ORACLE	AZ	85623
DALE & DEBBIE SORENSEN	61027 E ANGORA PLACE	ORACLE	AZ	85623
JOSEPH & ANN MARIE CAMILLUCCI	60993 E ANGORA PLACE	ORACLE	AZ	85623
BETH MEYERS & KATHLEEN VANDERPOOL	60973 E ANGORA PLACE	ORACLE	AZ	85623
JOEL & SHARON PASSOV	60955 E ANGORA PLACE	ORACLE	AZ	85623
THOMAS & JANICE HYNES	60933 E ANGORA PLACE	ORACLE	AZ	85623
CLIFFORD TERRY	31547 S MISTY BASIN ROAD	ORACLE	AZ	85623
JOHN BEALS	31563 S MISTY BASIN ROAD	ORACLE	AZ	85623
RAYMOND & NORMA WEISZ	31579 S MISTY BASIN ROAD	ORACLE	AZ	85623
GARY & KATHLEEN KUHN	31593 S MISTY BASIN ROAD	ORACLE	AZ	85623
MICHAEL & TERRI MOVIUS	61084 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
WALTER & DARIAN PASTERSKI	61060 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
BILLY & MARGARET SHULTZ	61020 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
JAMES & MAUREEN BOTZ	61000 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
NANCY & JOHN SHAUGHNESSY	60982 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
PATRICIA HALE	60960 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
PHILIP & MONIKA BARTKO	60940 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
TIMOTHY & ELIZABETH CHAMBERLIN	60922 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
DONALD & JANET CRAWFORD	233 3RD AVENUE N APT. 4	EDMONDS	WA	98020
WILLIAM & GINGER BUETOW	61063 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623

JOHN & JUDITH TEDESCHI	61039 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
FREDERICK & FELICITAS AYLSTOCK	61021 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
THE REDDINGTON TRUST	60997 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
GARY & ETHEL LUCE	60971 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
WILLIAM & MINDY HAWK	60947 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
B & J SCOTT	8600 NW LAKESHORE AVENUE	VANCOUVER	WA	98665
RONNIE & CYNTHIA NUNN	60907 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
ELIZABETH & JUDITH KEEFER	60885 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
DAVID & TERI ARNOLD	31723 S FLAT ROCK DRIVE	ORACLE	AZ	85623
DANA & SHARI REDDINGTON	61082 E AMUR LANE	ORACLE	AZ	85623
KENNETH & CATHERINE LOBO	61050 E AMUR LANE	ORACLE	AZ	85623
ANDREW & MARINA WADDELL	61034 E AMUR LANE	ORACLE	AZ	85623
HAROLD & HUGO KIRMAN	61020 E AMUR LANE	ORACLE	AZ	85623
KURT & VICKI WARNING	31747 S FLAT ROCK DRIVE	ORACLE	AZ	85623
MICHAEL & CHERYL STROBEN	31763 S FLAT ROCK DRIVE	ORACLE	AZ	85623
ROBERT & JODY PORTER	61081 E AMUR LANE	ORACLE	AZ	85623
ROBERT & PAMELA HORWITT	61057 E AMUR LANE	ORACLE	AZ	85623
ROBERT & SUE DILTS	61029 E AMUR LANE	ORACLE	AZ	85623
DIANE VERKUYLEN-MURPHY & JOHN MURPHY	3047 OLD CREEK ROAD	MIDDLETON	WI	53562
WILLIAM & SANDRA GURECK	31817 S FLAT ROCK DRIVE	ORACLE	AZ	85623
DEL & INGRID ANDREWS	31799 S FLAT ROCK DRIVE	ORACLE	AZ	85623
LINDA WAICIS	60961 E AMUR LANE	ORACLE	AZ	85623
BARRY & MARY MILNER	60947 E AMUR LANE	ORACLE	AZ	85623
KEITH & SUSAN DRENGLER	60935 E AMUR LANE	ORACLE	AZ	85623
CONSTANCE CALDERON	31874 S FLAT ROCK DRIVE	ORACLE	AZ	85623
DAVID & JILL STARK	31904 S FLAT ROCK DRIVE	ORACLE	AZ	85623
DANIEL & MAUREEN MURPHY	31924 S FLAT ROCK DRIVE	ORACLE	AZ	85623
DAVID & JEANNE HUNTER	31948 S FLAT ROCK DRIVE	ORACLE	AZ	85623
MATTHEW & NOELLE RUSSOW	60974 E SAGE DRIVE	ORACLE	AZ	85623
MICHAEL & DONNA VINKS	401 E 8TH STREET APT. 214-917	SIoux FALLS	SD	57103
KYLE & SUZANNE DUDLEY	31963 S LONE VISTA WAY	ORACLE	AZ	85623
GREGORY & CONSTANCE ELLIOT	31933 S LONE VISTA WAY	ORACLE	AZ	85623
RICHARD & ELLEN MILLET	31913 S LONE VISTA WAY	ORACLE	AZ	85623
RICHARD & SANDRA LANDIS	31891 S LONE VISTA WAY	ORACLE	AZ	85623
JAMES & JACKIE FOLEY	31865 S FLAT ROCK DRIVE	ORACLE	AZ	85623
THEODORE ROUPAS	31883 S FLAT ROCK DRIVE	ORACLE	AZ	85623
JAMES & MARILYN SULLIVAN	31901 S FLAT ROCK DRIVE	ORACLE	AZ	85623
MICHAEL SZYMANSKI	31919 S FLAT ROCK DRIVE	ORACLE	AZ	85623
JOHN & WENDY PRUIETT	16137 NW CANTERWOOD WAY	PORTLAND	OR	97229
MERL & DEBORAH FELZIEN	31957 S FLAT ROCK DRIVE	ORACLE	AZ	85623
ELMER & KAREN KLAUVETTER	31977 S FLAT ROCK DRIVE	ORACLE	AZ	85623
MICHAEL & MARLA DARCH	31995 S FLAT ROCK DRIVE	ORACLE	AZ	85623
KEVIN & GLORIA SCHICK	32027 S FLAT ROCK DRIVE	ORACLE	AZ	85623
JAMES & KENDRA POSER	32039 S FLAT ROCK DRIVE	ORACLE	AZ	85623
CRAIG & SUSAN BAUER	32053 S FLAT ROCK DRIVE	ORACLE	AZ	85623
DAVID & FRANKE NORMANDIE	32065 S FLAT ROCK DRIVE	ORACLE	AZ	85623
LAWRENCE & SUSAN STULTS	414 239TH AVENUE NE	SNOHOMISH	WA	98290
PATRICK MULCAHY & KARLA GOMEZ-MEYER	32078 S FLAT ROCK DRIVE	ORACLE	AZ	85623
CHARLES & SUSAN KNIGHT	32064 S FLAT ROCK DRIVE	ORACLE	AZ	85623
EDWARD & JEAN CHESZEK	32036 S FLAT ROCK DRIVE	ORACLE	AZ	85623
EDWARD & GRACE EHRMAN	61017 E SAGE DRIVE	ORACLE	AZ	85623
DAVID & JEANNE HANSEL	31972 S LONE VISTA WAY	ORACLE	AZ	85623
THOMAS & BARBARA LAMBRECHT	31956 S LONE VISTA WAY	ORACLE	AZ	85623
MICHAEL & MARLYCE MYCKA	31936 S LONE VISTA WAY	ORACLE	AZ	85623
FRANK LANNING	31916 S LONE VISTA WAY	ORACLE	AZ	85623
LARRY & DONNA NEIBCH	31892 S LONE VISTA WAY	ORACLE	AZ	85623
BRIAN & GAYLE BROGIE	31862 S LONE VISTA WAY	ORACLE	AZ	85623
RAYMOND & GRETCHEN MALASKI	31840 S LONE VISTA WAY	ORACLE	AZ	85623
DONALD PRASEK	60922 E AMUR LANE	ORACLE	AZ	85623

MARY ECKERT	60936 E AMUR LANE	ORACLE	AZ	85623
JOHN & JOHANNA NEWMAN	60956 E AMUR LANE	ORACLE	AZ	85623
JOHN CLAYBURG & ELISABETH LARSEN	31728 S FLAT ROCK DRIVE	ORACLE	AZ	85623
ELEANOR STRANDBERG	31712 S FLAT ROCK DRIVE	ORACLE	AZ	85623
DENNIS & KAREN MCOMBER	31698 S FLAT ROCK DRIVE	ORACLE	AZ	85623
BRUCE & ELIZABETH SIMONSEN	3540 FELTON TERRACE	PLEASANTON	CA	94566
DANIEL & CHARLENE CULVER	31664 S FLAT ROCK DRIVE	ORACLE	AZ	85623
ANDREW & TIFFANY MCGHEE	2212 QUEEN ANNE AVENUE N #257	SEATTLE	WA	98109
LORENZETTI LIVING TRUST	31634 S FLAT ROCK DRIVE	ORACLE	AZ	85623
KIM & JOYCE LUCKMAN	31618 S FLAT ROCK DRIVE	ORACLE	AZ	85623
THOMAS & NANCY HURLBURT	31596 S FLAT ROCK DRIVE	ORACLE	AZ	85623
DENNIS & DONNA JOANNIDES	31578 S FLAT ROCK DRIVE	ORACLE	AZ	85623
ROBERT & PAMELA WAMPLE	31562 S FLAT ROCK DRIVE	ORACLE	AZ	85623
WILLIAM & CHRISTEL BURCH	59872 E JACARANDA PLACE	ORACLE	AZ	85623
RICHARD & SANDRA INGLEFIELD	1175 NEWSTAR WAY APT. 420	GOLDEN	CO	80403
MIRIAM BROCK	59844 E JACARANDA PLACE	ORACLE	AZ	85623
TERRI PATTON	59830 E JACARANDA PLACE	ORACLE	AZ	85623
MARC & DEBRA ARGABRIGHT	59816 E JACARANDA PLACE	ORACLE	AZ	85623
CORRINE GLESNE	59802 E JACARANDA PLACE	ORACLE	AZ	85623
CAROL BURNETT	59788 E JACARANDA PLACE	ORACLE	AZ	85623
LESLIE COOKE	59764 E JACARANDA PLACE	ORACLE	AZ	85623
MARK & HARGETT JOHNSON	59732 E JACARANDA PLACE	ORACLE	AZ	85623
DAISY SECHRIST	31266 S NECTAR LANE	ORACLE	AZ	85623
CHRISTOPHER & SHARON ORLANDO	31284 S NECTAR LANE	ORACLE	AZ	85623
SCOTT & MARI SENDEN	31300 S NECTAR LANE	ORACLE	AZ	85623
RICHARD & DEBORAH PENNINGTON	31320 S NECTAR LANE	ORACLE	AZ	85623
WILLIAM & ANNE BUDO	31336 S NECTAR LANE	ORACLE	AZ	85623
MARY CAHILL	31358 S NECTAR LANE	ORACLE	AZ	85623
TIMOTHY & DEBORAH BOWEN	31372 S NECTAR LANE	ORACLE	AZ	85623
DAVID & PATRICIA FRESTEDT	31390 S NECTAR LANE	ORACLE	AZ	85623
SHEILAH BRITTON	31420 S NECTAR LANE	ORACLE	AZ	85623
THOMAS & SANDRA GOODWIN	31430 S NECTAR LANE	ORACLE	AZ	85623
STEVEN & CHERYL MARGOLIS	59821 E PINYON DRIVE	ORACLE	AZ	85623
MICHAEL & DEBORAH TREACY	59835 E PINYON DRIVE	ORACLE	AZ	85623
RICHARD & MARGARET ROGERS	799 POTATO PATCH DRIVE UNIT B	VAIL	CO	81657
KATHLEEN MARTIN	59859 E PINYON DRIVE	ORACLE	AZ	85623
MICHAEL & JOY CAFFERTY	59871 E PINYON DRIVE	ORACLE	AZ	85623
TERRY & JACQUELINE BEEM	59883 E PINYON DRIVE	ORACLE	AZ	85623
EDWARD & FRANCES HARRINGTON	59891 E PINYON DRIVE	ORACLE	AZ	85623
BRIAN & SHERI STARK	59903 E PINYON DRIVE	ORACLE	AZ	85623
DAVID & DENISE JOYCE	59949 E WREN CIRCLE	ORACLE	AZ	85623
PAUL & CAREN LAPOTOSKY	59969 E WREN CIRCLE	ORACLE	AZ	85623
ANDREW & REGINA RACUCH	59987 E WREN CIRCLE	ORACLE	AZ	85623
MARK & MARY LEIFER	59991 E WREN CIRCLE	ORACLE	AZ	85623
ROBERT & LORETTA PAGE	59992 E WREN CIRCLE	ORACLE	AZ	85623
JOHN DAYTON	59988 E WREN CIRCLE	ORACLE	AZ	85623
DAVID & LINDA DAUBERS	59968 E WREN CIRCLE	ORACLE	AZ	85623
RICHARD ANDERSON	59946 E WREN CIRCLE	ORACLE	AZ	85623
MICHAEL & INGRID MCMANUS	31255 S ZINNA ORACLE	ORACLE	AZ	85623
CLAIRE & KATHERINE MCARTHUR	3971 COLE AVENUE	DALLAS	TX	75204
FREDERICK & KATRINA HORSTMAN	31221 S ZINNA	ORACLE	AZ	85623
JAMES & CYNTHIA HAMMONDS	31201 S ZINNA TRAIL	ORACLE	AZ	85623
PHYLIP & KAREN PELTIER	59829 E JACARANDA PLACE	ORACLE	AZ	85623
JAMES & LENORE KOLHOFF	11368 OREGON CIRCLE	FENTON	MI	48430
JOSEPH & DONNA GLAS	59797 E JACARANDA PLACE	ORACLE	AZ	85623
KEITH & LAURA GILCHRIST	59771 E JACARANDA PLACE	ORACLE	AZ	85623
JOHN & MONICA OSZUST	60233 E ANKOLE DRIVE	ORACLE	AZ	85623
EDWARD & DONNA BIRCH	59876 E JUNIPER ROAD	ORACLE	AZ	85623
JACQUELINE ELPHIC	59862 E JUNIPER ROAD	ORACLE	AZ	85623

TIMOTHY & KENNEDY SCHAAL	59844 E JUNIPER ROAD	ORACLE	AZ	85623
BRIAN & PAULA JOHNSON	59830 E JUNIPER ROAD	ORACLE	AZ	85623
MICHELE & TEASDALE MADGAR	59812 E JUNIPER ROAD	ORACLE	AZ	85623
JAMES & KATHLEEN DYER	59786 E JUNIPER ROAD	ORACLE	AZ	85623
MORLIN & KELLY HASTINGS	59764 E JUNIPER ROAD	ORACLE	AZ	85623
FRANK & NANCY HUGUS	59875 E JUNIPER ROAD	ORACLE	AZ	85623
DAVID & KARIN SMITH	59855 E JUNIPER ROAD	ORACLE	AZ	85623
FREDERICK MAKI	59841 E JUNIPER ROAD	ORACLE	AZ	85623
EDWARD & LIZABETH WATSON	59827 E JUNIPER ROAD	ORACLE	AZ	85623
BENEDICT GENTILE	59811 E JUNIPER ROAD	ORACLE	AZ	85623
GRACE THOMPSON	59799 E JUNIPER ROAD	ORACLE	AZ	85623
TIMOTHY & PATRICIA BAKER	59785 E JUNIPER ROAD	ORACLE	AZ	85623
DAVID LANDRY	59767 E JUNIPER ROAD	ORACLE	AZ	85623
STEVEN & FRANCES AGGERS	5884 BROMBOROUGH DRIVE	WINDSOR	CO	80550
DAVID GRUCA & NANCY RICHMOND-GRUCA	59920 E PINYON DRIVE	ORACLE	AZ	85623
JEFFREY & JUDY SMITH	59894 E PINYON DRIVE	ORACLE	AZ	85623
ALEXANDER & NELDA LANGOUSSIS	59870 E PINYON DRIVE	ORACLE	AZ	85623
DOUGLAS & AILEEN WATERS	59852 E PINYON DRIVE	ORACLE	AZ	85623
SCOTT & AMY BELFORD	59838 E PINYON DRIVE	ORACLE	AZ	85623
TIMOTHY & GLENDA RESH	9333 EDENSBURY COURT	ELK GROVE	CA	95758
EDWARD GEORGE & DONNA SWINDELL	59814 E PINYON DRIVE	ORACLE	AZ	85623
COOK REVOCABLE TRUST	59800 E PINYON DRIVE	ORACLE	AZ	85623
STEPHEN & SUSAN IRONS	31580 S HACKBERRY LANE	ORACLE	AZ	85623
DONNELL LOCKWOOD	31594 S HACKBERRY LANE	ORACLE	AZ	85623
MARK & KATHLEEN HANSON	238 SAINT STREET	RICHLAND	WA	99354
GARY & SALLY GRASSO	31622 S HACKBERRY LANE	ORACLE	AZ	85623
JOHN & BARBARA NICOLICH	31630 S HACKBERRY LANE	ORACLE	AZ	85623
WAYNE STAFFORD	P.O. BOX 680466	PARK CITY	UT	84068
MICHAEL & SUSANE MAGIC	31658 S HACKBERRY LANE	ORACLE	AZ	85623
ROBERT & SANDRA RIZK	31672 S HACKBERRY LANE	ORACLE	AZ	85623
WILLA & JOYCE WATT	59716 E HERON DRIVE	ORACLE	AZ	85623
CHARLES & RONDA CONGDON	59686 E HERON DRIVE	ORACLE	AZ	85623
RAYMOND & AMY DONALDSON	59656 E HERON DRIVE	ORACLE	AZ	85623
BURSON FAMILY TRUST	59632 E HERON DRIVE	ORACLE	AZ	85623
STEVEN GOSSARD	31593 S HACKBERRY LANE	ORACLE	AZ	85623
CORBIN & ERIN NEWMAN	31633 S HACKBERRY LANE	ORACLE	AZ	85623
DAVID & DEBRA VANTASSEL	2729 CUMULUS DRIVE	ESTES PARK	CO	80517
KENNETH & KAREN CARDER	59804 E HERON DRIVE	ORACLE	AZ	85623
JOHN & DAWN GETTMAN	59792 E HERON DRIVE	ORACLE	AZ	85623
CHERYL PARR	59780 E HERON DRIVE	ORACLE	AZ	85623
CARL NELSON	59766 E HERON DRIVE	ORACLE	AZ	85623
ROBERT & KAY GRADY	59758 E HERON DRIVE	ORACLE	AZ	85623
CHRISTOPHER & LISA COKER	59803 E HERON DRIVE	ORACLE	AZ	85623
NELSON & KAREN NELSON	59787 E HERON DRIVE	ORACLE	AZ	85623
RUSSELL & CAROL SACKS	59773 E HERON DRIVE	ORACLE	AZ	85623
VINCENT & SUZANNE LANUZA	59755 E HERON DRIVE	ORACLE	AZ	85623
CHARLES & EILEEN SEELYE	59745 E HERON DRIVE	ORACLE	AZ	85623
THOMAS & MARGARET RIDOLFO	59725 E HERON DRIVE	ORACLE	AZ	85623
ROBERT & GAIL JAMIN	59709 E HERON DRIVE	ORACLE	AZ	85623
NANCY EISENSTEIN	59687 E HERON DRIVE	ORACLE	AZ	85623
EDWARD & JACQUELINE BOLL	59671 E HERON DRIVE	ORACLE	AZ	85623
THOMAS SOMENSKE & MARGARET OTOOLE-SOMENSKE	59657 E HERON DRIVE	ORACLE	AZ	85623
MICHAEL & JACKIE WINTER	59635 E HERON DRIVE	ORACLE	AZ	85623
KATHRYN ADIS	59619 E HERON DRIVE	ORACLE	AZ	85623
CHARLES & ANNETTE JANSSEN	59857 E HERON DRIVE	ORACLE	AZ	85623
JOSEPH & MARY TOMASELLO	59879 E HERON DRIVE	ORACLE	AZ	85623
JOHN SOARES & TINA HENDRIX	59907 E HERON DRIVE	ORACLE	AZ	85623
JAMES & KATHLEEN RODINE	59923 E HERON DRIVE	ORACLE	AZ	85623
CHARLES & JULIE PEEK	59943 E HERON DRIVE	ORACLE	AZ	85623

KENNETH & DARLENE WILCOX	59957 E HERON DRIVE	ORACLE	AZ	85623
THOMAS & KATHLEEN FIRST	59973 E HERON DRIVE	ORACLE	AZ	85623
KENNETH & LANA MOORE	31496 S TAMARISK PLACE	ORACLE	AZ	85623
JOHN & EILEEN LANGHOLFF	31502 S TAMARISK PLACE	ORACLE	AZ	85623
KAREN DRAPER	31508 S TAMARISK PLACE	ORACLE	AZ	85623
DONNA LURA	31514 S TAMARISK PLACE	ORACLE	AZ	85623
MARK & BETTY SEBERGER	60161 E BLUE PALM DRIVE	ORACLE	AZ	85623
RICHARD & TERESA BEACH	60167 E BLUE PALM DRIVE	ORACLE	AZ	85623
THERESA WELSH	60171 E BLUE PALM DRIVE	ORACLE	AZ	85623
LLOYD & PATRICIA DEMARTINI	31435 S TURQUOISE LANE	ORACLE	AZ	85623
PAUL & TRIEBESS PICCHIOTTINO	31421 S TURQUOISE LANE	ORACLE	AZ	85623
ROGER & MARSHA LINDEKEN	31401 S TURQUOISE LANE	ORACLE	AZ	85623
ANTHONY & JUDY PETCHAR	31377 S TURQUOISE LANE	ORACLE	AZ	85623
TODD & JACQUELINE LAUER	31359 S TURQUOISE LANE	ORACLE	AZ	85623
JOHN & CAROLYN KANE	60142 E HERON DRIVE	ORACLE	AZ	85623
STEVEN & CONSTANCE IRWIN	60130 E HERON DRIVE	ORACLE	AZ	85623
BRIAN & JUDY GILMORE	60118 E HERON DRIVE	ORACLE	AZ	85623
VIDA KACZMAREK	60104 E HERON DRIVE	ORACLE	AZ	85623
DAVID & GAYLE RICHEY	60088 E HERON DRIVE	ORACLE	AZ	85623
DAVID & SHARON STEEN	60074 E HERON DRIVE	ORACLE	AZ	85623
JOHN JOHANNES & PEGGY YASUKOCHI	60060 E HERON DRIVE	ORACLE	AZ	85623
RONALD & MARILYN ERDEI	60048 E HERON DRIVE	ORACLE	AZ	85623
MICHAEL & BETTY STANIEC	60034 E HERON DRIVE	ORACLE	AZ	85623
JAYSON & SUZY CLAR	60020 E HERON DRIVE	ORACLE	AZ	85623
WILLIAM & ANA HUFFMAN	59996 E HERON DRIVE	ORACLE	AZ	85623
JOEL & NANCY OLSEN	59962 E HERON DRIVE	ORACLE	AZ	85623
GORDON & MARGARET MORO	59938 E HERON DRIVE	ORACLE	AZ	85623
JOHN HALBIG & ANN HULETT	59922 E HERON DRIVE	ORACLE	AZ	85623
JACK & MELINDA FINCHAM	59904 E HERON DRIVE	ORACLE	AZ	85623
ROCKY & KAREN HART	59888 E HERON DRIVE	ORACLE	AZ	85623
WILLIAM & FRED A SHUMAN	59874 E HERON DRIVE	ORACLE	AZ	85623
MICHAEL & LORI LEONARD	59856 E HERON DRIVE	ORACLE	AZ	85623
CHRISTOPHER & SHARON ORLANDO	160 S OAK STREET STE 100	SISTERS	OR	97759
BRIGITTE TOUCHIQUE & ROCKLYNN SOBOLIK	60164 E BLUE PALM DRIVE	ORACLE	AZ	85623
DAVID & LYDIA SPARKS	60160 E BLUE PALM DRIVE	ORACLE	AZ	85623
DOUGLAS & BEVERLY REDFIELD	60156 E BLUE PALM DRIVE	ORACLE	AZ	85623
DIANE HENKE	60152 E BLUE PALM DRIVE	ORACLE	AZ	85623
RUSSELL & PENNEY OSTER	60148 E BLUE PALM DRIVE	ORACLE	AZ	85623
JOHN & MELISSA NEWFANG	60131 E HERON DRIVE	ORACLE	AZ	85623
JOHN GEIGER & SHERYL BERMAN	60117 E HERON DRIVE	ORACLE	AZ	85623
GILBERT & CHRISTINE LOGAN	60103 E HERON DRIVE	ORACLE	AZ	85623
CHRISTOPHER & CYNTHIA PYLKKA	60091 E HERON DRIVE	ORACLE	AZ	85623
ROBERT & KAY JOHNSON	60077 E HERON DRIVE	ORACLE	AZ	85623
JOSEPH & ROSA SEIBEL	60057 E HERON DRIVE	ORACLE	AZ	85623
ROBERT & BONNY DEMMERT	60035 E HERON DRIVE	ORACLE	AZ	85623
WOLF TOMBE	60019 E HERON DRIVE	ORACLE	AZ	85623
JENNIFER VALVERDE	31647 S SUMMERWIND DRIVE	ORACLE	AZ	85623
ANDREW & JUDITH ABADIA	31609 S SUMMERWIND DRIVE	ORACLE	AZ	85623
DAVID & REGINA MAISCH	31587 S SUMMERWIND DRIVE	ORACLE	AZ	85623
LANSON & CAROL SUTTER	31565 S SUMMERWIND DRIVE	ORACLE	AZ	85623
CRAIG & CINDY RUE	31553 S SUMMERWIND DRIVE	ORACLE	AZ	85623
STEVEN & VALERIE LAAK	60228 E PEPPERTREE LANE	ORACLE	AZ	85623
RICHARD & CORINNE ZABINSKI	60208 E PEPPERTREE LANE	ORACLE	AZ	85623
JOHN & JUDITH CALLAHAN	60188 E PEPPERTREE LANE	ORACLE	AZ	85623
STEPHEN & CAROLYN LAETHEM	1847 HACIENDA DRIVE	EL CAJON	CA	92020
FREDERICK & GAIL DAVILA	60132 E PEPPERTREE LANE	ORACLE	AZ	85623
EMILIO & JILL ACOSTA	60110 E PEPPERTREE LANE	ORACLE	AZ	85623
ALAIN & JULIE MARTINEZ	P.O. BOX 3629	WRIGHTWOOD	CA	92397
LARRY & LINDA MARTIN	60048 E PEPPERTREE LANE	ORACLE	AZ	85623

MELVIN & ARTEENA ALLEN	60034 E PEPPERTREE LANE	ORACLE	AZ	85623
DENNIS & SAYRE ABBEY	60024 E PEPPERTREE LANE	ORACLE	AZ	85623
MATTHEW & PEDOTA NELSON	31630 S SUMMERWIND DRIVE	ORACLE	AZ	85623
JOEL & EILEEN WAGNER	31566 S SUMMERWIND DRIVE	ORACLE	AZ	85623
RICHARD & STACY MERRITT	31645 S TAMARISK PLACE	ORACLE	AZ	85623
ROBERT & DEBRA CRESSIO	31635 S TAMARISK PLACE	ORACLE	AZ	85623
RICHARD & KATHY WEILAND	31617 S TAMARISK PLACE	ORACLE	AZ	85623
RANDY & LINDA WRIGHT	31640 S TAMARISK PLACE	ORACLE	AZ	85623
COLIN & MARDIECE PATRICK	31618 S TAMARISK PLACE	ORACLE	AZ	85623
RICKY AULTMAN	60081 E PEPPERTREE LANE	ORACLE	AZ	85623
GUY & DEBRA SHELTON	60391 E SABINO DRIVE	ORACLE	AZ	85623
GERALD & DIANE FOX	60381 E SABINO DRIVE	ORACLE	AZ	85623
PAUL & CAROLEE BAILEY	60371 E SABINO DRIVE	ORACLE	AZ	85623
LEONARD SCHENKEL	60357 E SABINO DRIVE	ORACLE	AZ	85623
STANLEY & DENISE DOEPKE	60345 E SABINO DRIVE	ORACLE	AZ	85623
TIMOTHY & BRENDA POOLER	60327 E SABINO DRIVE	ORACLE	AZ	85623
WATLER & REBECCA RUZICK	60309 E SABINO DRIVE	ORACLE	AZ	85623
GEORGE PATTERSON & SHELLEY ZIEGLER	60291 E SABINO DRIVE	ORACLE	AZ	85623
ROBERT OLDSON	4001 STOVER AVENUE	SPIRIT LAKE	IA	51360
JOHN & MARCI WHITEHEAD	60255 E SABINO DRIVE	ORACLE	AZ	85623
JON SEMKE & DEBBIE CORNETT	60239 E SABINO DRIVE	ORACLE	AZ	85623
CURTIS & JO ANN KAMADA	60223 E SABINO DRIVE	ORACLE	AZ	85623
RICHARD & MARY DAHLIN	60205 E SABINO DRIVE	ORACLE	AZ	85623
MARSHALL & MARY BLACK	60191 E SABINO DRIVE	ORACLE	AZ	85623
GAIL LATIMER	31900 S AGARITA DRIVE	ORACLE	AZ	85623
BARBARA HEFT	31878 S AGARITA DRIVE	ORACLE	AZ	85623
RICHARD & JEANNE OSTERLUND	31860 S AGARITA DRIVE	ORACLE	AZ	85623
SALVATORE & MARY CALBONE	31842 S AGARITA DRIVE	ORACLE	AZ	85623
LEE & MARY STASTNY	31820 S AGARITA DRIVE	ORACLE	AZ	85623
ROY & EVALYN THOMPSON	31794 S AGARITA DRIVE	ORACLE	AZ	85623
SHERRY & STEPHEN WEISS	31776 S AGARITA DRIVE	ORACLE	AZ	85623
KELLY MCGARRITY	1377 GABRIEL LANE	WARWICK	PA	18974
LARRY BURCHFIELD	31742 S AGARITA DRIVE	ORACLE	AZ	85623
MARVIN SOSKIL & JANISE VERDI-SOSKIL	31724 S AGARITA DRIVE	ORACLE	AZ	85623
DAVID AMBLER & VICKI FROISTAD	31893 S AGARITA DRIVE	ORACLE	AZ	85623
ROBERT & JUDITH TOWNSEND	31875 S AGARITA DRIVE	ORACLE	AZ	85623
JONATHAN & JOAN BROOKS	31857 S AGARITA DRIVE	ORACLE	AZ	85623
MARK & LANI WARREN	31839 S AGARITA DRIVE	ORACLE	AZ	85623
DAVID & PAMELA BLAESS	31821 S AGARITA DRIVE	ORACLE	AZ	85623
BARBARA WHITEHEAD	31785 S AGARITA DRIVE	ORACLE	AZ	85623
SHEILA DAVIDSON & MARTIN KNEZOVICH	31759 S AGARITA DRIVE	ORACLE	AZ	85623
BILLY & MARSHA MCINVALE	31729 S AGARITA DRIVE	ORACLE	AZ	85623
STEVEN & DEBORAH CHAPMAN	31832 S TAMARISK PLACE	ORACLE	AZ	85623
THOMAS & KAREN KEINATH	90 CRESCENT MOON TRAIL	SILVERTHORNE	CO	80498
PAUL & CATHERINE THOMSEN	31798 S TAMARISK PLACE	ORACLE	AZ	85623
LAWRENCE NEDDER	2068 WEDGEWOOD DRIVE	ASBURY	IA	52002
ERNEST & KATHLEEN NEDDER	60163 E FOXGLOVE LANE	ORACLE	AZ	85623
KEVIN HAND	31833 S TAMARISK PLACE	ORACLE	AZ	85623
TIMOTHY & JULEE MALONE	31795 S TAMARISK PLACE	ORACLE	AZ	85623
KARL KNIGHT	31770 S SUMMERWIND DRIVE	ORACLE	AZ	85623
FRANKLIN & LINDA SHERFY	31752 S SUMMERWIND DRIVE	ORACLE	AZ	85623
WILLIAM & KAREN OPRISH	31771 S SUMMERWIND DRIVE	ORACLE	AZ	85623
BRIAN & NANCY COWMAN	60374 E SABINO DRIVE	ORACLE	AZ	85623
WAYNE UTECHT	31741 S SUMMERWIND DRIVE	ORACLE	AZ	85623
FLOYD & NANCY TUEL	31707 S SUMMERWIND DRIVE	ORACLE	AZ	85623
DENNIS & MARY ECKMEYER	31728 S SUMMERWIND DRIVE	ORACLE	AZ	85623
ELIZABETH & RICHARD RYAN	31710 S SUMMERWIND DRIVE	ORACLE	AZ	85623
WILLIAM & DIAN GOWEN	31771 S TAMARISK PLACE	ORACLE	AZ	85623
ERIC NORMEN	31757 S TAMARISK PLACE	ORACLE	AZ	85623

RONALD DENNIS	60194 E FOXGLOVE LANE	ORACLE	AZ	85623
THOMAS TOSSEY	60182 E FOXGLOVE LANE	ORACLE	AZ	85623
ROBERT & JANELLE AUTHUR	60164 E FOXGLOVE LANE	ORACLE	AZ	85623
MICHAEL & ALEXANDRA ANNA	60873 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
SCOTT & ELLON JARVIS	60855 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
KENNETH & TERESA HULL	60837 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
WALTER & SHARON MOREY	60819 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
WILLIAM HARANT	60803 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
DUANE & ANNE BRETT	60785 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
WILLIAM & DOREEN REYNOLDS	60765 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
BRUCE & LYDIA STRICKLAND	60749 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
LARRY & LINDA RICHTER	60731 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
CHARLES & DONNA NORRIS	60713 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
MICHAEL OBLENESS & KIMBERLY TURNER	60665 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
JAMES DEHN	60647 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
ROBERT & DEBRA FERGUSON	60629 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
MARK DICKSTON	60611 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
WILLIAM & LINDA HARVEY	60587 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
PAMELA RYAN	60571 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
SCOTT & WENDY MCMILLAN	60551 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
JACK SMITH	60539 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
JOHN WILLIAMS	60521 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
REBECCA WILLIAMS	60501 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
FRANK MOORE	60481 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
SHERYL RATLIFF	60463 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
MICHAEL & KAREN PHILLIPS	60437 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
FLOYD GREGORY	60413 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
WILLIAM & CAROL MIHAL	32265 S AGARITA DRIVE	ORACLE	AZ	85623
MARK & JANETTE MARTIN	32289 S AGARITA DRIVE	ORACLE	AZ	85623
RICHARD & NANCY FERRIS	32312 S AGARITA DRIVE	ORACLE	AZ	85623
ALLEN & PENNY BROCKSHUS	1000 LIGHTHOUSE DRIVE	MILFORD	IA	51351
CARL HERBERT	32264 S AGARITA DRIVE	ORACLE	AZ	85623
JOHN VALLINOTO	60379 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
GEORGE & VICTORIA PRICE	60365 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
LORA BURTON	60355 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
JAMES DOYLE	60381 E ANKOLE DRIVE	ORACLE	AZ	85623
DEAN & RAYNELLE DUHL	60377 E ANKOLE DRIVE	ORACLE	AZ	85623
MARK & LINDA NOBLE	60373 E ANKOLE DRIVE	ORACLE	AZ	85623
JAMES DOUGHERTY & JEANNE HARDIMAN	60369 E ANKOLE DRIVE	ORACLE	AZ	85623
LAWRENCE & LINDA STRUGALA	60365 E ANKOLE DRIVE	ORACLE	AZ	85623
LARRY & KAREN RASMUSSEN	60361 E ANKOLE DRIVE	ORACLE	AZ	85623
GWENN SOBEL	60357 E ANKOLE DRIVE	ORACLE	AZ	85623
JAMES RESSEGUIE	60353 E ANKOLE DRIVE	ORACLE	AZ	85623
DONALD & LESLIE FORE	60349 E ANKOLE DRIVE	ORACLE	AZ	85623
MICHAEL & KARI ERICKSON	2663 RAVENHILL CIRCL	LITTLETON	CO	80126
STEPHEN & CATHLEEN KOVACH	60341 E ANKOLE DRIVE	ORACLE	AZ	85623
WILLIAM & LINDA PATENT	60333 E ANKOLE DRIVE	ORACLE	AZ	85623
LARRY & SHARON MARCHANT	60317 E ANKOLE DRIVE	ORACLE	AZ	85623
NIEL & JANET CHRISTENSEN	60295 E ANKOLE DRIVE	ORACLE	AZ	85623
DAVID & HEIDI KLEPACKI	60277 E ANKOLE DRIVE	ORACLE	AZ	85623
RONALD & GERI GREEN	60255 E ANKOLE DRIVE	ORACLE	AZ	85623
TERESA & KARL FLETCHER	60211 E ANKOLE DRIVE	ORACLE	AZ	85623
TERENCE HURLEY	60189 E ANKOLE DRIVE	ORACLE	AZ	85623
WILLIAM & CHERYL MOORE	60167 E ANKOLE DRIVE	ORACLE	AZ	85623
MARVIN & BONNIE RICHTER	60145 E ANKOLE DRIVE	ORACLE	AZ	85623
KEITH & SUSAN MEULEMANS	2581 WHITE PINE ROAD	SUAMICO	WI	54313
DALE & THERESA BARRINGER	60081 E ANKOLE DRIVE	ORACLE	AZ	85623
STEPHEN & CHRISTINE KAESTLE	60043 E ANKOLE DRIVE	ORACLE	AZ	85623
ROGER & LAURENE FISHER	60023 E ANKOLE DRIVE	ORACLE	AZ	85623

JOHN & VALERIE STRYKER	60013 E ANKOLE DRIVE	ORACLE	AZ	85623
JOHN & PATRICIA MCCALLUM	60007 E ANKOLE DRIVE	ORACLE	AZ	85623
ROBERT & LE ANN CHRISTIANSON	60001 E ANKOLE DRIVE	ORACLE	AZ	85623
PAULINE ALBERT	59993 E ANKOLE DRIVE	ORACLE	AZ	85623
TIMOTHY & LUCY PECK	9351 N BECKY ROAD	PLYMOUTH	MI	48170
MICHAEL & LINDA HART	59979 E ANKOLE DRIVE	ORACLE	AZ	85623
CRAIG JANS	59971 E ANKOLE DRIVE	ORACLE	AZ	85623
JOHN BRAY	59967 E ANKOLE DRIVE	ORACLE	AZ	85623
JAMES & LYDIA REICHARD	59955 E ANKOLE DRIVE	ORACLE	AZ	85623
DARRELL & KRISTINE PETERSON	3370 WHITENEY CIRCLE	ANCHORAGE	AK	99516
KAREN RANSOM	32795 S EGRET TRAIL	ORACLE	AZ	85623
JOHN & DEBORAH TRAPP	32809 S EGRET TRAIL	ORACLE	AZ	85623
CHARLES & KATHY MUSCHANY	4870 RETRIEVER CIRCLE	ANCHORAGE	AK	99502
MICHAEL OHANIAN	32855 S EGRET TRAIL	ORACLE	AZ	85623
DONALD GRIMES	32873 S EGRET TRAIL	ORACLE	AZ	85623
JOSEPH & CAMILLE ESTERMAN	32889 S EGRET TRAIL	ORACLE	AZ	85623
DAVID & DONNA PREWITT	32905 S EGRET TRAIL	ORACLE	AZ	85623
JON & CATHERINE JUHLIN	4144C S HORE DRIVE	CLEAR LAKE	IA	50428
STEVEN & JAN OSTERKAMP	32937 S EGRET TRAIL	ORACLE	AZ	85623
WILLIAM & CHERYL PETTIJOHN	32959 S EGRET TRAIL	ORACLE	AZ	85623
EDWARD & CHERYL NASALIK	32977 S EGRET TRAIL	ORACLE	AZ	85623
RICHARD & DIANE STILL	32995 S EGRET TRAIL	ORACLE	AZ	85623
MICHAEL & LINDA CHONLE	33009 S EGRET TRAIL	ORACLE	AZ	85623
STEPHEN HANNS & JENNIFER BLACK	33021 S EGRET TRAIL	ORACLE	AZ	85623
ANN PEART	33039 S EGRET TRAIL	ORACLE	AZ	85623
HOLLY BLAKE	P.O. BOX 785	HAYDEN	CO	81639
PATRICIA ATCHLEY	290 S 208TH STREET	ELKHORN	NE	68022
RICHARD & SUSAN THOMPSON	33061 S EGRET TRAIL	ORACLE	AZ	85623
WILLNAT LLC	9941 PECORINO ISLE	BOYNTON BEACH	FL	33473
LARRY & SANDRA BICKELHAUPT	60372 E ANKOLE DRIVE	ORACLE	AZ	85623
JOHN & CAROLYN NORDSTROM	60380 E ANKOLE DRIVE	ORACLE	AZ	85623
DAVID & MARY TOWNSEND	P.O. BOX 575	CROCKETT	CA	94525
JOHN & BARBARA SIMON	32433 S DESERT PUFFISH DRIVE	ORACLE	AZ	85623
DOUGLAS & EMILY SMART	32411 S DESERT PUFFISH DRIVE	ORACLE	AZ	85623
RANDOLPH & REBECCA ELDE	P.O. BOX 615	CLEARLAKE	WA	98235
THOMAS & LYNN BEARD	32375 S DESERT PUFFISH DRIVE	ORACLE	AZ	85623
WILLIAM SCHWAB & TONI PILAR-SCHWAB	14327 E LAYTON DRIVE	AURORA	CO	80015
JAMES & LINDA VOLZ	32452 S DESERT PUFFISH DRIVE	ORACLE	AZ	85623
RICHARD FLINK & JUDITH YAZZIE	32432 S DESERT PUFFISH DRIVE	ORACLE	AZ	85623
CRAIG & STACY MATTHEWS	11214 44TH DRIVE NE	MARYSVILLE	WA	98271
KENNETH DRUMMY	5606 SWIFT CREEK DRIVE	MOUNT VERNON	WA	98273
ROBERT & PAMELA SARLUND	32378 S DESERT PUFFISH DRIVE	ORACLE	AZ	85623
JAME MCKAY	32360 S DESERT PUFFISH DRIVE	ORACLE	AZ	85623
WILLIAM & SANDRA SEAY	60263 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
MARK & VICKI KELLER	2942 EASTERN BOULEVARD	BALDWIN	NY	11510
MICHAEL & LINDA NICHOLSON	60209 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
DAVID ALLISON	60191 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
MICHAEL & SUSAN MILLER	31925 SE WILDCAT MOUNTAIN DRIVE	EAGLE CREEK	OR	97022
RICHARD & JANIS KNAPP	60157 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
ELLYN BIGGS	60139 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
MARTHA & JOSE SUAREZ	3916 N POTSDAM AVENUE	SIOUX FALLS	SD	57104
MICHAEL & MARGARET MCGINNIS	60103 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
THOMAS & JOAN GRAWE	60083 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
RACHEL JAHNKE	60047 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
LINDA GIBSON	32359 S EGRET TRAIL	ORACLE	AZ	85623
RICHARD & CHRISTINE STONE	323 WILSON ROAD	EASTON	CT	06612
LARRY & CHERYL LEGER	32381 S EGRET TRAIL	ORACLE	AZ	85623
ALFRED & NANCY SWENSON	32401 S EGRET TRAIL	ORACLE	AZ	85623
ROBERT & BARBARA DRURY	32425 S EGRET TRAIL	ORACLE	AZ	85623

GIFFORD & SANDRA JESSOP	32451 S EGRET TRAIL	ORACLE	AZ	85623
PAUL & JEANETTE KIEFFER	167 KIEFFER HILLS DRIVE	SAINT CHARLES	MN	55972
ALFRED & TINA KOHL	59908 E HORNBILL PLACE	ORACLE	AZ	85623
MICHAEL & JULIA PRICE	59986 E HORNBILL PLACE	ORACLE	AZ	85623
CHRISTINA & HG GODBEY	59966 E HORNBILL PLACE	ORACLE	AZ	85623
JELLE & DIANE BOOT	1 CAMPBELL DRIVE	SOMERS	NY	10589
CINDI & MARK MADISON	59930 E HORNBILL PLACE	ORACLE	AZ	85623
KENNETH & DONALEE LOMICA	336 WHITE FIR WAY	ROSEBURG	OR	97471
BARBARA WARNELL	32459 S SANDPIPER PLACE	ORACLE	AZ	85623
PATRICK & STEPHANIE HENDRICKS	32445 S SANDPIPER PLACE	ORACLE	AZ	85623
RAYMOND & MELANIE RITSON	32417 S SANDPIPER PLACE	ORACLE	AZ	85623
MEHLOHRN FAMILY TRUST	32420 S SANDPIPER PLACE	ORACLE	AZ	85623
WILLIAM & MAUREEN BALL	32446 S SANDPIPER PLACE	ORACLE	AZ	85623
PHILIP & MARY PRESTON	32460 S SANDPIPER PLACE	ORACLE	AZ	85623
RICHARD & PAULINE SULLIVAN	9424 GEORGETOWN LANE	VILLAGE OF LAKEWOOD	IL	60014
CHARLES & BARBARA SIMMS	32495 S ADDAX PLACE	ORACLE	AZ	85623
D & K RENTAL INVESTMENTS	32475 S ADDAX PLACE	ORACLE	AZ	85623
RUSSEL & SHERRY BARTO	32457 S ADDAX PLACE	ORACLE	AZ	85623
ROBERT & CAPTOLA DONALDSON	32439 S ADDAX PLACE	ORACLE	AZ	85623
BROOKS & MICHELLE LARSON	P. O. BOX 341	SAVAGE	MN	55378
RICHARD & SANDRA FINEGOOD	32424 S ADDAX PLACE	ORACLE	AZ	85623
MARK & ROBIN YOUNG	32438 S ADDAX PLACE	ORACLE	AZ	85623
MICHAEL & JANIS DUWE	32458 S ADDAX PLACE	ORACLE	AZ	85623
JAMES & ROBERTA SPIEGEL	32476 S ADDAX PLACE	ORACLE	AZ	85623
GERALD SHINER & POLLY JONES	2812 FRANKLIN STREET	BELLINGHAM	WA	98225
MICHAEL & PATRICIA HENDERSON	32511 S PLOVER PLACE	ORACLE	AZ	85623
MARTIN & MARGARET BOOKER	32493 S PLOVER PLACE	ORACLE	AZ	85623
DONALD & KAREN MALEK	32477 S PLOVER PLACE	ORACLE	AZ	85623
FRANK & PATRICIA COMBS	32461 S PLOVER PLACE	ORACLE	AZ	85623
GARY & DEBORAH SANDIN	32449 S PLOVER PLACE	ORACLE	AZ	85623
RICHARD & ZENIA FERA	32440 S PLOVER PLACE	ORACLE	AZ	85623
RAEONE GILSON	32450 S PLOVER PLACE	ORACLE	AZ	85623
STEPHEN & CAROL FIELDING	32462 S PLOVER PLACE	ORACLE	AZ	85623
VERNON NULK	32478 S PLOVER PLACE	ORACLE	AZ	85623
NANCY KOSTECKI	5433 AMBERWOOD LANE	MILWAUKEE	WI	53221
DONALD & DEBORRA LAWSON	32512 S PLOVER PLACE	ORACLE	AZ	85623
JAMES & JEANNE JENSEN	32761 S EGRET TRAIL	ORACLE	AZ	85623
JOHN & BENNETT HOBACK	32737 S EGRET TRAIL	ORACLE	AZ	85623
CHARLES & JACQUELINE POST	32713 S EGRET TRAIL	ORACLE	AZ	85623
ANTHONY & NANCY FLEMING	59966 E ANKOLE DRIVE	ORACLE	AZ	85623
THOMAS & MARGARET MERRICK	59976 E ANKOLE DRIVE	ORACLE	AZ	85623
STEVEN & LISA ROCERETO	796 SOMMERSET ROAD	WOODLAND	WA	98674
MIKE & VICKI DERRENBERGER	59990 E ANKOLE DRIVE	ORACLE	AZ	85623
JOSEPH & CHRISTINE GRAY	59998 E ANKOLE DRIVE	ORACLE	AZ	85623
JOHN & JAMIE CALHOUN	59999 E HORNBILL PLACE	ORACLE	AZ	85623
DANIEL & PATRICIA SMEJKAL	59981 E HORNBILL PLACE	ORACLE	AZ	85623
PAUL & PATRICIA NICHOLLS	59935 E HORNBILL PLACE	ORACLE	AZ	85623
WILLIAM WELLS	59905 E HORNBILL PLACE	ORACLE	AZ	85623
JEFFERY & JANET HANSEN	32627 S EGRET TRAIL	ORACLE	AZ	85623
JEFFERY & MARY MUCKEY	11340 BIRCH ROAD	ANCHORAGE	AK	99516
DEBORA WITTEN	32649 S EGRET TRAIL	ORACLE	AZ	85623
KATHLEEN LINTHWAITE	32661 S EGRET TRAIL	ORACLE	AZ	85623
LOWELL SLETTEN	32794 S EGRET TRAIL	ORACLE	AZ	85623
JOHN & CARLA MARQUARDT	32808 S EGRET TRAIL	ORACLE	AZ	85623
DOUGLAS & BARBARA MILLER	32826 S EGRET TRAIL	ORACLE	AZ	85623
FRANKLIN JASPER	32842 S EGRET TRAIL	ORACLE	AZ	85623
ROBERT & KATHLEEN LYON	5606 IRONS WAY	AMES	IA	50010
DANIEL & DEBORAH CARTER	32880 S EGRET TRAIL	ORACLE	AZ	85623
EUGENE & CAROL NAULT	32898 S EGRET TRAIL	ORACLE	AZ	85623

LIONEL & DEBRA CRENSHAW	32918 S EGRET TRAIL	ORACLE	AZ	85623
GEORGE BOUNELIS	32936 S EGRET TRAIL	ORACLE	AZ	85623
DANIEL & GRACE TAKETA	4436 GREENBRIER ROAD	LOMPOC	CA	93436
RICHARD & MARY JANE CARSTEN	32968 S EGRET TRAIL	ORACLE	AZ	85623
TIMOTHY & SUSAN DAVIESS	32779 S HYRAX LANE	ORACLE	AZ	85623
DONNA JAHNKE	32793 S HYRAX LANE	ORACLE	AZ	85623
DAVID ANDERSON	32807 S HYRAX LANE	ORACLE	AZ	85623
BRUCE & TERRI CRAWFORD	32821 S HYRAX LANE	ORACLE	AZ	85623
JOHN & NANCY SASSER	32833 S HYRAX LANE	ORACLE	AZ	85623
WILLIAM & MARGARET BEATTY	32847 S HYRAX LANE	ORACLE	AZ	85623
JON SWANSON & JAN STOREY	32863 S HYRAX LANE	ORACLE	AZ	85623
THOMAS & LANORA GALYA	32875 S HYRAX LANE	ORACLE	AZ	85623
PATRICIA & RONALD FLECK	32891 S HYRAX LANE	ORACLE	AZ	85623
LYNN & JANET BAKER	32905 S HYRAX LANE	ORACLE	AZ	85623
TOM & KATHLEEN MARSHALL	32782 S HYRAX LANE	ORACLE	AZ	85623
SANDRA THRELKELD	32796 S HYRAX LANE	ORACLE	AZ	85623
CRAIG & DEBORAH SCHREIBER	32816 S HYRAX LANE	ORACLE	AZ	85623
RONALD & CERITHA WILLEFORD	32840 S HYRAX LANE	ORACLE	AZ	85623
RONALD & RADONNA KNAPP	32862 S HYRAX LANE	ORACLE	AZ	85623
PAUL & PINKI FAUX	5920 SW SPRUCE AVENUE	BEAVERTON	OR	97005
WILLIAM & CARMEN ALLEN	32896 S HYRAX LANE	ORACLE	AZ	85623
CHARLES HARDER	32910 S HYRAX LANE	ORACLE	AZ	85623
PATRICK & CHERYL MURRAY	32922 S HYRAX LANE	ORACLE	AZ	85623
AMANDA KAMINSKI	59685 E SLIDER STREET	ORACLE	AZ	85623
MICHAEL & KATHLEEN PRITCHETT	59697 E SLIDER STREET	ORACLE	AZ	85623
CHRISTOPHER RYAN	59707 E SLIDER STREET	ORACLE	AZ	85623
JOHN & SUSAN BACKES	43568 STATE HIGHWAY 113	WAUBUN	MN	56589
PATRICIA CAVANAUGH	59719 E ANKOLE DRIVE	ORACLE	AZ	85623
ROBERT & GRACE GALLMANN	59697 E ANKOLE DRIVE	ORACLE	AZ	85623
GREGORY & THERESA PENDY	59667 E ANKOLE DRIVE	ORACLE	AZ	85623
THOMAS MANLEY	1117 OLD COLONY ROAD	LAKE FOREST	IL	60045
MICHAEL & KATHY HEALY	32803 S CATTLE TRAIL	ORACLE	AZ	85623
KEVIN KNOTT & MELANIE TIMBERLAKE	32841 S CATTLE TRAIL	ORACLE	AZ	85623
PHILIP & DEBORAH STREET	32865 S CATTLE TRAIL	ORACLE	AZ	85623
PETER GAISER	32883 S CATTLE TRAIL	ORACLE	AZ	85623
BRIAN & LAURINDA CROWE	32899 S CATTLE TRAIL	ORACLE	AZ	85623
CHARLES COXE & LIZA STRUB	32915 S CATTLE TRAIL	ORACLE	AZ	85623
CHARLES & DIANE THOMAS	32931 S CATTLE TRAIL	ORACLE	AZ	85623
EDWARD & TINA KRATZER	32949 S CATTLE TRAIL	ORACLE	AZ	85623
VICTOR & SHARON WALKER	32973 S CATTLE TRAIL	ORACLE	AZ	85623
THOMAS & MARY BERGIN	32999 S CATTLE TRAIL	ORACLE	AZ	85623
WILLIAM STEWART	33021 S CATTLE TRAIL	ORACLE	AZ	85623
WILLIAM & DEBRA NIXON	33037 S CATTLE TRAIL	ORACLE	AZ	85623
MARIAN BIANCHINI	33038 S CATTLE TRAIL	ORACLE	AZ	85623
FELIPE & DIANA POSADA	33018 S CATTLE TRAIL	ORACLE	AZ	85623
EDWARD & BARBARA SAFFRAN	33002 S CATTLE TRAIL	ORACLE	AZ	85623
EDWARD & RACHELLE VALDEZ	32968 S CATTLE TRAIL	ORACLE	AZ	85623
WRIGHT LIVING TRUST	32952 S CATTLE TRAIL	ORACLE	AZ	85623
JAMES & RANDY LINDLEY	430 DUNWOODY DRIVE	ORACLE	AZ	85623
GREG GESER	1656 W LAMBERT AVENUE	SISTERS	OR	97759
DARYL & DIANA DECARR	32898 S CATTLE TRAIL	ORACLE	AZ	85623
SHERRY & MICHAEL SMITH	32884 S CATTLE TRAIL	ORACLE	AZ	85623
JOSEPH & JENNIFER CAMPION	32866 S CATTLE TRAIL	ORACLE	AZ	85623
LLOYD & SHARON FARBER	32852 S CATTLE TRAIL	ORACLE	AZ	85623
ARLENE LAASE	7001 SEAVIEW AVENUE NW #160-430	SEATTLE	WA	98117
MICHAEL & SUSAN SCHUSTER	540 EASTWOOD COURT	EAGAN	MN	55123
DIANNA LEBRECHT	60892 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
EDGAR UPDEGRAFF	60872 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
RICHARD & FREDDIE MESSENGER	16028 SW HOLLAND LANE	SHERWOOD	OR	97140

LORI SAMPSON & MARTHA GASSER	60716 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
KIMBERLY PEARCE	60557 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
TINA LUTHER	627 PORTOFINO PLACE	OXNARD	CA	93035
DANIEL & VIRGINIA MULHERN	60656 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
MICHAEL & PATRICIA MEEHAN	60638 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
VALANCIUS TRUST	60620 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
RICHARD & MARY SNOWDEN	60600 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
THEODORE & CATHERINE WIERMAN	60584 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
JOHN & SHARON DAVID	647 G STREET	SALIDA	CO	81201
PAULA & CYNTHIA BERRY	60550 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
FRANCES KIRKHAM	60538 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
TIMOTHY & CATHERINE SULLIVAN	60520 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
LOUIS JOHNSON	60500 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
ROBERT & CAROLE ORTEGA	60480 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
DERRICK & CONSUELO MELHUIHSH	60462 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
PAUL HUGHES	60440 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
WAYNE & DEBORAH NORWOOD	60422 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
GARTH & JANICE OLSSON	60402 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
DAVID & LISA GEORGE	912 W KAIBAB DRIVE	CHANDLER	AZ	85248
EDWIN EICHERT	200 SOMERSET LANE	OCEAN CITY	NJ	8226
PRISCILLA KRAMER	60305 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
ROBERT & PATRICIA PERRY	60323 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
WILLIS WONG	60341 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
JANICE LEE	60475 SUNSET VIEW DRIVE	BEND	OR	97702
RONALD & SONDR A BARTOLUCCI	60393 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
JON & PILAR BORM	60427 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
CLIFFORD & MARIANNE FOWLER	60455 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
GREGORY & MARLENE JOLLY	60475 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
ROBERT & SANDRA SCHLAGER	60505 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
ROBERT & JODY STANTLEY	60531 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
ROBERT & KAY RATLIFF	60575 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
EDWIN & KATHLEEN HARRIS	60593 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
ZANN WILSON	60611 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
DAVID & LINA BOTT	60629 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
JEFFERSON & SUSAN PHARR	60645 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
JAMES GRADY	14197 RESERVE PLACE	BROOMFIELD	CO	80023
DANIEL & KATHRYN WATSON	60681 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
WILLIAM & JANE LOCKETT	31875 S GULCH PASS ROAD	ORACLE	AZ	85623
BRENDON & SHANNON HIRSCHBERG	31855 S GULCH PASS ROAD	ORACLE	AZ	85623
JOHN STARK & BONNIE DELONG-STARK	31835 S GULCH PASS ROAD	ORACLE	AZ	85623
EVANS SPYROS	31813 S GULCH PASS ROAD	ORACLE	AZ	85623
CHARLIE & DONNA SCOTT	31793 S GULCH PASS ROAD	ORACLE	AZ	85623
EUGENE & LORETTA ROUND	31773 S GULCH PASS ROAD	ORACLE	AZ	85623
STEVE & JUDITH ANDRASIC	31751 S GULCH PASS ROAD	ORACLE	AZ	85623
ERIC & SUZANNE HANSON	31733 S GULCH PASS ROAD	ORACLE	AZ	85623
P & J FANCHER	31713 S GULCH PASS ROAD	ORACLE	AZ	85623
STEPHEN & GISELA ORDAHL	31691 S GULCH PASS ROAD	ORACLE	AZ	85623
EDGARS KUPCIS & LINDA INHELDER	31671 S GULCH PASS ROAD	ORACLE	AZ	85623
JOHN & KAREN GRESSINGH	31651 S GULCH PASS ROAD	ORACLE	AZ	85623
BETH BERZON & JOHN HUARD	60384 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
MARTIN & PATRICIA VONK	438 TIMBERLAKE DRIVE E	HOLLAND	MI	49424
ROBERT & TERESE DENSMORE	60360 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
HENRY & NANA KIRCHNER	60352 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
JAMES & CATHY KAUFFMAN	60342 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
GARY & DENISE BOYDSTUN	60332 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
CHARLES & MARTHA REISER	60304 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
MARCIA MCCHRYS TAL	60278 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
GARY & DEBORAH KEENEY	60260 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
JAMES & BEVERLY HINTON	60242 E ARROYO VISTA DRIVE	ORACLE	AZ	85623

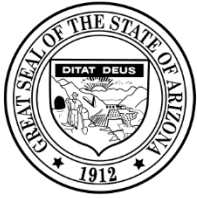
CYNTHIA HINDS	569 GILPIN STREET	DENVER	CO	80218
JOHN HESS	60204 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
SCOTT & JANICE LOWRY	60184 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
BERYL READDY	60160 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
CAMERON & JENNIFER DOWNEY	514 ADRIANA PLACE	AUBURN	CA	95603
SCOTT & PAMELA SAXON	60124 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
MARILYN HEASLEY	2820 APPALOOSA WAY	RICHLAND	WA	99352
MARK & SANDRA HOLDEN	60080 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
DIANE SATTEN	60060 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
WILLIAM & JUDITH HENDERSON	60044 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
RICHARD & BEVERLY HANSON	60028 E ARROYO VISTA DRIVE	ORACLE	AZ	85623
JOHN & DALE FARLAND	32094 S AGARITA DRIVE	ORACLE	AZ	85623
KEN ROBINSON & DEENA REAM-ROBINSON	32078 S AGARITA DRIVE	ORACLE	AZ	85623
ERIC & RAINIE WARNER	60265 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
BRIAN & CYNTHIA GROVER	60241 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
ROBERT & LORRETTA JOHNSON	60219 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
BETTY THOMAS	9700 EDMONDSON DRIVE	DENTON	TX	76207
CHRISTOPHER JERMAN	60189 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
WETZEL & GEORGINE HURST	3430 E SUNRISE DRIVE STE 200	TUCSON	AZ	85718
TIMOTHY & DEBORAH MCCAULEY	60157 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
STEPHEN & SHARON GROTH	60137 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
ALNESS FAMILY TRUST	2735 N CAMINO VALLE VERDE	TUCSON	AZ	85715
DOUGLAS & COY RINKE	60097 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
WILLIAM & SANDRA PAULIN	60077 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
MICHAEL & MARION EWING	60059 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
CHARLES & ALYCE GROVER	3916 N POTSDAM AVENUE #1534	SIoux FALLS	SD	57104
MICHAEL & MARY ELLEN SMITH	60019 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
HOWARD & ADENE ZELKIN	32241 S SERVAL DRIVE	ORACLE	AZ	85623
JAMES & DOROTHY TAYLOR	32261 S SERVAL DRIVE	ORACLE	AZ	85623
JAMES & ARLENE KARP	32289 S SERVAL DRIVE	ORACLE	AZ	85623
ROBERT STANLEY	32240 S SERVAL DRIVE	ORACLE	AZ	85623
WILLIAM & CONNIE KLAPPENBACH	1826 INTERLACHEN ALCOVE	WOODBURY	MN	55125
SAM & ARDITH ROSSI	32280 S SERVAL DRIVE	ORACLE	AZ	85623
CHRISTINE UPDEGRAFF	32300 S SERVAL DRIVE	ORACLE	AZ	85623
RONALD & PHYLLIS FRENCH	32366 S EGRET TRAIL	ORACLE	AZ	85623
JOHN & SHARON HAMMOND	32374 S EGRET TRAIL	ORACLE	AZ	85623
KATHI & LARRY LAUTT	32382 S EGRET TRAIL	ORACLE	AZ	85623
MICHAEL & DIANA SHAW	5204 N BENNETT STREET APT 605	RUSTON	WA	98407
AUGUST & CAROL EPINA	32408 S EGRET TRAIL	ORACLE	AZ	85623
PHILIP BARISH	32426 S EGRET TRAIL	ORACLE	AZ	85623
JOHN MAKAR	503 CREEK VALLEY LANE	ROCKVILLE	MD	20850
JOHN & WILMA HOPKINS	32462 S EGRET TRAIL	ORACLE	AZ	85623
ROSS & FLORENCE MESSER	32480 S EGRET TRAIL	ORACLE	AZ	85623
LOUISE TYO	32500 S EGRET TRAIL	ORACLE	AZ	85623
DAVID & MARGARET YONKOVICH	32530 S EGRET TRAIL	ORACLE	AZ	85623
JOHN CUSTY	32552 S EGRET TRAIL	ORACLE	AZ	85623
KEITH & CORINE STRUDIVANT	32576 S EGRET TRAIL	ORACLE	AZ	85623
PAUL & JEAN STITCHA	32598 S EGRET TRAIL	ORACLE	AZ	85623
RUSS & TERESA HARDY	32622 S EGRET TRAIL	ORACLE	AZ	85623
DENIS & CYNTHIA HECK	32644 S EGRET TRAIL	ORACLE	AZ	85623
ROBERT & CAROLE ERICKSEN	32668 S EGRET TRAIL	ORACLE	AZ	85623
DENA YOCOM	32690 S EGRET TRAIL	ORACLE	AZ	85623
WILLIAM & DARLENE YOCUM	32714 S EGRET TRAIL	ORACLE	AZ	85623
JOSEPH & ROSEMARY DOUGLAS	32738 S EGRET TRAIL	ORACLE	AZ	85623
GARY & LOUISE BELL	32762 S EGRET TRAIL	ORACLE	AZ	85623
STEPHEN & SANDRA FREDRICKSON	59808 E ANKOLE DRIVE	ORACLE	AZ	85623
TISHA ATCHLEY	59782 E ANKOLE DRIVE	ORACLE	AZ	85623
BRUCE & ADAIR KELLY	59756 E ANKOLE DRIVE	ORACLE	AZ	85623
LYLE & CHERYL LUTTON	59732 E ANKOLE DRIVE	ORACLE	AZ	85623

JOSEPH & LINDA SENTIVANAC	59710 E ANKOLE DRIVE	ORACLE	AZ	85623
JOHN & DARLENE PATTERSON	59688 E ANKOLE DRIVE	ORACLE	AZ	85623
GARY & ELIZABETH TERRELL	59981 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
THOMAS & PATRICIA GRIGGS	59957 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
JOHN ARNOLD	59927 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
MICHAEL & LISA MOFFATT	59891 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
MARTIN & ALICE LENZINI	59869 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
RALPH MCLAUGHLIN	59853 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
PHILLIP & LYNNE WESCOTT	59837 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
DONALD & LINDA THOMSON	59819 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
GEORGE & DIANE SANDLIN	59801 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
MICHAEL UTSLER	59779 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
WM & JEAN PARFET	59760 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
CAMILLE & KENNETH HOVMILLER	59790 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
JAMES & JUDITH SMITH	59814 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
TERRELL & PHYLLIS PETTJOHN	32186 S HANCOCK DRIVE	ORACLE	AZ	85623
MICHAEL & ELLEN SOSIN	32156 S HANCOCK DRIVE	ORACLE	AZ	85623
SCHLECKSER LIVING TRUST	32132 S HANCOCK DRIVE	ORACLE	AZ	85623
GARY & MARY HOOVER	32108 S HANCOCK DRIVE	ORACLE	AZ	85623
KAREN WALSER	32084 S HANCOCK DRIVE	ORACLE	AZ	85623
BRIAN & DENISE BAKER	32048 S HANCOCK DRIVE	ORACLE	AZ	85623
LUTZ & TOVE PAPE	32022 S HANCOCK DRIVE	ORACLE	AZ	85623
STEPHEN & MARY SCHNECK	31998 S HANCOCK DRIVE	ORACLE	AZ	85623
RAUL MALDONADO & NESTOR MOYANO	59741 E ARROYO BELLO DRIVE	ORACLE	AZ	85623
MICHELLE CARTER	59705 E ARROYO BELLO DRIVE	ORACLE	AZ	85623
ALAN & REBECCA CALL	59685 E ARROYO BELLO DRIVE	ORACLE	AZ	85623
JANICE OTT	59663 E ARROYO BELLO DRIVE	ORACLE	AZ	85623
SHEILA MUEHLING	59643 E ARROYO BELLO DRIVE	ORACLE	AZ	85623
JERALD & LINDA CHASE	59615 E ARROYO BELLO DRIVE	ORACLE	AZ	85623
PHILLIP & BETH COOPER	59585 E ARROYO BELLO DRIVE	ORACLE	AZ	85623
ROBERT & NANCY THORNTON	1229 AHLRICH AVENUE	ENCINITAS	CA	92024
JAMES BITTLE	32379 S CATTLE TRAIL	ORACLE	AZ	85623
MICHAEL & MIYUKI MCDONAGH	32515 S CATTLE TRAIL	ORACLE	AZ	85623
LOUIS & ELIZABETH	32541 S CATTLE TRAIL	ORACLE	AZ	85623
DAVID & ROBIN MUCK	32653 S CATTLE TRAIL	ORACLE	AZ	85623
ARNOLD & ZITA WRIGHT	32727 S CATTLE TRAIL	ORACLE	AZ	85623
DANIEL & PAMELA SIEG	32754 S CATTLE TRAIL	ORACLE	AZ	85623
DENISE SMITH	32732 S CATTLE TRAIL	ORACLE	AZ	85623
DONALD & MARY MANTZ	32710 S CATTLE TRAIL	ORACLE	AZ	85623
MICHAEL CONNOR	32692 S CATTLE TRAIL	ORACLE	AZ	85623
JAMES & MILDRED HARVEY	32672 S CATTLE TRAIL	ORACLE	AZ	85623
PATRICIO & MICHELE REYES	32650 S CATTLE TRAIL	ORACLE	AZ	85623
JOHN & BEVERLY HUFFMAN	32624 S CATTLE TRAIL	ORACLE	AZ	85623
WILLIAM & NORMA DUBOIS	61559 TAM MCARTHUR LOOP	BEND	OR	97702
JEFFERY & ERIN PRICCO	32546 S CATTLE TRAIL	ORACLE	AZ	85623
MARC & KATRINA LUNDGREN	32528 S CATTLE TRAIL	ORACLE	AZ	85623
RONALD SMOTHERMON	6908 SW MAURY PARK ROAD	VASHON	WA	98070
DAVID & LIZA FIRST	32440 S CATTLE TRAIL	ORACLE	AZ	85623
DAVID & PATRICIA NELSON	32416 S CATTLE TRAIL	ORACLE	AZ	85623
HAZEN & CINDY KREIS	32394 S CATTLE TRAIL	ORACLE	AZ	85623
EDWARD & FRANCES SAMAHA	32376 S CATTLE TRAIL	ORACLE	AZ	85623
RONALD & JANICE JUNKIN	32352 S CATTLE TRAIL	ORACLE	AZ	85623
DAVID & PAMELA ARTIBEY	32334 S CATTLE TRAIL	ORACLE	AZ	85623
GARY & PATRICIA KORSMEIER	32314 S CATTLE TRAIL	ORACLE	AZ	85623
BRUCE & DEBORAH RIEDERER	32274 S CATTLE TRAIL	ORACLE	AZ	85623
MARK & PAMELA WHIMS	32254 S CATTLE TRAIL	ORACLE	AZ	85623
RONALD & KIMBERLY BARTNIKOWSKI	32232 S CATTLE TRAIL	ORACLE	AZ	85623
PATRICIA SCHOFIELD	32210 S CATTLE TRAIL	ORACLE	AZ	85623
DARLA CARLSON	181 SHELLY MARIE CIRCLE	ANCHORAGE	AK	99515

EDWARD & LINDA STERMACH	32166 S CATTLE TRAIL	ORACLE	AZ	85623
BLAIR CORDER	32142 S CATTLE TRAIL	ORACLE	AZ	85623
JAMES LUBACH	32116 S CATTLE TRAIL	ORACLE	AZ	85623
KRISTI & KEITH MILLER	32094 S CATTLE TRAIL	ORACLE	AZ	85623
CLARENCE HINDMAN & JUDY BECKNER-HINDMAN	32064 S CATTLE TRAIL	ORACLE	AZ	85623
LARRY & MEDLINDA HAWKINS	59932 E ARROYO BELLO DRIVE	ORACLE	AZ	85623
JOHN & JAN OHMAN	59916 E ARROYO BELLO DRIVE	ORACLE	AZ	85623
STEPHEN & NANCY HOPKINS	59900 E ARROYO BELLO DRIVE	ORACLE	AZ	85623
GARY & SUSAN ENGBRETSON	59880 E ARROYO BELLO DRIVE	ORACLE	AZ	85623
LYNN FIDLER	59860 E ARROYO BELLO DRIVE	ORACLE	AZ	85623
RANDY & MARGARET CRANE	59840 E ARROYO BELLO DRIVE	ORACLE	AZ	85623
JEFFREY & NEAL TYNAN	59822 E ARROYO BELLO DRIVE	ORACLE	AZ	85623
ROBERT & KAREN LONG	59802 E ARROYO BELLO DRIVE	ORACLE	AZ	85623
EDWARD & STERLYN ROBERTSON	59782 E ARROYO BELLO DRIVE	ORACLE	AZ	85623
KEVIN & SHEREE MCCARTHY	59764 E ARROYO BELLO DRIVE	ORACLE	AZ	85623
KEVIN & PATRICIA MUNLEY	59744 E ARROYO BELLO DRIVE	ORACLE	AZ	85623
PHILIP & KAREN SANDERMAN	59640 E ARROYO BELLO DRIVE	ORACLE	AZ	85623
TIMOTHY & DIANE CONNOLLY	59582 E ARROYO BELLO DRIVE	ORACLE	AZ	85623
THOMAS COTHRAN	59566 E ARROYO BELLO DRIVE	ORACLE	AZ	85623
LESTER & JILLANNE BROWN	31869 S BIGHORN DRIVE	ORACLE	AZ	85623
CONSTANCE GARRISON	31887 S BIGHORN DRIVE	ORACLE	AZ	85623
GREGORY & PATRICIA RULON	31907 S BIGHORN DRIVE	ORACLE	AZ	85623
THOMAS & MORGAN SQUIRES	31923 S BIGHORN DRIVE	ORACLE	AZ	85623
JOHN & CAROLYN BLAKE	31941 S BIGHORN DRIVE	ORACLE	AZ	85623
CLIFFORD HALL	31959 S BIGHORN DRIVE	ORACLE	AZ	85623
MICHAEL & ANN BURKART	31977 S BIGHORN DRIVE	ORACLE	AZ	85623
STEPHEN & CATHERINE LAIR	32001 S BIGHORN DRIVE	ORACLE	AZ	85623
STEPHEN & LINDA LEBRECHT	32017 S BIGHORN DRIVE	ORACLE	AZ	85623
ROGER & REBECCA MCHUGH	32035 S BIGHORN DRIVE	ORACLE	AZ	85623
RONALD & CELESTES STENHOUSE	32053 S BIGHORN DRIVE	ORACLE	AZ	85623
RONALD MACHADO	32069 S BIGHORN DRIVE	ORACLE	AZ	85623
THOMAS & RUTH MOORE	32085 S BIGHORN DRIVE	ORACLE	AZ	85623
MICHAEL & BONNIE ROACH	32097 S BIGHORN DRIVE	ORACLE	AZ	85623
LAWRENCE & MARY TIPTON	60428 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
RICHARD & BRIDGET BONNER	60404 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
MARK & JEAN MORGAN	60382 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
KENNETH & LUPE COOK	60362 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
SUZANNE SHIFF	60344 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
KENNETH KRONEN & RITA JAWORT-KRONEN	60326 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
CHRISTOPHER & MARCIA MAITIN	60308 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
MYRON & GERALDINE KOEN	60290 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
SONIA LEE	60272 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
STEVEN & TERI BAER	60254 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
JOHN & SUSAN LAND	60236 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
MICHAEL & PAMELA PAQUE	60218 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
MARK & CATHERINE JOHNSON	60200 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
ALASTAIR & HELGA STONE	60176 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
RICHARD & LISA WITHAM	60154 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
KERSTIN SEIFERT	60134 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
BILL & DEDE JONES	60114 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
JAMES & SUSAN COOK	31954 S MISTY BASIN ROAD	ORACLE	AZ	85623
STEVEN & MARY WRIGHT	31934 S MISTY BASIN ROAD	ORACLE	AZ	85623
HUGH & LINDA PARKER	31914 S MISTY BASIN ROAD	ORACLE	AZ	85623
GREGORY & DEBRA BYRNE	31894 S MISTY BASIN ROAD	ORACLE	AZ	85623
RUDY & TINA DOMINGUEZ	31874 S MISTY BASIN ROAD	ORACLE	AZ	85623
ROBERT & MICHAELA GIBSON	2980 E 4TH AVENUE	DENVER	CO	80206
RAYMOND & OLIVIA HAHN	31834 S MISTY BASIN ROAD	ORACLE	AZ	85623
JOSEPH & SHARON MACHER	31816 S MISTY BASIN ROAD	ORACLE	AZ	85623
JOSEPHINE ZARA	31796 S MISTY BASIN ROAD	ORACLE	AZ	85623

BRENDA ARMENIA	31776 S MISTY BASIN ROAD	ORACLE	AZ	85623
STUART & MARCIA GRANT	31758 S MISTY BASIN ROAD	ORACLE	AZ	85623
JEFF SILVER	31738 S MISTY BASIN ROAD	ORACLE	AZ	85623
GARRY & EMMA KNOWLING	31690 S GULCH PASS ROAD	ORACLE	AZ	85623
JOHN & LESLIE GORDON	31670 S GULCH PASS ROAD	ORACLE	AZ	85623
ROBERT & SANDRA KUCSMAS	31650 S GULCH PASS ROAD	ORACLE	AZ	85623
OLIVER RENNER & JANE MCKNIGHT	31953 S MISTY BASIN ROAD	ORACLE	AZ	85623
ROBERT & JOANN PRITCHARD	31915 S MISTY BASIN ROAD	ORACLE	AZ	85623
JOSEPH & SHERYL RUST	31883 S MISTY BASIN ROAD	ORACLE	AZ	85623
DAVID & EDITH KELLOGG	31865 S MISTY BASIN ROAD	ORACLE	AZ	85623
TIMOTHY & MAUREEN FOLEY	31843 S MISTY BASIN ROAD	ORACLE	AZ	85623
MICHAEL & LORI EBY	31825 S MISTY BASIN ROAD	ORACLE	AZ	85623
JANICE MARTIN	31805 S MISTY BASIN ROAD	ORACLE	AZ	85623
LAWRENCE & MARJORIE JACOX	31779 S MISTY BASIN ROAD	ORACLE	AZ	85623
TERRY & JANICE MIHORA	31739 S MISTY BASIN ROAD	ORACLE	AZ	85623
STEVEN PARKHURST	31816 S GULCH PASS ROAD	ORACLE	AZ	85623
HENRY & LINDA WOLOWICZ	31842 S GULCH PASS ROAD	ORACLE	AZ	85623
GEORGE & MELODY VAN ESS	60674 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
DOUGLAS PEARCE	60632 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
RONALD & THERESA FRASER	60614 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
MICHAEL & MARY REDGRAVE	60594 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
FRED & CHERYL JAVID	60572 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
ROBERT LIPIN	614 NASHUA STREET	MILFORD	NH	03055
DUANE & JAN BOYETT	32096 S BIGHORN DRIVE	ORACLE	AZ	85623
ERNEST & PRISCILLA WOLF	32066 S BIGHORN DRIVE	ORACLE	AZ	85623
KENNETH & REBECCA CRENSHAW	32050 S BIGHORN DRIVE	ORACLE	AZ	85623
GARY & GEORGIA GONZALES	32034 S BIGHORN DRIVE	ORACLE	AZ	85623
RICHARD & GRACE CALDWELL	59997 E AMUR LANE	ORACLE	AZ	85623
ROBERT & DIANNE JOHNS	59979 E AMUR LANE	ORACLE	AZ	85623
GRANT & KAREN SWANSON	59961 E AMUR LANE	ORACLE	AZ	85623
PAUL & DIANE FULLER	59943 E AMUR LANE	ORACLE	AZ	85623
ROBERT & ULRIKE LARTEY	59925 E AMUR LANE	ORACLE	AZ	85623
LARRY & TERRI STEINBERG	59907 E AMUR LANE	ORACLE	AZ	85623
MATTHEW DOUGHERTY	59887 E AMUR LANE	ORACLE	AZ	85623
GERALD & BARBARA MARTIN	59867 E AMUR LANE	ORACLE	AZ	85623
HARLON & MARY SCHLACHTER	59845 E AMUR LANE	ORACLE	AZ	85623
RICHARD & GLORIA IHRIG	59819 E AMUR LANE	ORACLE	AZ	85623
RICHARD & CHERI ALFREY	32119 S HANCOCK DRIVE	ORACLE	AZ	85623
DAVID & JEAN EIDT	32141 S HANCOCK DRIVE	ORACLE	AZ	85623
ROBERT & KAREN DERDZINSKE	32185 S HANCOCK DRIVE	ORACLE	AZ	85623
ROBERT HILLS	32211 S HANCOCK DRIVE	ORACLE	AZ	85623
ORO VALLEY CHURCH OF THE NAZARENE	500 W CALLE CONCORDIA	ORO VALLEY	AZ	85704
JOHN & JOYCE DEYOUNG	60010 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
ANTHONY & SUSAN WELLS	59986 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
GERALD & DIANA STRANGIO	59962 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
STANLEY FINKELSTEIN	59938 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
CHARLES & CYNTHIA CANNON	59914 E ARROYO GRANDE DRIVE	ORACLE	AZ	85623
JERRY & WONONA DAVIS	31870 S BIGHORN DRIVE	ORACLE	AZ	85623
JEFFREY & BAMBI GANSZ	13817 2ND AVENUE SW	BURIEN	WA	98166
ROBERT LAMAR & SUSAN HASTINGS	31914 S BIGHORN DRIVE	ORACLE	AZ	85623
JAMES MCMILLAN	31932 S BIGHORN DRIVE	ORACLE	AZ	85623
KENNETH LEVITT	31950 S BIGHORN DRIVE	ORACLE	AZ	85623
JOHN & EMAJEAN O BRIAN	59996 E AMUR LANE	ORACLE	AZ	85623
CHARLES & PRISCILLA MEIER	59978 E AMUR LANE	ORACLE	AZ	85623
STEPHEN & VICKIE ATKINSON	59960 E AMUR LANE	ORACLE	AZ	85623
THOMAS & CAROL ANDREWS	59928 E AMUR LANE	ORACLE	AZ	85623
THOMAS & MARIA MCDEMOTT	59894 E AMUR LANE	ORACLE	AZ	85623
ROBERT & TERESA TARLETON	59868 E AMUR LANE	ORACLE	AZ	85623
VICTOR & JEANNE NORDSTROM	59846 E AMUR LANE	ORACLE	AZ	85623

CORRESPONDANCE



Douglas A. Ducey
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



Misael Cabrera
Director

December 17, 2021
REF: HWP-EX3466

Mr. Steven Holland
Chief Risk Officer
University of Arizona
PO Box 210300
Tucson, Arizona 85721

Re: Request for Additional Information; Administratively Incomplete Application for Hazardous Waste Permit; University of Arizona, Page-Trowbridge Ranch Landfill; EPA ID No. AZD 980 665 814; Place ID No. 3166; License Time Frames No. 92382.

Dear Mr. Holland:

The Arizona Department of Environmental Quality (ADEQ), Hazardous Waste Permits and Support Unit, received the above-referenced application and check # 91031 for \$20,000.00 on December 15, 2021. Review of this application is subject to the requirements of the licensing time frames (LTF) statute under Arizona Revised Statutes (A.R.S.) § 41-1072 through § 41-1079 and the LTF rules under Arizona Administrative Code (A.A.C.) R18-1-501 through R18-1-525. Per A.A.C. R18-8-270(G)(1), the application will be processed at an hourly rate of \$136.00 per hour; the maximum fee for this application will not exceed \$400,000.00.

Per A.R.S. § 41-1074, ADEQ considered the application to be administratively incomplete on December 17, 2021. This notice suspends the time frame for the review of your application as of the date of this Notice. To resume the time frame, UA must submit the missing information to correct the deficiencies.

Please submit the missing items electronically by January 5, 2021. Enclosed is a copy of the administrative completeness review checklist indicating which items are deemed missing from the application. A summary of the deficiencies is also provided within this letter.

Summary of Administrative Deficiencies:

1. **Character Background Reference Forms** were not attached to the application. Please include character background reference forms for all signatories and key employees.
2. **Part A Deficiencies:**
 - a. Item 7 (NAICS Code) has been left blank. You must include a primary NAICS code for the site or operator of the site.
 - b. Item 9B is not filled out beyond the full name of the Legal Operator.
 - c. Item 10A is incorrectly filled out for the site.
 - d. Items 13 through 15 have been left blank. You must indicate a response to these questions.
 - e. Item 17 has been left blank. Please indicate the appropriate response.

Main Office

1110 West Washington Street • Phoenix, AZ 85007
(602) 771-2300

Southern Regional Office

400 West Congress Street • Suite 433 • Tucson, AZ 85701
(520) 628-6733

www.azdeq.gov

printed on recycled paper

- f. The Part A Certification section was not signed by either the owner or the operator. This needs to be signed by both the owner and operator of the site. In place of the owner signature, you may attach a letter delegating signatory authority.
3. **Groundwater Monitoring Appendix B Attachment D** was not included in the electronic copy.
4. **Contingency Plan – Arrangement with Local Authorities** was not attached to this application. The application states that these arrangement letters are in Appendix E, Exhibit 7, but only the cover page was found in both the original and electronic versions of this application.
5. **Part B Certification** does not include the owner's signature or a letter delegating signatory authority.

If you have any questions, please feel free to give me a call at (602) 771-8727 or contact me via email at orman.gav@azdeq.gov.

Sincerely,



Gav Orman, Environmental Engineering Specialist
Hazardous Waste Permits & Support Unit
Waste Programs Division

ec: UA Representatives (Jeff Christensen, Miguel Delgado)
Wood Representatives (Douglas Fisher, Julie Hamilton)
Facility File
Jessica Kohls, HWPSU Supervisor



Hazardous Waste Treatment, Storage, and Disposal Facility Permit Administrative Completeness Review Checklist

Checklist Instruction

This checklist is provided as a guideline for ADEQ staff in performing administrative completeness reviews and to the applicant on what information ADEQ will need to administratively review a TSDF permit application. This checklist is designed to ensure the applicant provides information necessary to review the application.

Applicant: UofA – Page-Trowbridge Ranch Landfill	LTF: 92382			
Reviewer: Gav Orman	Date: 12/17/2021			
Item	Comments	Y	N	N/A
APPLICATION COMPONENTS				
One complete original and an electronic version of an application consisting of Parts A and B.		x		
Character Background Reference forms			x	
Post-Closure Permit Application Checklist		x		
Certification of compliance with the U.S. EPA RCRA expanded public participation rule				N/A
The applicant must have a U.S. EPA ID Number assigned for the facility at the time of submittal	AZD980665814	x		
An initial application submittal fee, \$20,000.00 for a new or renewal of an existing TSDF	#91031	x		
SECTION A. PART A GENERAL INFORMATION REQUIREMENTS				
Site name	“Page-Trowbridge Ranch” in Part A; different naming throughout docs. To be aware of	x		
EPA ID number	AZD980665814	x		
Site location information		x		
Site contact and mailing address		x		
Legal owner and operator of the Site	Not completely filled out		x	
Type of regulated waste activity	Incorrectly filled out: PTRL is a VSQG with episodic generations and #7 is inaccurate for the site.		x	
Description of hazardous waste		x		
Notification of hazardous secondary material (HSM) activity		x		
Certification, signed by owner and operator	Part A form is NOT SIGNED – certification letter was attached, but this form needs signature as well.		x	
Facility permit contact		x		
Permit contact and operator mailing address and telephone number		x		
Facility existence date		x		

Applicant: UofA – Page-Trowbridge Ranch Landfill	LTF: 92382			
Reviewer: Gav Orman	Date: 12/17/2021			
Item	Comments	Y	N	N/A
Listing of all other environmental permits received		x		
Nature of business		x		
Process codes and design capacities	NAICS code for facility is missing in Part A – you need to have 1 NAICS code		x	
Map		x		
Facility drawing		x		
Photographs		x		
SECTION B. FACILITY DESCRIPTION				
General Description		x		
Flood plain		x		
Surrounding land use		x		
Surface waters				N/A
Wind rose		x		
Map orientation		x		
Legal boundaries		x		
Access control		x		
Injection and withdrawal wells	Not updated since 2012 for off-site wells.	x		
Buildings and other structures		x		
Drainage and flood control		x		
Location of SWMUs		x		
Groundwater		x		
Seismic requirements				N/A
Traffic patterns				N/A
SECTION C. WASTE CHARACTERISTICS				
Waste Analysis Plan	List of chemicals previously disposed in landfill provided.			N/A
SECTION D. PROCESS INFORMATION				
Containers				N/A
Management Practices				N/A
Secondary containment				N/A
Run-on & run-off control				N/A
Tanks				N/A
Description and capacity				N/A
Certified Integrity assessment				N/A
Secondary containment				N/A
Leak detection requirements				N/A
Other Waste Units				N/A
SECTION E. GROUNDWATER MONITORING				
Groundwater monitoring exemption pursuant to 270.14(c)				N/A
Groundwater monitoring plan, if not exempt		x		
Hydrogeological information		x		
Well location, construction details		x		

Applicant: UofA – Page-Trowbridge Ranch Landfill	LTF: 92382			
Reviewer: Gav Orman	Date: 12/17/2021			
Item	Comments	Y	N	N/A
Sampling and analysis plan (SAP)	Appendix B Attachment D is not provided in e-copy.		x	
Groundwater monitoring program (GWMP)		x		
Statistical procedures		x		
SECTION F. PROCEDURES TO PREVENT HAZARDS				
Security procedures		x		
Inspection requirements for each containment system		x		
Management of incompatible Waste				N/A
Management of ignitable waste				N/A
Fire protection				N/A
SECTION G. CONTINGENCY PLAN				
Contingency plan coordinators	Will need to submit C1 mod to change emerg. Coordinators after change.	x		
Emergency actions		x		
Emergency equipment		x		
Arrangement with local authorities	Appendix E Exhibit 7 was not attached.		x	
Evacuation plan		x		
Reporting and recordkeeping procedures		x		
SECTION H. PERSONNEL TRAINING				
Training program outline		x		
Description of training		x		
SECTION I. CLOSURE/POST-CLOSURE PLANS AND FINANCIAL REQUIREMENTS				
Closure plans				N/A
Post-closure Plan		x		
Required notices		x		
Cost estimates for closure and post-closure				N/A
Financial assurance for closure and post-closure				N/A
Liability requirements				N/A
SECTION J. SOLID WASTE MANAGEMENT UNITS				
Description of SWMUs		x		
Description of releases		x		
SECTION K. OTHER FEDERAL LAWS				
Demonstrate compliance with requirements of other applicable Federal laws		x		
SECTION L. PART B CERTIFICATION				
Part B Certification	Need owner signature or letter from owner delegating authority		x	
SECTION M. SUBPART AA PROCESS VENTS				
Subpart AA applicability				N/A
Design, operation, monitoring, and inspection				N/A
SECTION N. SUBPART BB EQUIPMENT LEAKS				
Subpart BB applicability				N/A
Equipment description				N/A

Applicant: UofA – Page-Trowbridge Ranch Landfill	LTF: 92382			
Reviewer: Gav Orman	Date: 12/17/2021			
Item	Comments	Y	N	N/A
Monitoring program, recordkeeping and reporting				N/A
SECTION O. SUBPART CC AIR EMISSION STANDARDS				
Subpart CC applicability				N/A
List of units that are exempt				N/A
Tanks, surface impoundments, or containers requirements				N/A
Implementation plan				N/A
Monitoring plan				N/A
Reporting and recordkeeping requirements				N/A
SECTION P. EXPOSURE INFORMATION				
Only for surface impoundments and land disposal units		x		
SECTION Q. SUBPART X MISCELLANEOUS UNITS				
Subpart X applicability				N/A
Environmental performance standards				N/A
Monitoring, inspection, and reporting				N/A
SECTION R. CORRECTIVE ACTION				
Corrective Actions	SVE system was implemented as a corrective action – remedy complete and O&M manual included.			N/A



Gavrielle Orman <orman.gav@azdeq.gov>

Page-Trowbridge Ranch Landfill EPA ID No. AZD 980 665 8141 message

Hamilton, Julie <julie.hamilton@woodplc.com>

Wed, Jan 5, 2022 at 10:58 AM

To: "orman.gav@azdeq.gov" <orman.gav@azdeq.gov>

Cc: "Holland, Steven C - (sholland)" <sholland@arizona.edu>, "Delgado, Miguel - (mdelgado1)" <mdelgado1@arizona.edu>, "Tom, Heidi" <heidi.tom@woodplc.com>, "Fisher, Douglas" <douglas.fisher@woodplc.com>

Gav,

University of Arizona presents herein their response to your December 17, 2022 Request for Additional Information; Administratively Incomplete Application for Hazardous Permit; University of Arizona, Page-Trowbridge Ranch Landfill; EPA ID No. AZD 980 665 814; Place ID No. 3166; License Time Frames No. 92382. *(Attached)*

1. Character Background Reference Forms were not attached to the application. Please include character background reference forms for all signatories and key employees.

Background Reference Forms have been sent to ADEQ under separate cover.

2. Part A Deficiencies:

Revised Part A Application addressing items a through f below is attached. The revised Part A will also be added to the OneDrive link.

a. Item 7 (NAICS Code) has been left blank. You must include a primary NAICS code for the site or operator of the site. *This has been added.*

b. Item 9B is not filled out beyond the full name of the Legal Operator. *This has been added.*

c. Item 10A is incorrectly filled out for the site. *This has been corrected.*

d. Items 13 through 15 have been left blank. You must indicate a response to these questions. *This has been added.*

e. Item 17 has been left blank. Please indicate the appropriate response. *A response has been added.*

f. The Part A Certification section was not signed by either the owner or the operator. This needs to be signed by both the owner and operator of the site. In place of the owner signature, you may attach a letter delegating signatory authority. *Signatures have been added.*

3. Groundwater Monitoring Appendix B Attachment D was not included in the electronic copy.

The Post-Closure Period Expanded Groundwater Detection Monitoring Plan (Appendix B of Application) has been modified to Include the Quality Assurance Project Plan as an Attachment. The QAPP also includes updated quality plans from Turner Labs and Air Toxics. The QAPP is attached. The complete Appendix B is too large to email and will be added to the OneDrive link.

4. Contingency Plan – Arrangement with Local Authorities was not attached to this application. The application states that these arrangement letters are in Appendix E, Exhibit 7, but only the cover page was found in both the original and electronic versions of this application.

Exhibit 7 which is part of Appendix E is attached. The complete Appendix E will be added to the OneDrive link.

5. Part B Certification does not include the owner's signature or a letter delegating signatory authority.

Revised Certification is in progress, will be forwarded to ADEQ when it is available.

Please let us know if you have any additional questions. Please confirm receipt of this response.

Thanks, Julie

Julianne Hamilton, RG, PMP

Government Sector Lead – Mountain Region

Senior Project Manager

4600 E. Washington Street, Suite 600

Phoenix Arizona 85234

M 602.418.3950

Julie.hamilton@woodplc.com

The logo for Wood Group PLC, featuring the word "wood." in a bold, lowercase, sans-serif font. The period is a solid dot.

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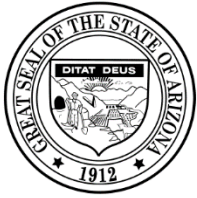
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4 attachments

-  **PTRL - Part A Application Revised 1-3-22- FINAL SIGNED.pdf**
1916K
-  **HWP EX3466 Administrative Incompleteness LTF 92382 12-17-2021.pdf**
692K
-  **AttD_QAPP.pdf**
12120K
-  **Appendix_E_Exhibit_7_PTRL Contingency Plan.pdf**
654K



Douglas A. Ducey
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



Misael Cabrera
Director

January 5, 2022
REF: HWP-EX3473

Mr. Steven Holland
Chief Risk Officer
University of Arizona
PO Box 210300
Tucson, Arizona 85721

Re: Administratively Complete Application for Hazardous Waste Permit; University of Arizona, Page-Trowbridge Ranch Landfill; EPA ID No. AZD 980 665 814; Place ID No. 3166; License Time Frames No. 92382.

Dear Mr. Holland:

The Arizona Department of Environmental Quality (ADEQ), Hazardous Waste Permits and Support Unit, received the above-referenced application and check # 91031 for \$20,000.00 on December 15, 2021 and a re-submittal received January, 5, 2022. Review of this application is subject to the requirements of the licensing time frames (LTF) statute under Arizona Revised Statutes (A.R.S.) § 41-1072 through § 41-1079 and the LTF rules under Arizona Administrative Code (A.A.C.) R18-1-501 through R18-1-525. Per A.A.C. R18-8-270(G)(1), the application will be processed at an hourly rate of \$136.00 per hour; the maximum fee for this application will not exceed \$400,000.00.

Per A.R.S. § 41-1074, ADEQ considered the application to be administratively complete on January, 5, 2022. The application is now subject to substantive review with a time frame of 376 business days. Enclosed is a copy of the administrative completeness review checklist and a tentative proposed permit processing schedule for the application.

If you have any questions, please feel free to give me a call at (602) 771-8727 or contact me via email at orman.gav@azdeq.gov.

Sincerely,

Gav Orman, Environmental Engineering Specialist
Hazardous Waste Permits & Support Unit
Waste Programs Division

ec: UA representatives (Jeff Christensen, Miguel Delgado)
Wood representatives (Douglas Fisher, Julie Hamilton)
Jessica Kohls, HWPSU Supervisor

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University of Arizona; Page-Trowbridge Ranch Landfill – Permit Processing Schedule LTF #92382

Project Step	Project Due Date (Anticipated)
Submittal Date	12/15/2021
Administrative Review Completeness	01/05/2022
Substantive Review 1 Complete (with draft Notice of Deficiencies (NOD))	01/26/2022
Substantive Review 2 Complete (with draft NOD, subject to Final NOD)	02/22/2022
Complete Pre-Draft Permit	03/24/2022
Review of Pre-Draft Permit Complete	04/07/2022
Prepare Draft Permit	04/14/2022
Start of 45-day Public Comment Period	04/21/2022
End of Public Comment Period	06/05/2022
Draft Response to Comments	06/10/2022
Final Response to Comments	06/10/2022
Grant Final Permit (Issuance pending payment of any outstanding fees)	06/13/2022

Note: Anticipated due dates are tentative to align with internal schedules and ideal project review times. If a formal NOD is required, or other delays occur, these dates are subject to change.



Hazardous Waste Treatment, Storage, and Disposal Facility Permit Administrative Completeness Review Checklist

Checklist Instruction

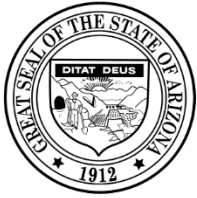
This checklist is provided as a guideline for ADEQ staff in performing administrative completeness reviews and to the applicant on what information ADEQ will need to administratively review a TSDf permit application. This checklist is designed to ensure the applicant provides information necessary to review the application.

Applicant: UofA – Page-Trowbridge Ranch Landfill	LTF: 92382			
Reviewer: Gav Orman	Date: 01/05/2022			
Item	Comments	Y	N	N/A
APPLICATION COMPONENTS				
One complete original and an electronic version of an application consisting of Parts A and B.		x		
Character Background Reference forms	Received 12/29/21	x		
Post-Closure Permit Application Checklist		x		
Certification of compliance with the U.S. EPA RCRA expanded public participation rule				N/A
The applicant must have a U.S. EPA ID Number assigned for the facility at the time of submittal	AZD980665814	x		
An initial application submittal fee, \$20,000.00 for a new or renewal of an existing TSDf	#91031	x		
SECTION A. PART A GENERAL INFORMATION REQUIREMENTS				
Site name	“Page-Trowbridge Ranch” in Part A; different naming throughout docs. To be aware of	x		
EPA ID number	AZD980665814	x		
Site location information		x		
Site contact and mailing address		x		
Legal owner and operator of the Site	Corrected in 1/5/22 submittal	x		
Type of regulated waste activity	Corrected in 1/5/22 submittal	x		
Description of hazardous waste		x		
Notification of hazardous secondary material (HSM) activity		x		
Certification, signed by owner and operator	Corrected in 1/5/22 submittal	x		
Facility permit contact		x		
Permit contact and operator mailing address and telephone number		x		
Facility existence date		x		
Listing of all other environmental permits received		x		
Nature of business		x		

Applicant: UofA – Page-Trowbridge Ranch Landfill	LTF: 92382			
Reviewer: Gav Orman	Date: 01/05/2022			
Item	Comments	Y	N	N/A
Process codes and design capacities	Corrected in 1/5/22 submittal	x		
Map		x		
Facility drawing		x		
Photographs		x		
SECTION B. FACILITY DESCRIPTION				
General Description		x		
Flood plain		x		
Surrounding land use		x		
Surface waters				N/A
Wind rose		x		
Map orientation		x		
Legal boundaries		x		
Access control		x		
Injection and withdrawal wells	Not updated since 2012 for off-site wells.	x		
Buildings and other structures		x		
Drainage and flood control		x		
Location of SWMUs		x		
Groundwater		x		
Seismic requirements				N/A
Traffic patterns				N/A
SECTION C. WASTE CHARACTERISTICS				
Waste Analysis Plan	List of chemicals previously disposed in landfill provided.			N/A
SECTION D. PROCESS INFORMATION				
Containers				N/A
Management Practices				N/A
Secondary containment				N/A
Run-on & run-off control				N/A
Tanks				N/A
Description and capacity				N/A
Certified Integrity assessment				N/A
Secondary containment				N/A
Leak detection requirements				N/A
Other Waste Units				N/A
SECTION E. GROUNDWATER MONITORING				
Groundwater monitoring exemption pursuant to 270.14(c)				N/A
Groundwater monitoring plan, if not exempt		x		
Hydrogeological information		x		
Well location, construction details		x		
Sampling and analysis plan (SAP)	QAPP provided in 1/5/22 submittal	x		
Groundwater monitoring program (GWMP)		x		

Applicant: UofA – Page-Trowbridge Ranch Landfill	LTF: 92382			
Reviewer: Gav Orman	Date: 01/05/2022			
Item	Comments	Y	N	N/A
Statistical procedures		x		
SECTION F. PROCEDURES TO PREVENT HAZARDS				
Security procedures		x		
Inspection requirements for each containment system		x		
Management of incompatible Waste				N/A
Management of ignitable waste				N/A
Fire protection				N/A
SECTION G. CONTINGENCY PLAN				
Contingency plan coordinators	Will need to submit C1 mod to change emerg. Coordinators after change.	x		
Emergency actions		x		
Emergency equipment		x		
Arrangement with local authorities	Corrected in 1/5/22 submittal	x		
Evacuation plan		x		
Reporting and recordkeeping procedures		x		
SECTION H. PERSONNEL TRAINING				
Training program outline		x		
Description of training		x		
SECTION I. CLOSURE/POST-CLOSURE PLANS AND FINANCIAL REQUIREMENTS				
Closure plans				N/A
Post-closure Plan		x		
Required notices		x		
Cost estimates for closure and post-closure				N/A
Financial assurance for closure and post-closure				N/A
Liability requirements				N/A
SECTION J. SOLID WASTE MANAGEMENT UNITS				
Description of SWMUs		x		
Description of releases		x		
SECTION K. OTHER FEDERAL LAWS				
Demonstrate compliance with requirements of other applicable Federal laws		x		
SECTION L. PART B CERTIFICATION				
Part B Certification	Updated version incoming	x		
SECTION M. SUBPART AA PROCESS VENTS				
Subpart AA applicability				N/A
Design, operation, monitoring, and inspection				N/A
SECTION N. SUBPART BB EQUIPMENT LEAKS				
Subpart BB applicability				N/A
Equipment description				N/A
Monitoring program, recordkeeping and reporting				N/A
SECTION O. SUBPART CC AIR EMISSION STANDARDS				
Subpart CC applicability				N/A
List of units that are exempt				N/A

Applicant: UofA – Page-Trowbridge Ranch Landfill	LTF: 92382			
Reviewer: Gav Orman	Date: 01/05/2022			
Item	Comments	Y	N	N/A
Tanks, surface impoundments, or containers requirements				N/A
Implementation plan				N/A
Monitoring plan				N/A
Reporting and recordkeeping requirements				N/A
SECTION P. EXPOSURE INFORMATION				
Only for surface impoundments and land disposal units		x		
SECTION Q. SUBPART X MISCELLANEOUS UNITS				
Subpart X applicability				N/A
Environmental performance standards				N/A
Monitoring, inspection, and reporting				N/A
SECTION R. CORRECTIVE ACTION				
Corrective Actions	SVE system was implemented as a corrective action – remedy complete and O&M manual included.			N/A



Douglas A. Ducey
Governor

ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY



Misael Cabrera
Director

February 17, 2022
HWP EX3485

Miguel Delgado
Chief Risk Officer
Department of Risk Management Services
University of Arizona
P.O. Box 210300,
Tucson, Arizona 85721-0300

RE: Substantive Notice of Deficiency (NOD); Application for a Hazardous Waste Post-Closure Permit; University of Arizona, Page-Trowbridge Ranch Landfill; EPA ID No. AZD 980 665 814; Place ID 3166; LTF No. 92382

Dear Mr. Delgado:

The Arizona Department of Environmental Quality (ADEQ) has reviewed the University of Arizona's (UA) Hazardous Waste Post-Closure Permit Application for Page-Trowbridge Ranch Landfill (PTRL) initially submitted December 15, 2021 with the administrative revisions received on January 5, 2022. ADEQ's review of this application is subject to the requirements of the licensing time frames (LTF) statute under Arizona Revised Statutes (A.R.S) §41-1072 through §41-1079 and the LTF rules under Arizona Administrative Code (A.A.C) R18-1-501 through R18-1-525. ADEQ is reviewing this application within the Substantive Review time frame and is making this Comprehensive Request for Additional Information (CRAI) under Arizona Revised Statute (A.R.S) § 41-1075(A). ADEQ has found deficiencies within the application. ADEQ sent a first Draft Substantive Notice of Deficiencies on January 11, 2022, with no revised response sent. ADEQ sent a second Draft Substantive Notice of Deficiencies on January 31, 2022, with no revised response sent. ADEQ is sending this notice that the license time frame for the application is suspended as of the date of this notice. **UA must respond to this notice on or before March 21, 2022 to resume the time frame.**

Required Information

ADEQ's comments on the permit application are attached to this letter. State law requires UA to submit a complete response to this NOD with the final full permit application in accordance with A.R.S. §49-922 and A.A.C. R18-8-270 and R18-8-271. All information submitted in support of the revised application must be accompanied by a certification statement in accordance with A.A.C. R18-8-270.A (40 CFR §270.11).

Consequences of Failure to Submit Required Information

Failure to submit a complete response to this NOD by the deadline may result in delay or denial of UA's application.

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February 17, 2022
Mr. Miguel Delgado
HWP-EX3485
Page 2 of 19

Recommendations

At UA's convenience, ADEQ is available for technical assistance to further discuss the attached comments prior to the due date.

How to Submit

UA must submit the response using the following methods:

- (a) Electronic Copy – Submit an electronic copy of the revised application parts and response to comments to Gav Orman.
- (b) The electronic copy should include the Adobe Acrobat file and the tracked changes Word document. Providing the tracked changes copy of the document will increase ADEQ's ability to re-review component pieces quickly.
- (c) Once UA's response to comments has been accepted, and the permit application pieces are finalized and approved, ADEQ will request that UA submit new hard copy versions (via mail or hand delivery). The delivery should be addressed to: Gav Orman, Hazardous Waste Permits and Support Unit, 1110 West Washington Street, Phoenix, Arizona 85007.

If you have any questions, please contact Gav Orman at (602)-771-8727 or via email at orman.gav@azdeq.gov.

Sincerely,



Gav Orman, Permit Writer
Hazardous Waste Permits and Support Unit (HWPSU)
Waste Programs Division

Ec: Facility File
Steve Holland, volunteer, UA
Jeff Christensen, Environmental Programs Manager, UA
Douglas Fisher, Wood
Julie Hamilton, Wood
Jessica Kohls, Manager (HWPSU)

Attachments

- *ADEQ's Finalized Comments on UA's Permit Application,*
- *Proposed Soil Vapor Borings for Updated HHRA, and*
- *Confidentiality Request Form.*

**DRAFT SUBSTANTIVE NOTICE OF DEFICIENCY
HAZARDOUS WASTE PERMIT APPLICATION
UNIVERSITY OF ARIZONA, PAGE-TROWBRIDGE RANCH LANDFILL
EPA ID NO. AZD 980 665 814**

REQUIRED INFORMATION

State law requires the University of Arizona (UA) to submit the following information so that the Arizona Department of Environmental Quality (ADEQ) can finalize the review and administration of UA's permit request for Page-Trowbridge Ranch (PTRL). Sections and Appendix names refer to them as presented in the Permit Application.

Section 1 – RCRA Part A Form [Unaddressed]

- 1. Part A Form, Site Contact:** The site contact change to Miguel Delgado is noted. Due to this change, Miguel will need to be added to the myDEQ account associated with PTRL. Guidance on shifting Responsible Corporate Officer duties and rights to him can be found [here](#).
- 2. Part A Form, 8700-23 (“Hazardous Waste Permit Part A Form”):** This form is missing from the application and needs to be included for the administrative record. This form can be found in the last two pages of the document linked [here](#).

Section 2 – Facility Description [Unaddressed]

- 3. Section 2, Page 2-1, First Paragraph:** Change the first sentence to say “The Page-Trowbridge Ranch Landfill (Page Ranch, PTRL,..)” to establish a naming convention throughout each attachment and to match the formal site name given in the Part A forms.
- 4. Section 2, Page 2-1, Second Paragraph, Final Sentence:** Application states that approximately 103 homes and a clubhouse have been constructed in the nearby community. This is the same as the 2012 permit and it is ADEQ's understanding that significant development has occurred since then. Please update the section to account for any development that has occurred between 2012 and 2021.
- 5. Section 2, Page 2-1, Sixth Paragraph:** Please include the missing parentheses after (DOT 17CD).
- 6. Section 2, Page 2-2, Fourth Bullet Point:** Appendix A (Construction Documentation Report for Final Cover System for Cells A and B) states that the stormwater culvert pipes are 35-inch by 24-inch, but Section 2 indicates that they are 36-inch by 22-inch. Clarify which is correct. If Appendix A is correct, update Section 2 to match. If Section 2 is correct, please provide explanation for the discrepancy.

Section 3 – Groundwater Monitoring [Unaddressed]

- 7. Section 3, General:** Update title to say “Groundwater and Soil Vapor Monitoring” since the section addresses both.

- 8. Section 3, General:** Establish a naming convention for PTRL prior to referring to it as “Page Ranch” in section 3.1.1 and Page Landfill in section 3.7.1.
- 9. Section 3, General:** The organization of section 3.3 through 4 is difficult to follow. Please indicate the years for each section and make it very clear what the current practices are for the monitoring program. It would be acceptable to summarize past phases of monitoring and detections into one section to ensure that the current monitoring program takes up the largest portion of this document. Try to clearly differentiate sections discussing past analyses versus sections discussing the current monitoring program applicable to this permit renewal. Discussion regarding past analyses and monitoring phases should come first, and the document should end on the current monitoring program and reporting requirements.
- 10. Section 3, Page 3-1, Section 3.1.1:** Has there been an updated well survey since 2011? Please update this list of nearby wells to be accurate for 2021.
- 11. Section 3, Page 3-3, Section 3.1.2.1:** Provide clarity on the filter packs. What natural material are they made of?
- 12. Section 3, Page 3-4, Section 3.1.2.4:** Update section to include analysis of data up to 2021 (as shown in Table 2).
- 13. Section 3, Page 3-5, Section 3.3:** Add the years interim status monitoring occurred at the beginning of this section to clearly identify when the samples were taken.
- 14. Section 3, Page 3-5, Section 3.3.3:** The results from 1984 to 1997 are not included in Appendix H. Appendix H only contains data from 2012 to 2021. Either remove this reference, or include the data in Appendix H.
- 15. Section 3, Page 3-7, Section 3.4:** Please include the range of dates for this “post-closure period” at the beginning for clarity and context of the data in this section. Additionally, the current program is still considered post-closure detection monitoring, so it may be more accurate to say “past post-closure monitoring.” Alternatively, keep this section as is and include data up to 2021.
- 16. Section 3, Page 3-9, Section 3.5.1:** Edit first sentence for clarity, along the lines of “Prior to landfill closure, a near surface soil vapor survey was conducted by HGC in July 1988 to determine the potential for contaminants from the landfill to migrate to the area surrounding the landfill.”
- 17. Section 3, Page 3-12, Section 3.6.2:** Include the radionuclides and the associated analysis methods in the bulleted list for clarity. Expand on which radionuclides the samples will be analyzed for (i.e. alpha emitters, gamma, etc.). Additionally, in recent

monitoring reports, EPA Method 504.1 has been included to analyze for ethylene dibromide, 1,2-dibromo-3-chloropropane, and 1,2,3-trichloropropane. Please include that in the list of analytes. Update the same list of analytes and methods in Section 3 and in Appendix B.

- 18. Section 3, Page 3-19, Section 3.7.2.4:** Change “very low” to “low”. Very is subjective, which can be misleading.
- 19. Section 3, Page 3-19, Section 3.7.3:** Please indicate which laboratory method (i.e. EPA method) will be used for each of the laboratory analyses as shown in Section 3.6.2 or reference the section where the EPA methods were identified.
- 20. Section 3, Page 3-19, Section 3.7.3:** Earlier in Section 3.6.2, testing for radionuclides was indicated, but that analysis has been excluded in this section. Include radionuclides in this list of analyses.
- 21. Section 3, Page 3-20, Section 3.7.4.2:** It would be more accurate to say that the justification for background water quality and alert levels is presented in Section 3.6.3 and 3.6.4 and that the values themselves are presented in Tables 6a and 7.
- 22. Section 3, Page 3-20, Section 3.7.4.4:** Text indicates that monitoring for analytes will change from twice a year or annual, as applicable, to twice that frequency. Clarify which analytes are tested annually? All previously discussed analyses are on a semi-annual schedule. Please clarify what is tested annually, or correct this section (and related sections in Appendix B and Appendix B Attachment D) to only show the semi-annual piece.
- 23. Section 3, Page 3-20, Section 3.7.4.4:** Where is retesting described above? The text only indicates the increased monitoring if an alert level is exceeded, but does not describe the requirement of retesting in case of an AWQS exceedance. Please include dialogue explaining how retesting will be done in the event of an exceedance or anomalous reading.
- 24. Section 3, Page 3-20, Section 3.7.4.4:** Remove “if necessary” from the last bullet of this section. While an exceedance of an alert level will result in increased monitoring and ADEQ consultation, the exceedance of an AWQS will require a meeting with ADEQ to, at a minimum, discuss the exceedance and remedial actions proposed along with the path forward.
- 25. Section 3, Page 3-21, Section 3.7.5.2:** ADEQ recommends adding radioactivity field monitoring or radionuclide soil gas monitoring on a frequency of once every two years. Radon gas is a possible decay product of multiple radionuclides found in the landfill and could pose a risk to nearby residents if preferential pathways are formed.

26. Section 3, Page 3-23, Section 4: Rather than having statistical analyses “if necessary”, please edit the report to include a statistical analysis on the soil vapor extraction (SVE) system’s influent data every two years or describe when statistical analysis would occur. This way there is a periodic check to determine if VOC concentrations being removed from the landfill are increasing or decreasing significantly.

27. Section 3, Page 3-23, Section 4: Please indicate where data and reports will be submitted. Electronic data deliverables will be submitted to ADEQ for inclusion in our water quality database. The semi-annual reports should be emailed to ADEQ via the hazwastepermits@azdeq.gov general inbox for review by the permit writer.

Section 4 – Procedures to Prevent Hazards [Unaddressed]

28. Section 4, Page 4-1, Gates: This section indicates that there are three rolling gates at the facility. The site map provided as Figure 1 only shows two rolling gates. Please correct this or clarify the location of the third gate.

29. Section 4, General: There is no discussion regarding the power supply for the SVE system. Are there procedures in place to be alerted when the SVE system shuts off unexpectedly or loses power from the solar panels/batteries? What protocols occur to ensure the SVE system’s operation in this instance? More detailed descriptions on responses to power failure may be appropriate to discuss elsewhere, but it may be worthwhile to include a small section here discussing the alert systems in place.

Additionally, please include discussion on what will be done to prevent overheating or fires from the SVE system, even if it is to reference a related section added to the Operation and Maintenance (O&M) manual or the contingency plan.

Section 5 – Contingency Plan [Unaddressed]

30. Section 5: Please use the full name “Page-Trowbridge Ranch Landfill” before establishing a shortened version of it.

Section 6 – Post-Closure Plan [Unaddressed, Comment 33 is New]

31. Section 6, Page 6-1, Inspection Plan: It’s ADEQ’s understanding that UA personnel perform monthly inspections during “Monsoon Season,” typically from July to September, in addition to the quarterly inspections. These monthly inspections during months where intense storms occur improve the resiliency of PTRL and ADEQ would like to see this continue. Please include these inspections in the inspection plan, or provide explanation for why UA believes quarterly inspections are sufficient.

32. Section 6, Page 6-4, Notation in Deed: In the last paragraph, it indicates that if UA wishes to remove wastes, then a permit modification will be requested. Update this section to state that if UA wishes to remove waste from the landfill, they must consult ADEQ and submit a permit modification prior to any work beginning.

33. Section 6, General: In the 2018 permit modification, submitted by UA, to update the restrictive covenant, the Post-Closure Plan was updated to include UA's actions to protect ingress and egress to the PTRL. This section is missing from this permit application. Please add discussion regarding maintaining ingress and egress for the Eastern entrance of PTRL.

Section 9 – References [Unaddressed]

34. Section 9, General: If specific references are necessary for each section of the main application, please include the references at the end of the appropriate section. There will not be a separate references page in the permit, so it's important to include the appropriate references in the relevant sections or appendices.

Tables [Unaddressed]

35. Table 8: Remove "Draft" from table.

Figures [Unaddressed]

36. Figure 4: This flood plain map is from 2011. Please confirm that there is not an updated version of this map. If there is an updated version since 2011, submit the new map.

37. Figures 6a through 6t: Add a line to these graphs indicating the alert level for each constituent to add value to the trendlines shown.

Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan
[Unaddressed]

38. Appendix B, Table of Contents: Fix formatting.

39. Appendix B, General: Please include some discussion about handling investigation derived waste (IDW) or decontaminating reusable equipment. This can include a reference to the Quality Assurance Project Plan (QAPP) where IDW and decontamination is discussed in more detail and a brief summary if necessary.

40. Appendix B, Page 1, Section 1.2: This section begins abruptly and the organization is confusing. It may be beneficial to put the last paragraph and bullet points first, and then close with the justification of not adding more wells.

41. Appendix B, Page 2, Section 1.2: The SVE O&M manual shows that samples are also taken from the SVE system's effluent to ensure functionality. Please include the effluent samples in this section or a reference to other operational samples being taken as described in the SVE O&M manual.

42. Appendix B, Page 2, Section 1.3.1: Same comment as number 41.

- 43. Appendix B, Page 3, Section 1.3.4:** Add radionuclides to the bulleted list along with the other analyses to ensure those samples are taken. Include the specific analytes and methods used.
- 44. Appendix B, Page 4, Section 1.4:** Remove “as required by Part IV of the Post-Closure Permit” and leave in that the inspections are contained in the Post-Closure Inspection and Maintenance Plan. Remove the last sentence and add (Appendix D) to the end of the first sentence.
- 45. Appendix B, Page 4-5, Section 2.1.1:** Include other safety equipment in this list or an adjacent list (i.e. safety glasses, goggles, etc.) and indicate safety or emergency equipment brought on sampling trips (as identified in the Site Health and Safety Plan or Contingency Plan). This could be done by referencing the appropriate sections where safety equipment is discussed.
- 46. Appendix B, Page 7, Section 2.2.2:** If a good cannister is between 26 in Hg and 30 in Hg, why are the cannisters only replaced if the reading is less than 20 in Hg? Please provide explanation for the difference.
- 47. Appendix B, Page 9, Section 3.2.4:** Please add “Well Purging” to the title of this section to clearly indicate that purging requirements can be found here.
- 48. Appendix B, Page 11, Section 3.3:** Sentence starting “Samples are collected..” seems to be missing a word or two.
- 49. Appendix B, Page 11, Section 3.3:** Be sure to make note of which leak detection compound is used on the field log in case the compound accidentally contaminates the samples.
- 50. Appendix B, General Organization:** The usability of this plan would improve if the sections were organized in the order they are performed (i.e. soil vapor monitoring prior to groundwater monitoring, MW-2 and MW-5 soil vapor protocols before the other monitoring points, etc.)
- 51. Appendix B, Page 13, Section 3.3.4:** Are field blanks collected for groundwater? Field blanks are collected for soil vapor, but there was no mention of blanks, other than the trip blank, for groundwater. ADEQ recommends including field blanks for all analyses.
- 52. Appendix B, Page 16, Section 4.6:** Rather than performing the statistical analysis (i.e Mann-Kendall) if necessary, ADEQ recommends doing the analysis on the SVE system’s influent data (and including it in the monitoring report) every two years, or on a UA recommended schedule. Doing so will allow for early detection of increasing trends.

- 53. Appendix B, Page 16, Section 4.6:** Please include where reports will be submitted in this section. Electronic data deliverables (EDD) will be submitted to ADEQ's water quality database and the full reports will be sent to ADEQ via hazwastepermits@azdeq.gov for review.
- 54. Appendix B, Attachment D (QAPP):** Update distribution sheet to remove Anthony Leverock and include Gav Orman for ADEQ.
- 55. Appendix B, Attachment D (QAPP), Page 1:** Update date of the Expanded Groundwater Detection Monitoring Plan (EGDMP) to reflect the most recent update.
- 56. Appendix B, Attachment D (QAPP), Page 4:** If an alert level is exceeded twice consecutively, monitoring should be increased and the well should be sampled again immediately. The section indicates that "retesting" will be done, but it is not explained. Please include the explanation in this section. Ensure this section reflects changes made in Section 3 and Appendix B regarding this response (Comment #22, 23, and 24).
- 57. Appendix B, Attachment D (QAPP), Page 10, Section 6.2.2:** While same day soil vapor sampling is ideal and should be the goal, if something occurs that prevents UA from sampling the same day, please indicate that UA will take soil vapor samples as soon as possible (within 2 days).
- 58. Appendix B, Attachment D (QAPP), Page 10, Section 6.2.3:** Include discussion regarding other IDW (i.e. disposable sampling equipment, disposable safety equipment).
- 59. Appendix B, Attachment D (QAPP), Page 10, Section 6.2.5:** Is dedicated equipment specific to each well? If not, any equipment that moves and touches the sampling ports between wells should be, at a minimum, rinsed off with DI water prior to being used on a different well to prevent any potential contamination. Explain why only the first three feet of the sounder is rinsed off prior to starting work. Is the rest of the sounder unexposed between sampling events?
- 60. Appendix B, Attachment D (QAPP), Page 16, Section 8.1:** Include discussion of field blanks here. Earlier in the document, it is indicated that a field blank is taken for SVE samples, but that is not shown in this section. Clarify if a field blank is taken for groundwater, and, if not, explain why.
- 61. Appendix B, Attachment D (QAPP), Page 21, Section 15:** Update authorized signatory for PTRL submittals to ADEQ.
- 62. Appendix B, Attachment D (QAPP), Page 22, Section 15.4:** Include how information is submitted to ADEQ for the report. EDD submitted for the water quality database and then the semi-annual report is sent to hazwastepermits@azdeq.gov for review.

63. Appendix B, Attachment D (QAPP), Table 1: Update ADEQ portion of this section. The hazardous waste permits unit supervisor is Jessica Kohl (602-580-6092), change project hydrogeologist to project manager or permit writer and have Gav Orman (602-771-8727).

64. Appendix B, Attachment D (QAPP), Table 2: Format table to make sure “representativeness” is on one line.

Appendix D – Post-Closure Inspection and Maintenance Plan [Unaddressed]

65. Appendix D, Page 1, Introduction: Same concern as comment #31. Please include the monthly inspections from July to September, or provide justification otherwise.

66. Appendix D, Page 1, Introduction: Sentence two discusses the groundwater monitoring wells. Please add language discussing inspection and maintenance of the SVE system.

67. Appendix D, Page 1, Access Roads: The last sentence of this section is confusing. Please re-word for clarity along the lines of “Vegetation density will be controlled by the UA personnel to allow access by emergency and maintenance vehicles.”

68. Appendix D, Page 1, Perimeter Fencing and Signs: Alter first sentence to include “...presence of excessive vegetation around entrance gates and fencing.” While removing excessive vegetation around the gates is vital for access, excessive vegetation around the fence itself can degrade the fence’s integrity.

69. Appendix D, Page 1, Survey Monuments: Change “tempering” to “tampering.”

70. Appendix D, General: There is no discussion regarding the inspection and maintenance of the SVE system. Please include the SVE system’s inspection and maintenance after the Groundwater Monitoring System section. If SVE inspection and maintenance is described in detail elsewhere (i.e. the O&M manual), please reference that in the added section.

71. Appendix D, Inspection Report: Please include the SVE system on this inspection report, or provide an additional attachment for the SVE system’s inspection.

Appendix E – Post Closure Contingency Plan [Unaddressed]

72. Appendix E, General: If UA wishes to have personal information for the emergency coordinators (home address, phone number, etc.) redacted from the public copy of the contingency plan, please submit the confidentiality request form (transmitted with this letter and in the pre-application package). Additionally, provide a version of the contingency plan with those pieces redacted for inclusion in the public copy of the permit and application.

- 73. Appendix E, Page 1, Section 1.A:** The third paragraph states that the cells in Units A and B were approximately 10 feet deep. However, Section 2 (Facility Description) indicates that the cells were 15 feet deep. Please clarify which is more accurate and correct the appropriate reference.
- 74. Appendix E, Page 2, Section 1.A:** This section states that there are three sets of gates, but Exhibit 2 only shows two entrances to the site. Please correct, or clarify the location of the third gate.
- 75. Appendix E, Page 2, Section 1.A:** Please include the SVE monitoring wells alongside the groundwater monitoring wells.
- 76. Appendix E, Page 2, Section 2:** Correct the page numbers for where the telephone numbers are listed. The Emergency Coordinators are listed on Pages 3 to 4, not 5 to 6 or 7 to 8.
- 77. Appendix E, Page 2, Section 2:** Remove semi-colon from sentence beginning “The decision to implement...”
- 78. Appendix E, Page 2, Section 2:** Correct the page number for contingency plan implementation.
- 79. Appendix E, Page 3, Emergency Coordinators:** With Miguel Delgado taking over as Chief Risk Officer, ADEQ recommends updating the emergency coordinator list during the permit renewal, rather than after issuance. Updating the emergency coordinator list after permit issuance would require a Class 1 Modification.
- 80. Appendix E, Page 3, UA Police Department:** Please include the area code for the non-campus phone line to ensure full understanding.
- 81. Appendix E, Page 4, Section 3:** Fix formatting for 1b.
- 82. Appendix E, Page 4, Section 3:** Does UA have a guideline or definition for what constitutes a significant storm event requiring contingency plan implementation?
- 83. Appendix E, Page 4, Section 3:** It seems like a word is missing from 2a.
- 84. Appendix E, Page 4, Section 4.A:** This paragraph could use additional clarity. Please re-write this paragraph to ensure the local notification paths are clear and concise. From the current paragraph, it’s unclear why the Tucson Area Agricultural Centers’ Director is a contact (are they close to the site?). Additionally, the sentence starting with “Personnel that are familiar...” is confusing. Does it mean that personnel on-site at the time of the incident need to wait for clearance prior to leaving the site? What if it’s a fire and they

need to evacuate prior to an emergency coordinator response? What if they are unfamiliar with the site? The page numbers where agencies can be found also seems to be incorrect.

- 85. Appendix E, Page 4-5, Evacuation Plan:** Would an evacuation still be initiated if the situation poses a threat to human health, and not just life? Clarify what the predetermined location is or include a map with the evacuation zone(s) highlighted. Would it be more beneficial to evacuate upwind of the facility to prevent exposure to airborne contaminants? Additionally, is there a system in place to notify the nearby communities in case further evacuation is necessary?
- 86. Appendix E, Page 5, Section 4.C:** Capitalize the first word of bullet g.
- 87. Appendix E, Page 6:** Fix formatting.
- 88. Appendix E, Page 6, #4:** Clarify if this means re-contacting the fire department and sheriff to update them with the new information.
- 89. Appendix E, Page 7, Section 4.F:** The sentence beginning “All releases of materials...” should be edited to remove “if possible” from the end. If the released materials cannot be identified, the release should continue to be treated as extremely hazardous.
- 90. Appendix E, Page 9, Emergency Equipment:** Is any emergency equipment brought with personnel for regular site visits (i.e. inspection or sampling visits)? ADEQ recommends ensuring that any personnel going to the site have an emergency response bag with them.
- 91. Appendix E, Page 9:** Missing parentheses at end of the last sentence.
- 92. Appendix E, Page 10, Contingency Plan Update, Distribution, and Control:** Please include (or be aware) that updates to the contingency plan must be submitted to ADEQ as a Class 1 Modification Request per 40 CFR Part 270.42 Appendix 1. Most changes to the contingency plan are simply informational modifications (no fee required), but changes to emergency equipment, emergency response, etc. require Director Approval (fee required).
- 93. Appendix E, Exhibit 3:** For recordkeeping purposes, obtain an updated resource allocation letter that acknowledges Miguel Delgado as the new Chief Risk Officer.
- 94. Appendix E, Exhibit 5:** Does UA have regular PPE inspections in place to ensure that the equipment is in good working order prior to usage?
- 95. Appendix E, Exhibit 5:** Are radios frequently brought to the site? In case of cell phone failure, it may be beneficial to bring a secondary communication pathway due to the remote nature of PTRL.

- 96. Appendix E, Quick Reference Guide, Section 5:** On number 1b, correct to say, “A fire that has originated...”
- 97. Appendix E, Quick Reference Guide, Section 5:** On 2a, capitalize the first letter of the sentence.
- 98. Appendix E, Quick Reference Guide, General:** This guide may benefit from having a stepwise list or “checklist” on who to contact and what to respond to first. This could be done to summarize the dialogue found in the full Contingency Plan.

Appendix F – Site Health and Safety Plan [Unaddressed]

- 99. Appendix F, Page 1, Purpose:** Change “extraction soil vapor” to “extract soil vapor.”
- 100. Appendix F, Page 2, Authorized Entry:** Alter sentence 3 to say “The SHSO for each visit will be determined prior to the visit,” to reduce redundancy.
- 101. Appendix F, Page 2, Authorized Entry #3:** Alter final sentence to say “...SHSO shall consult with the supervisor to correct the missing equipment prior to proceeding with the work.” This provides clarity to whether work will continue with missing equipment.
- 102. Appendix F, Page 3, Authorized Entry:** Clarify the communication strategy for the SHSO when they are the only person on-site. Will they have a cell phone? Do they alert other personnel prior to entering the site?
- 103. Appendix F, Page 3, Heat Stress:** Clarify how potable water will be readily available. Is this brought by the personnel?
- 104. Appendix F, Page 6, Chemical Hazards:** Last sentence of paragraph 1 is confusing. Please edit for clarity along the lines of: “Chemicals used for site maintenance, such as vegetation control, must be used only by trained applicators, in accordance with manufacturing specifications and safe handling techniques. Use and disposal provisions from the safety data sheets (SDS) must be followed and SDSs must be available or maintained on-site.”
- 105. Appendix F, Page 6, Chemical Hazards:** Change “Treated soil vapor contains some VOCs.” to “Treated soil vapor contains lower levels of VOCs.” The current wording is vague and can be misleading.
- 106. Appendix F, Page 7, Chemical Hazards:** In regards to oxygen level monitoring, are oxygen levels only measured prior to entry into the SVE areas, or do personnel wear a continuous percent oxygen monitor, with an alarm, during the work? ADEQ recommends having at least one continuous percent oxygen monitor with an alarm to alert personnel to a potentially hazardous condition within confined spaces. Please clarify.

107. Appendix F, Page 7, Chemical Hazards: Abbreviate “Soil Vapor Extraction” system to SVE as previously done in document.

108. Appendix F, Page 7, Chemical Hazards: The photo-ionization detectors (PIDs) have a shorter lifetime. Are personnel trained on how to test and calibrate the PIDs prior to use to ensure they are in working order? Similarly, is there a protocol in place to ensure the PIDs are reading accurately prior to relying on them in the field?

109. Appendix F, Page 7, Chemical Hazards Air Monitoring Action Levels: The alert level for combustible gas is indicated as less than 5% of the lower explosive limit (LEL). Standard is to alert at less than 10% of the LEL for increased safety. Please edit the table to reflect the 10% or provide justification for why 5% is acceptable.

110. Appendix F, Page 8, Fence: Correct formatting issue with 45-degree barbed wire note.

111. Appendix F, Page 8, Gate: Text indicates three rolling gates, but Figure 1 shows two rolling gates. Please correct to reflect the actual number of entrances to the site or clarify where the third gate is located.

112. Appendix F, General, 3.0 Hazard Assessment: There is no discussion regarding fire hazards (either natural or induced by on-site equipment). Please include discussion on where fires may occur and what is in place to prevent them. There should be fire response discussion in the contingency plan. At a minimum, an acknowledgement of this additional hazard and how it is prevented would be beneficial here.

Appendix G – SVE O&M Manual [Unaddressed]

113. Appendix G, Page 1: Alter the first sentence to say “A solar-powered soil vapor extraction (SVE) system was designed and constructed at the Page-Trowbridge Ranch Landfill (PTRL),” for clarity.

114. Appendix G, Page 1: Edit the second and third sentence for accuracy, “This Operations and Maintenance (O&M) Manual acts as a guide for the O&M of the SVE system. The SVE system is located between landfill units A and B in the center of the PTRL.”

115. Appendix G, General: Can UA provide a summary table with the operational parameters (i.e. minimums and maximums, values that trigger additional actions, etc.)? Adding this type of summary table to the O&M manual would increase usability of the document.

116. Appendix G, Page 1: It’s indicated that PID monitoring was removed in this revision. Please indicate what was removed and the reasoning behind it. Per the Site Health and Safety Plan, PID monitoring is required during certain maintenance activities within the

SVE system. Additionally, PID monitoring is still included on the maintenance sheet in Attachment F.

- 117. Appendix G, Page 1, Section 1.1:** Indicate what is not allowed to exceed 5.5 lbs/day (i.e. VOCs). Please attach calculations showing that the SVE system does not exceed this threshold using recent data (within last 3 years).
- 118. Appendix G, General:** Does the SVE system include alarms and alerts for emergency shut-offs, exceedance of operational parameters, etc.? If yes, please include dialogue about the alerts in this O&M manual. If no, please indicate why not and include a dialogue explaining how the current alert system is resilient enough to not require immediate alarms for exceedances.
- 119. Appendix G, General:** If adsorber efficiency increases with decreasing process temperatures, has there been consideration about building an enclosure or shade structure for the exposed components?
- 120. Appendix G, Batteries:** Does the battery array have a monitoring system on it to ensure proper operation? Are there alerts in case of battery failure or anomalous readings? What is the protocol for when the batteries fail and can't operate the pumps? Please include this information either in Appendix G or within an appropriate other location.
- 121. Appendix G, Page 7, Section 2.5.4:** Alter first sentence beginning "The Outback.." for clarity. The "state-of-the-art relative" makes the sentence a bit muddled and difficult to interpret.
- 122. Appendix G, General:** Were the solar panels and electrical system designed or reviewed by a certified electrical engineer?
- 123. Appendix G, General:** Clarify how operational parameters like pressure, battery voltage, amperage, etc. are recorded. Is monitoring continuous, or only during inspections?
- 124. Appendix G, Section 3, General:** Is there a range of acceptable system efficiencies? Is there a protocol for optimizing the system if performance drops below the minimum allowable efficiency? If this is not already in place, ADEQ recommends developing a range of allowable efficiencies along with a protocol for response and including that in this O&M manual.
- 125. Appendix G, Section 3.5:** Clarify what the normal operation is. When is the SVE system on versus off? How is that determined? Does UA run the system for specific months, if so which months?

126. Appendix G, Page 21, Section 4: The paragraph beginning with “Usually,” is in direct contradiction with the site health and safety plan unless the Site Health and Safety Officer is the person performing the inspection and maintenance activities. Please correct this sentence to clarify that at least two technicians need to be on-site during maintenance activities (even if only one technician is performing the maintenance, there should be a second person on-hand to shut off anything in case of emergency).

127. Appendix G, Page 22, Section 4.1.2: In regards to the solar array maintenance, please clarify if a specialist is brought out to clean the solar panels in case personnel attempts are not sufficient. Dirty panels can significantly reduce the efficiency of the system, and the current phrasing of this paragraph does not indicate if additional actions are taken.

128. Appendix G, Page 29 (and throughout), Section 6.3: The section indicates that the SVE system will minimally operate for 3 months on and then 9 months off. While knowing the minimum operation is valuable, ADEQ believes the system should run above the minimum for a more conservative approach. Please update this section to indicate the typical operation and that, at a minimum, the system will operate for 3 months a year.

ADEQ recommends adding another 3 months of operation (i.e. 3 months on, 3 months off, 3 months on, 3 months off) to increase the time for responses to an identified release. With releases detected within 5-10 years at the minimum operation, releases could be detected much faster with an increased operation schedule, allowing for faster response times. Please edit the SVE O&M manual to reflect this, or provide justification for solely operating at the minimum to be approved at ADEQ’s discretion. Additionally, please provide what months the system is intended to be operational.

129. Appendix G, Page 29 (and throughout), Section 6.3: Pulsed operation of SVE systems is an acceptable technique for steady state removal. Please provide statistical analyses (using the Mann-Kendall Method) to show that there is not a significant upward trend for any contaminants of concern being treated (influent and effluent).

130. Appendix G, Page 30: The spent carbon profile expired in 2011. Please indicate when the profile will be updated. If the profile has been updated since 2011, update this section.

131. Appendix G, Attachment E: Has there been updated data collection and calculations for the solar intensity/solar panel efficiency since 2011? If yes, attach the updated calculations. If no, provide explanation for why this data is still valid for 2022 or explain how UA plans to update the calculations.

Appendix H – Historical Groundwater Analytical Results [Unaddressed]

132. Appendix H, General: Add highlights to any result that exceeds an alert level (if applicable).

133. Appendix H, Table H-16: Correct formatting to stop the table from being cut-off.

Appendix I – Summary of Soil Vapor and SVE System Analytical Data [Unaddressed]

134. Appendix I, General: Add highlights to any result that exceeds an alert level (if applicable)

135. Appendix I, General: Make sure formatting for each table is correct and that no portion of the tables are cut off (i.e Table 1-12)

136. Appendix I, General: Please include monitoring data (from the soil vapor monitoring wells) from 2012 to 2021 like Appendix H for the groundwater monitoring wells. This can be interspersed with the influent/effluent data or can be all together after the influent/effluent data.

Appendix K – Human Health Risk Assessment [Unaddressed]

137. Human Health Risk Assessment, General: ADEQ requests that UA provides an updated Human Health Risk Assessment (HHRA) for PTRL. If UA does not have a recent HHRA (updated within the last two years) that addresses data gaps from the 2009 report and updates the exposure model, ADEQ will include this requirement as a schedule of compliance order in the issued permit. This will allow UA to begin the update process and submit the updated HHRA after permit issuance as a permit modification. The permit modification would be subject to LTF requirements, including review time and contractor review costs. This schedule of compliance order will be in accordance with R18-8-270.A (40 CFR §270.32(b)(2) and §270.33) and will dictate when UA is required to submit the scope of work, workplans and project schedule, draft HHRA, and the final, certified HHRA.

UA requested that ADEQ provide general items to include in the updated HHRA. At a minimum, ADEQ would like to see the following addressed:

- (a) An analysis of data gaps from the 2009 report. This can be attached to the scope of work submittal for review.
- (b) Analysis of the past 10 years of routine soil vapor and groundwater monitoring data (including statistical analysis via Mann-Kendall Method, or equivalent methods).
- (c) Analysis of new or potential exposure pathways (construction trenches for utilities, potential for groundwater being used as drinking water, updated well surveys, displacement of soil via high wind events, etc.)
- (d) Update the exposure model and risk calculations using up to date data (including data taken during the HHRA update).
- (e) Sampling and analysis of VOC emissions from SVE vents.

- (f) Sampling and analysis of the groundwater wells for PFAS alongside the routine groundwater monitoring.
- (g) Sampling and analysis of soil vapor in shallow soils along the perimeter of the landfill for VOCs and radioactivity (radioactivity via soil vapor analysis or via field testing).
 - ADEQ proposes that soil vapor samples be taken at a depth of 5 to 10 ft below ground surface on approximately 100 ft centers around the perimeter of the landfill. Four additional samples should be taken at the interior of the site, near the landfill units, for comparison to perimeter values. A map with ADEQ's proposed conceptual sampling locations is transmitted with this letter, overlaid on the previous soil vapor study for comparison.
 - Include dialogue comparing the updated shallow soil vapor samples to the ones taken in 2007. Are concentrations increasing or decreasing at the landfill's perimeter? Is the SVE system operating sufficiently enough to prevent further releases at the perimeter and be protective of human health if development was to occur closer to the landfill?
- (h) Samples and analyses should account for seasonal variability that has potential to affect soil gas VOC concentrations (including temperature and moisture content of shallow soils). ADEQ recommends doing the above sampling and analyses twice (i.e. spring and fall or summer and winter).

If UA disagrees with any of the above proposed updates, please recommend an alternative approach with a technical explanation detailing why the alternate approach is equally sufficient in identifying potential human health and environmental risks. If UA has any questions regarding ADEQ's reasoning behind the proposed updates, please reach out to Gav Orman via phone at (602) 771-8727 or via email at orman.gav@azdeq.gov.

Appendix L – Development of Operational Parameters for SVE System [Unaddressed]

138. Appendix L, General: Was this document adapted and updated from the one done by AMEC? First paragraph feels misleading – if this is a repeat of the same document produced by AMEC, please indicate what has been updated and make sure it's very clear when this work was done. If it was updated and adapted by Wood in 2021, please change the old information to be in past tense.

139. Appendix L, General: If this document was updated, please alter the text of Section 2.0 to be accurate for the current state. Particularly, the sentence “Operating the SVE system is not required by the current RCRA permit..” should be altered to show that the SVE system is required per the 2012 permit.

140. Appendix L, Page 12: The last sentence before Section 5.3 states 9.2 scfm, but should either state 9.25 scfm or 9.3 scfm. Please correct.

141. Appendix L, Table 2: Are hydraulic conductivity values provided in this table the actual values (identified based on data taken), or are they theoretical/estimated? Please clarify.

142. Appendix L, Figures: Remove “Draft” from figures and other tables

Appendix Q – Training Plan [Unaddressed]

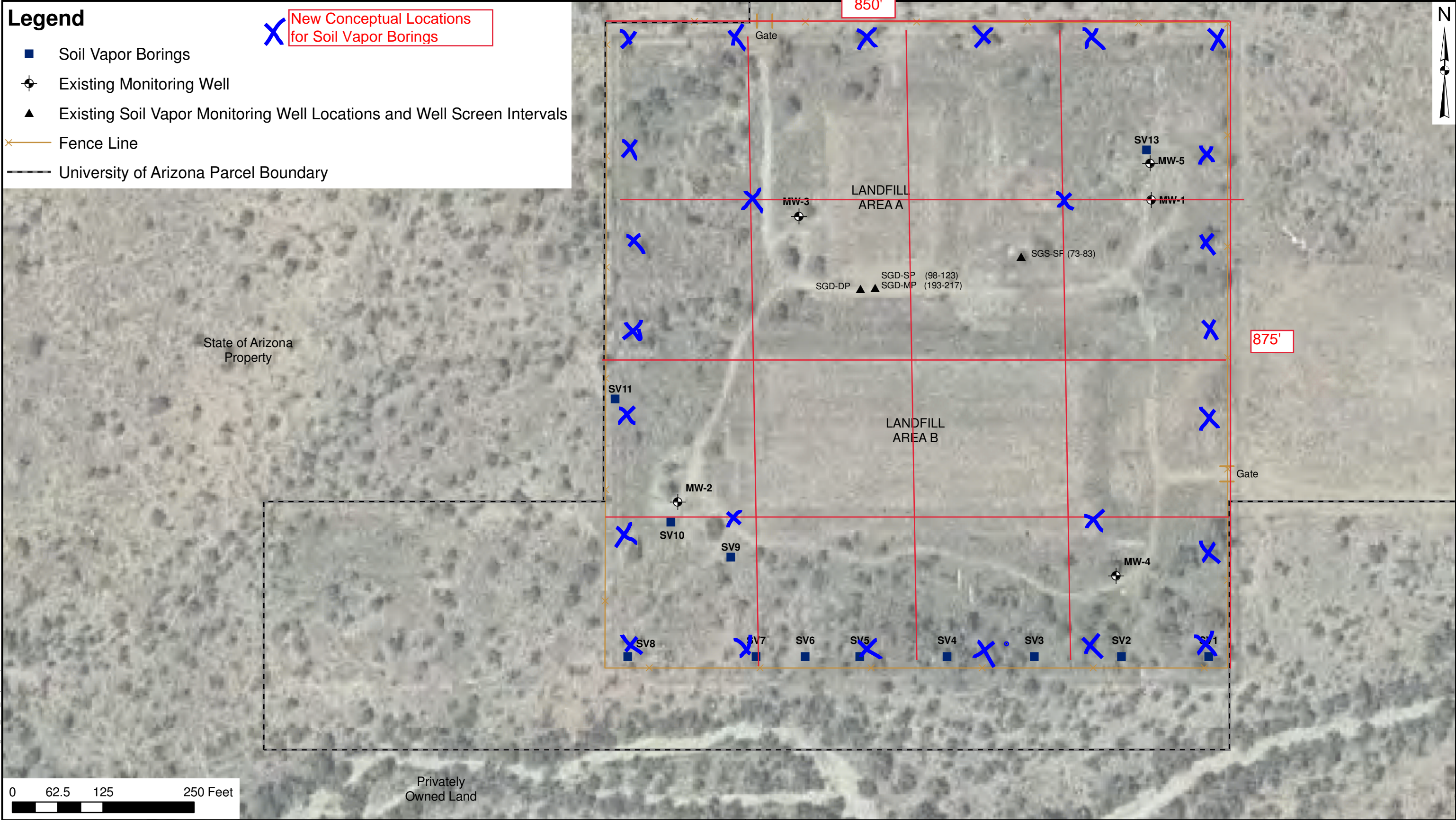
143. Appendix Q, Section 4.d: Correct formatting of second paragraph.

144. Appendix Q, Exhibit 2 and 3: These exhibits were not included in the electronic copy. Please add them to the document.

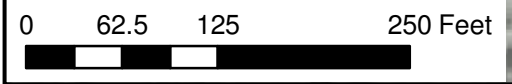
Legend

- Soil Vapor Borings
- ⊕ Existing Monitoring Well
- ▲ Existing Soil Vapor Monitoring Well Locations and Well Screen Intervals
- ✕ Fence Line
- University of Arizona Parcel Boundary

X New Conceptual Locations for Soil Vapor Borings



Map Document: (X:\Projects\7-743-30000\MXD\Figure1_Site_Map.mxd) 1/11/2008 -- 10:10:01 AM



	JOB NO.: 7-743-30000 DESIGN: JH DRAWN: ECT DATE: 1/11/2008 SCALE: 1" = 125'	Groundwater and Soil Vapor Monitoring Locations		
		Site Map Page Trowbridge Ranch Landfill Oracle, AZ	FIGURE 2	



Confidentiality Request Form

You are hereby notified that you may assert a claim of confidentiality regarding the documents(s) you are supplying to the Arizona Department of Environmental Quality (ADEQ). In order to claim confidentiality you must complete Sections I, II, and III of this form. If you claim confidentiality ADEQ will make a determination on your claim and advise you in writing within ten (10) working days. If you do not claim confidentiality, these documents will be considered public records and be immediately available to the public.

Facility

EPA ID number

- I. I do do not claim confidentiality for these records.
Complete Sections II and III below if you are claiming confidentiality.
- II. Please state whether confidentiality is claimed for all or part of the documents(s). If for part only, specify parts for which confidentiality is claimed.
- III. Please state reason for confidentiality.

Document(s) contain information sensitive to homeland security.
Explanation:

Document(s) contain trade secrets
Explanation:

Document(s) contain information that if made public is likely to cause substantial harm to person's competitive position.

Explanation:

Other reason

Explanation:

IV. Additional Comments

Responsible Party Signature , Title

Date

If you have any questions regarding this form please contact the ADEQ Office of Administrative Counsel at (602) 771-2212 or toll free at (800) 234-5677 Ext 771-2212.

RISK MANAGEMENT SERVICES

University Services Annex 300B
220 W Sixth St., East Building 2nd Floor
PO Box 210300
Tucson, Arizona 85721-0300

Ofc: (520) 621-1790
Fax: (520) 621-3706

<http://risk.arizona.edu/>

March 21, 2022

Ms. Gav Orman- Hazardous Waste Permits & Support Units
Arizona Department of Environmental
1110 West Washington Street
Phoenix, AZ 85007

Re: **Response to Substantive Notice of Deficiency (NOD) Application for a Hazardous Waste Post-Closure Permit Dated February 17, 2022**
Page Trowbridge Ranch Landfill- EPA ID No. AZD 980 665 814

Dear Ms. Orman:

The University of Arizona is pleased to submit the attached response to the February 17, 2022 Substantive Notice of Deficiency. The revised application including a redlined version of the revised documents will be transmitted electronically via a OneDrive link. A copy of our response has also been included as *Appendix T* to the application.

Please reach out if you have additional questions or concerns.

Sincerely,



Miguel Delgado CRM, ARM, ARM-P, AINS
Chief Risk Officer, University of Arizona

Cc: Erik Lohman, Doug Brown- ADOA-RMD
Julie Hamilton, Doug Fisher- Wood Environmental
Herb Wagner, Jeff Christensen- UArizona Risk Management

APPENDIX T

ADEQ COMMENTS AND RESPONSES

Response to ADEQ Notice of Deficiency
Application for a Hazardous Waste Post Closure Permit dated February 17, 2022

Response Date: March 21, 2022

Comment #	Reference	Comment/Recommendation	Response (Action that was completed)	ADEQ Response Complete
1	Section 1 – RCRA Part A Form	Part A Form, Site Contact: The site contact change to Miguel Delgado is noted. Due to this change, Miguel will need to be added to the myDEQ account associated with PTRL. Guidance on shifting Responsible Corporate Officer duties and rights to him can be found here .	This has been changed.	
2	Section 1 – RCRA Part A Form	Part A Form, 8700-23 (“Hazardous Waste Permit Part A Form”): This form is missing from the application and needs to be included for the administrative record. This form can be found in the last two pages of the document linked here .	This form has been completed.	
3	Section 2 – Facility Description	Section 2, Page 2-1, First Paragraph: Change the first sentence to say “The Page-Trowbridge Ranch Landfill (Page Ranch, PTRL,..)” to establish a naming convention throughout each attachment and to match the formal site name given in the Part A forms.	This change was made.	
4	Section 2 – Facility Description	Section 2, Page 2-1, Second Paragraph, Final Sentence: Application states that approximately 103 homes and a clubhouse have been constructed in the nearby community. This is the same as the 2012 permit and it is ADEQ’s understanding that significant development has occurred since then. Please update the section to account for any development that has occurred between 2012 and 2021.	This section has been updated.	
5	Section 2 – Facility Description	Section 2, Page 2-1, Sixth Paragraph: Please include the missing parentheses after (DOT 17CI).	This change was made.	
6	Section 2 – Facility Description	Section 2, Page 2-2, Fourth Bullet Point: Appendix A (Construction Documentation Report for Final Cover System for Cells A and B) states that the stormwater culvert pipes are 35-inch by 24-inch, but Section 2 indicates that they are 36-inch by 22-inch. Clarify which is correct. If Appendix A is correct, update Section 2 to match. If Section 2 is correct, please provide explanation for the discrepancy.	This has been corrected.	

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7	Section 3 – Groundwater Monitoring	Section 3, General: Update title to say “Groundwater and Soil Vapor Monitoring” since the section addresses both.	This change has been made.	
8	Section 3 – Groundwater Monitoring	Section 3, General: Establish a naming convention for PTRL prior to referring to it as “Page Ranch” in section 3.1.1 and Page Landfill in section 3.7.1.	This change has been made throughout.	
9	Section 3 – Groundwater Monitoring	Section 3, General: The organization of section 3.3 through 4 is difficult to follow. Please indicate the years for each section and make it very clear what the current practices are for the monitoring program. It would be acceptable to summarize past phases of monitoring and detections into one section to ensure that the current monitoring program takes up the largest portion of this document. Try to clearly differentiate sections discussing past analyses versus sections discussing the current monitoring program applicable to this permit renewal. Discussion regarding past analyses and monitoring phases should come first, and the document should end on the current monitoring program and reporting requirements.	This entire section has been reorganized. The historical summary of the site will be updated in the new Risk Assessment.	
10	Section 3 – Groundwater Monitoring	Section 3, Page 3-1, Section 3.1.1: Has there been an updated well survey since 2011? Please update this list of nearby wells to be accurate for 2021.	A well survey was completed as part of this response and the section update with the new number of wells. Further details on the well use will be provided in the updated risk assessment.	
11	Section 3 – Groundwater Monitoring	1. Section 3, Page 3-3, Section 3.1.2.1: Provide clarity on the filter packs. What natural material are they made of?	This entire section has been reorganized.	
12	Section 3 – Groundwater Monitoring	Section 3, Page 3-4, Section 3.1.2.4: Update section to include analysis of data up to 2021 (as shown in Table 2).	This entire section has been reorganized.	

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13	Section 3 – Groundwater Monitoring	Section 3, Page 3-5, Section 3.3: Add the years interim status monitoring occurred at the beginning of this section to clearly identify when the samples were taken.	This entire section has been reorganized.	
14	Section 3 – Groundwater Monitoring	Section 3, Page 3-5, Section 3.3.3: The results from 1984 to 1997 are not included in Appendix H. Appendix H only contains data from 2012 to 2021. Either remove this reference, or include the data in Appendix H.	This has been updated. Appendix H will only include data from 2011 to 2021.	
15	Section 3 – Groundwater Monitoring	Section 3, Page 3-7, Section 3.4: Please include the range of dates for this “post-closure period” at the beginning for clarity and context of the data in this section. Additionally, the current program is still considered post-closure detection monitoring, so it may be more accurate to say “past post-closure monitoring.” Alternatively, keep this section as is and include data up to 2021.	This entire section has been reorganized.	
16	Section 3 – Groundwater Monitoring	Section 3, Page 3-9, Section 3.5.1: Edit first sentence for clarity, along the lines of “Prior to landfill closure, a near surface soil vapor survey was conducted by HGC in July 1988 to determine the potential for contaminants from the landfill to migrate to the area surrounding the landfill.”	This entire section has been reorganized.	
17	Section 3 – Groundwater Monitoring	Section 3, Page 3-12, Section 3.6.2: Include the radionuclides and the associated analysis methods in the bulleted list for clarity. Expand on which radionuclides the samples will be analyzed for (i.e. alpha emitters, gamma, etc.). Additionally, in recent monitoring reports, EPA Method 504.1 has been included to analyze for ethylene dibromide, 1,2-dibromo-3-chloropropane, and 1,2,3-trichloropropane. Please include that in the list of analytes. Update the same list of analytes and methods in Section 3 and in Appendix B.	Radionuclides have been added. Methods 504.1 and 524.2 have been added.	

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18	Section 3 – Groundwater Monitoring	Section 3, Page 3-19, Section 3.7.2.4: Change “very low” to “low”. Very is subjective, which can be misleading.	This change has been made.	
19	Section 3 – Groundwater Monitoring	Section 3, Page 3-19, Section 3.7.3: Please indicate which laboratory method (i.e. EPA method) will be used for each of the laboratory analyses as shown in Section 3.6.2 or reference the section where the EPA methods were identified.	Analytical methods are presented in detail in Appendix B.	
20	Section 3 – Groundwater Monitoring	Section 3, Page 3-19, Section 3.7.3: Earlier in Section 3.6.2, testing for radionuclides was indicated, but that analysis has been excluded in this section. Include radionuclides in this list of analyses.	This entire section has been reorganized. Radionuclides have been added.	
21	Section 3 – Groundwater Monitoring	Section 3, Page 3-20, Section 3.7.4.2: It would be more accurate to say that the justification for background water quality and alert levels is presented in Section 3.6.3 and 3.6.4 and that the values themselves are presented in Tables 6a and 7.	This change has been made. Please note tables 4 and 5 were removed. Tables 6, 7, and 8 are now tables 4, 5 and 6.	
22	Section 3 – Groundwater Monitoring	Section 3, Page 3-20, Section 3.7.4.4: Text indicates that monitoring for analytes will change from twice a year or annual, as applicable, to twice that frequency. Clarify which analytes are tested annually? All previously discussed analyses are on a semi-annual schedule. Please clarify what is tested annually, or correct this section (and related sections in Appendix B and Appendix B Attachment D) to only show the semi-annual piece.	All analytes are analyzed semi-annually. This change has been made.	
23	Section 3 – Groundwater Monitoring	Section 3, Page 3-20, Section 3.7.4.4: Where is retesting described above? The text only indicates the increased monitoring if an alert level is exceeded, but does not describe the requirement of retesting in case of an AWQS exceedance. Please include dialogue explaining how retesting	The following statement is in Section 3. <i>If a determination is made based on the analytical data that AWQS specified in AAC R-18-11-405 have been exceeded in groundwater samples collected</i>	

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		will be done in the event of an exceedance or anomalous reading.	<p><i>from the site monitoring wells, the following actions will be taken:</i></p> <ul style="list-style-type: none"> • <i>ADEQ will be notified within seven days upon receipt of laboratory results indicating an exceedance of an AWQS.</i> • <i>Retesting will be performed as described above.</i> • <i>If laboratory analyses of verification samples indicate an exceedance of an AWQS, periodic monitoring will be increased as stated above.</i> • <i>If laboratory analyses of verification samples indicate an exceedance of an AWQS, a report will be submitted to ADEQ within 30 days upon receipt of laboratory results. The report will include at a minimum the following:</i> <ul style="list-style-type: none"> • <i>AWQs which have been exceeded;</i> • <i>and,</i> • <i>The period of exceedance and remedial measures proposed.</i> 	
24	Section 3 – Groundwater Monitoring	Section 3, Page 3-20, Section 3.7.4.4: Remove “if necessary” from the last bullet of this section. While an exceedance of an alert level will result in increased monitoring and ADEQ consultation, the exceedance of an AWQS will require a meeting with ADEQ to, at a minimum, discuss the exceedance and remedial actions proposed along with the path forward.	“If necessary” has been removed.	
25	Section 3 – Groundwater Monitoring	Section 3, Page 3-21, Section 3.7.5.2: ADEQ recommends adding radioactivity field monitoring or radionuclide soil gas monitoring on a frequency of once every two years. Radon gas is a possible decay product of multiple radionuclides found in the landfill and could pose a risk to nearby residents if preferential pathways are formed.	This comment will be addressed in the comment regarding the Risk Assessment.	

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26	Section 3 – Groundwater Monitoring	Section 3, Page 3-23, Section 4: Rather than having statistical analyses “if necessary”, please edit the report to include a statistical analysis on the soil vapor extraction (SVE) system’s influent data every two years or describe when statistical analysis would occur. This way there is a periodic check to determine if VOC concentrations being removed from the landfill are increasing or decreasing significantly.	The concentrations are generally decreasing. Per our original monitoring program, additional steps, including statistical analysis, will be performed if an alert level is exceeded.	
27	Section 3 – Groundwater Monitoring	Section 3, Page 3-23, Section 4: Please indicate where data and reports will be submitted. Electronic data deliverables will be submitted to ADEQ for inclusion in our water quality database. The semi-annual reports should be emailed to ADEQ via the hazwastepermits@azdeq.gov general inbox for review by the permit writer.	This has been added.	
28	Section 4 – Procedures to Prevent Hazards	Section 4, Page 4-1, Gates: This section indicates that there are three rolling gates at the facility. The site map provided as Figure 1 only shows two rolling gates. Please correct this or clarify the location of the third gate.	There are three gates. One is located on the north and two one the east. The second gate on the east is 230 feet north of the main entrance.	
29	Section 4 – Procedures to Prevent Hazards	Section 4, General: There is no discussion regarding the power supply for the SVE system. Are there procedures in place to be alerted when the SVE system shuts off unexpectedly or loses power from the solar panels/batteries? What protocols occur to ensure the SVE system’s operation in this instance? More detailed descriptions on responses to power failure may be appropriate to discuss elsewhere, but it may be worthwhile to include a small section here discussing the alert systems in place. Additionally, please include discussion on what will be done to prevent overheating or fires from the SVE system, even if it is to reference a related section added to the Operation and Maintenance (O&M) manual or the contingency plan.	The data is being recorded and transmitted in real time to the site technician. If no data is being received, we assume the system is not running and the technician goes to the site to conduct an inspection. The battery cabinet has fan that continuously runs to prevent overheating.	

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30	Section 5 – Contingency Plan	Section 5: Please use the full name “Page-Trowbridge Ranch Landfill” before establishing a shortened version of it.	This change was made.	
31	Section 6 – Post- Closure Plan	Section 6, Page 6-1, Inspection Plan: It’s ADEQ’s understanding that UA personnel perform monthly inspections during “Monsoon Season,” typically from July to September, in addition to the quarterly inspections. These monthly inspections during months where intense storms occur improve the resiliency of PTRL and ADEQ would like to see this continue. Please include these inspections in the inspection plan, or provide explanation for why UA believes quarterly inspections are sufficient.	This section was revised to note that periodic inspections would be completed as necessary following major storm events. Appendix D, Post Closure Inspection Plan was also revised.	
32	Section 6 – Post- Closure Plan	Section 6, Page 6-4, Notation in Deed: In the last paragraph, it indicates that if UA wishes to remove wastes, then a permit modification will be requested. Update this section to state that if UA wishes to remove waste from the landfill, they must consult ADEQ and submit a permit modification prior to any work beginning.	This change was made.	
33	Section 6 – Post- Closure Plan	Section 6, General: In the 2018 permit modification, submitted by UA, to update the restrictive covenant, the Post-Closure Plan was updated to include UA’s actions to protect ingress and egress to the PTRL. This section is missing from this permit application. Please add discussion regarding maintaining ingress and egress for the Eastern entrance of PTRL.	A bullet was added to Section 6, under Access Roads as follows: <i>“Maintaining ingress and egress for the eastern entrance of PTRL”</i>	
34	Section 9 – References	Section 9, General: If specific references are necessary for each section of the main application, please include the references at the end of the appropriate section. There will not be a separate references page in the permit, so it’s important to include the appropriate references in the relevant sections or appendices.	The narrative section, including References, has been combined into a single document.	

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35	Tables	Table 8: Remove "Draft" from table.	This change was made. Please note, Table 8 is now Table 6.	
36	Figures	Figure 4: This flood plain map is from 2011. Please confirm that there is not an updated version of this map. If there is an updated version since 2011, submit the new map.	It was verified that this is the most current flood plain map. The date on the figure has been changed to 2022.	
37	Figures	Figures 6a through 6t: Add a line to these graphs indicating the alert level for each constituent to add value to the trendlines shown.	The alert level line for each constituent was added.	
38	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Table of Contents: Fix formatting.	Formatting has been fixed.	
39	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, General: Please include some discussion about handling investigation derived waste (IDW) or decontaminating reusable equipment. This can include a reference to the Quality Assurance Project Plan (QAPP) where IDW and decontamination is discussed in more detail and a brief summary if necessary.	A reference has been added referring to the QAPP.	
40	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Page 1, Section 1.2: This section begins abruptly and the organization is confusing. It may be beneficial to put the last paragraph and bullet points first, and then close with the justification of not adding more wells.	The paragraph regarding not adding additional wells is no longer relevant and has been removed.	
41	Appendix B – Post-Closure Period Expanded Groundwater	Appendix B, Page 2, Section 1.2: The SVE O&M manual shows that samples are also taken from the SVE system's effluent to ensure functionality. Please include the effluent	A sentence was added to the end of Section 1.2 to reference the effluent samples.	

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	Detection Monitoring Plan	samples in this section or a reference to other operational samples being taken as described in the SVE O&M manual.		
42	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Page 2, Section 1.3.1: Same comment as number 41.	A sentence was added to the end of Section 1.3.1 to reference the effluent samples.	
43	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Page 3, Section 1.3.4: Add radionuclides to the bulleted list along with the other analyses to ensure those samples are taken. Include the specific analytes and methods used.	The specific analytes were added to the bulleted list.	
44	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Page 4, Section 1.4: Remove “as required by Part IV of the Post-Closure Permit” and leave in that the inspections are contained in the Post-Closure Inspection and Maintenance Plan. Remove the last sentence and add (Appendix D) to the end of the first sentence.	Change was made (not in track changes).	
45	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Page 4-5, Section 2.1.1: Include other safety equipment in this list or an adjacent list (i.e. safety glasses, goggles, etc.) and indicate safety or emergency equipment brought on sampling trips (as identified in the Site Health and Safety Plan or Contingency Plan). This could be done by referencing the appropriate sections where safety equipment is discussed.	This list has been updated.	
46	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Page 7, Section 2.2.2: If a good cannister is between 26 in Hg and 30 in Hg, why are the cannisters only replaced if the reading is less than 20 in Hg? Please provide explanation for the difference.	Less than 20 would not allow for a proper sample withdrawal. A clarification was added.	

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47	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Page 9, Section 3.2.4: Please add “Well Purging” to the title of this section to clearly indicate that purging requirements can be found here.	Complete, added “during well Purging” to the title.	
48	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Page 11, Section 3.3: Sentence starting “Samples are collected..” seems to be missing a word or two.	The paragraph was revised for clarification.	
49	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Page 11, Section 3.3: Be sure to make note of which leak detection compound is used on the field log in case the compound accidentally contaminates the samples.	A sentence was added to this section to reference that the leak detection compound is recorded on the field form. Leak detection compound was added to the field form.	
50	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, General Organization: The usability of this plan would improve if the sections were organized in the order they are performed (i.e. soil vapor monitoring prior to groundwater monitoring, MW-2 and MW-5 soil vapor protocols before the other monitoring points, etc.)	The existing organization of the plan is the organization that the users of the plan prefer. As such, no changes have been made to the organization.	
51	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Page 13, Section 3.3.4: Are field blanks collected for groundwater? Field blanks are collected for soil vapor, but there was no mention of blanks, other than the trip blank, for groundwater. ADEQ recommends including field blanks for all analyses.	Since dedicated equipment is utilized for each well, equipment field blanks are not necessary for groundwater. A trip blank, prepared by the laboratory, is included with each sampling cooler and is analyzed with each sampling event. The trip blank is discussed in section 2.1.2.	
52	Appendix B – Post-Closure Period Expanded Groundwater	Appendix B, Page 16, Section 4.6: Rather than performing the statistical analysis (i.e Mann-Kendall) if necessary, ADEQ recommends doing the analysis on the SVE system’s influent data (and including it in the monitoring report) every two	Per our original monitoring program, additional steps, including statistical analysis, will be performed if an alert level is exceeded.	

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	Detection Monitoring Plan	years, or on a UA recommended schedule. Doing so will allow for early detection of increasing trends.	The purpose of the soil vapor monitoring is for early detection of potential impacts to groundwater.	
53	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Page 16, Section 4.6: Please include where reports will be submitted in this section. Electronic data deliverables (EDD) will be submitted to ADEQ’s water quality database and the full reports will be sent to ADEQ via hazwastepermits@azdeq.gov for review.	This has been added.	
54	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Attachment D (QAPP): Update distribution sheet to remove Anthony Leverock and include Gav Orman for ADEQ.	This change has been made.	
55	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Attachment D (QAPP), Page 1: Update date of the Expanded Groundwater Detection Monitoring Plan (EGDMP) to reflect the most recent update.	Updated date has been added.	
56	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Attachment D (QAPP), Page 4: If an alert level is exceeded twice consecutively, monitoring should be increased and the well should be sampled again immediately. The section indicates that “retesting” will be done, but it is not explained. Please include the explanation in this section. Ensure this section reflects changes made in Section 3 and Appendix B regarding this response (Comment #22, 23, and 24).	See response to comment 22, which explains the process for retesting and notifying ADEQ. Reference to annual sampling has been removed.	
57	Appendix B – Post-Closure Period Expanded Groundwater	Appendix B, Attachment D (QAPP), Page 10, Section 6.2.2: While same day soil vapor sampling is ideal and should be the goal, if something occurs that prevents UA from sampling the same day, please indicate that UA will take soil vapor samples as soon as possible (within 2 days).	The following sentence was added: “If sampling cannot occur on the same day, it will be conducted as soon as possible thereafter.”	

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	Detection Monitoring Plan			
58	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Attachment D (QAPP), Page 10, Section 6.2.3: Include discussion regarding other IDW (i.e. disposable sampling equipment, disposable safety equipment).	The following sentences were added: “Personal protection equipment (PPE) will be taken off site and disposed of as solid waste. Currently no disposal sampling equipment is used. However, if used in the future, it would also be taken off site and disposed as solid waste.”	
59	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Attachment D (QAPP), Page 10, Section 6.2.5: Is dedicated equipment specific to each well? If not, any equipment that moves and touches the sampling ports between wells should be, at a minimum, rinsed off with DI water prior to being used on a different well to prevent any potential contamination. Explain why only the first three feet of the sounder is rinsed off prior to starting work. Is the rest of the sounder unexposed between sampling events?	The only non-dedicated equipment is the water depth sounder. Only the first three feet is rinsed between wells because it is the only portion that enters that water at each well. No changes have been made to this section.	
60	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Attachment D (QAPP), Page 16, Section 8.1: Include discussion of field blanks here. Earlier in the document, it is indicated that a field blank is taken for SVE samples, but that is not shown in this section. Clarify if a field blank is taken for groundwater, and, if not, explain why.	The following section was added. 8.1.3 Field Blank Sample And Use of Leak Detection Compound During the soil vapor monitoring process a leak detection compound is used to ensure that the sample is being drawn from the well and that outside air is not being drawn into the sample. In addition, one field blank is collected during the soil vapor sampling event. The field blank is collected by opening the cannister to collect ambient air. This ensures that the cannisters used in the sampling event have been properly sanitized and prepared by the laboratory.	

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			Field blanks are not collected during the groundwater monitoring activities because all sampling equipment, with the exception of the water level sounder, is dedicated to a specific well.	
61	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Attachment D (QAPP), Page 21, Section 15: Update authorized signatory for PTRL submittals to ADEQ.	Miguel Delgado has been added in place of Steve Holland.	
62	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Attachment D (QAPP), Page 22, Section 15.4: Include how information is submitted to ADEQ for the report. EDD submitted for the water quality database and then the semi-annual report is sent to hazwastepermits@azdeq.gov for review.	This has been added.	
63	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Attachment D (QAPP), Table 1: Update ADEQ portion of this section. The hazardous waste permits unit supervisor is Jessica Kohl (602-580-6092), change project hydrogeologist to project manager or permit writer and have Gav Orman (602-771-8727).	Complete	
64	Appendix B – Post-Closure Period Expanded Groundwater Detection Monitoring Plan	Appendix B, Attachment D (QAPP), Table 2: Format table to make sure “representativeness” is on one line.	Complete	
65	Appendix D – Post-Closure Inspection and Maintenance Plan	Appendix D, Page 1, Introduction: Sentence two discusses the groundwater monitoring wells. Please add language discussing inspection and maintenance of the SVE system.	Complete	

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66	Appendix D – Post-Closure Inspection and Maintenance Plan	Appendix D, Page 1, Access Roads: The last sentence of this section is confusing. Please re-word for clarity along the lines of “Vegetation density will be controlled by the UA personnel to allow access by emergency and maintenance vehicles.”	Complete	
67	Appendix D – Post-Closure Inspection and Maintenance Plan	Appendix D, Page 1, Perimeter Fencing and Signs: Alter first sentence to include “...presence of excessive vegetation around entrance gates and fencing.” While removing excessive vegetation around the gates is vital for access, excessive vegetation around the fence itself can degrade the fence’s integrity.	Complete	
68	Appendix D – Post-Closure Inspection and Maintenance Plan	Appendix D, Page 1, Survey Monuments: Change “tempering” to “tampering.”	Complete	
69	Appendix D – Post-Closure Inspection and Maintenance Plan	Appendix D, General: There is no discussion regarding the inspection and maintenance of the SVE system. Please include the SVE system’s inspection and maintenance after the Groundwater Monitoring System section. If SVE inspection and maintenance is described in detail elsewhere (i.e. the O&M manual), please reference that in the added section.	Complete	
70	Appendix D – Post-Closure Inspection and Maintenance Plan	Appendix D, Inspection Report: Please include the SVE system on this inspection report, or provide an additional attachment for the SVE system’s inspection.	Complete	
71	Appendix E – Post Closure Contingency Plan	Appendix E, General: If UA wishes to have personal information for the emergency coordinators (home address, phone number, etc.) redacted from the public copy of the contingency plan, please submit the confidentiality request form (transmitted with this letter and in the pre-application	Complete	

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		package). Additionally, provide a version of the contingency plan with those pieces redacted for inclusion in the public copy of the permit and application.		
72	Appendix E – Post Closure Contingency Plan	Appendix E, Page 1, Section 1.A: The third paragraph states that the cells in Units A and B were approximately 10 feet deep. However, Section 2 (Facility Description) indicates that the cells were 15 feet deep. Please clarify which is more accurate and correct the appropriate reference.	Complete	
73	Appendix E – Post Closure Contingency Plan	Appendix E, Page 2, Section 1.A: This section states that there are three sets of gates, but Exhibit 2 only shows two entrances to the site. Please correct, or clarify the location of the third gate.	Complete	
74	Appendix E – Post Closure Contingency Plan	Appendix E, Page 2, Section 1.A: Please include the SVE monitoring wells alongside the groundwater monitoring wells.	Complete	
75	Appendix E – Post Closure Contingency Plan	Appendix E, Page 2, Section 2: Correct the page numbers for where the telephone numbers are listed. The Emergency Coordinators are listed on Pages 3 to 4, not 5 to 6 or 7 to 8.	Complete	
76	Appendix E – Post Closure Contingency Plan	Appendix E, Page 2, Section 2: Remove semi-colon from sentence beginning “The decision to implement...”	Complete	
77	Appendix E – Post Closure Contingency Plan	Appendix E, Page 2, Section 2: Correct the page number for contingency plan implementation.	Complete	
78	Appendix E – Post Closure	Appendix E, Page 3, Emergency Coordinators: With Miguel Delgado taking over as Chief Risk Officer, ADEQ recommends updating the emergency coordinator list during the permit	Complete	

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	Contingency Plan	renewal, rather than after issuance. Updating the emergency coordinator list after permit issuance would require a Class 1 Modification.		
79	Appendix E – Post Closure Contingency Plan	Appendix E, Page 3, Emergency Coordinators: With Miguel Delgado taking over as Chief Risk Officer, ADEQ recommends updating the emergency coordinator list during the permit renewal, rather than after issuance. Updating the emergency coordinator list after permit issuance would require a Class 1 Modification.	Complete	
80	Appendix E – Post Closure Contingency Plan	Appendix E, Page 3, UA Police Department: Please include the area code for the non-campus phone line to ensure full understanding.	Complete	
81	Appendix E – Post Closure Contingency Plan	Appendix E, Page 4, Section 3: Fix formatting for 1b.	Complete	
82	Appendix E – Post Closure Contingency Plan	Appendix E, Page 4, Section 3: Does UA have a guideline or definition for what constitutes a significant storm event requiring contingency plan implementation?	Complete	
83	Appendix E – Post Closure Contingency Plan	Appendix E, Page 4, Section 3: It seems like a word is missing from 2a.	Complete	
84	Appendix E – Post Closure Contingency Plan	Appendix E, Page 4, Section 4.A: This paragraph could use additional clarity. Please re-write this paragraph to ensure the local notification paths are clear and concise. From the current paragraph, it's unclear why the Tucson Area Agricultural Centers' Director is a contact (are they close to the site?). Additionally, the sentence starting with "Personnel that are familiar..." is confusing. Does it mean that personnel on-site at the time of the incident need to wait for clearance	Complete	

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		prior to leaving the site? What if it's a fire and they need to evacuate prior to an emergency coordinator response? What if they are unfamiliar with the site? The page numbers where agencies can be found also seems to be incorrect.		
85	Appendix E – Post Closure Contingency Plan	Appendix E, Page 4-5, Evacuation Plan: Would an evacuation still be initiated if the situation poses a threat to human health, and not just life? Clarify what the predetermined location is or include a map with the evacuation zone(s) highlighted. Would it be more beneficial to evacuate upwind of the facility to prevent exposure to airborne contaminants? Additionally, is there a system in place to notify the nearby communities in case further evacuation is necessary?	Complete	
86	Appendix E – Post Closure Contingency Plan	Appendix E, Page 5, Section 4.C: Capitalize the first word of bullet g.	Complete	
87	Appendix E – Post Closure Contingency Plan	Appendix E, Page 6: Fix formatting.	Complete	
88	Appendix E – Post Closure Contingency Plan	Appendix E, Page 6, #4: Clarify if this means re-contacting the fire department and sheriff to update them with the new information.	Complete	
89	Appendix E – Post Closure Contingency Plan	Appendix E, Page 7, Section 4.F: The sentence beginning “All releases of materials...” should be edited to remove “if possible” from the end. If the released materials cannot be identified, the release should continue to be treated as extremely hazardous.	Complete	
90	Appendix E – Post Closure Contingency Plan	Appendix E, Page 9, Emergency Equipment: Is any emergency equipment brought with personnel for regular site visits (i.e. inspection or sampling visits)? ADEQ	Complete	

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		recommends ensuring that any personnel going to the site have an emergency response bag with them.		
91	Appendix E – Post Closure Contingency Plan	Appendix E, Page 9: Missing parentheses at end of the last sentence.	Complete	
92	Appendix E – Post Closure Contingency Plan	Appendix E, Page 10, Contingency Plan Update, Distribution, and Control: Please include (or be aware) that updates to the contingency plan must be submitted to ADEQ as a Class 1 Modification Request per 40 CFR Part 270.42 Appendix 1. Most changes to the contingency plan are simply informational modifications (no fee required), but changes to emergency equipment, emergency response, etc. require Director Approval (fee required).	Complete	
93	Appendix E – Post Closure Contingency Plan	Appendix E, Exhibit 3: For recordkeeping purposes, obtain an updated resource allocation letter that acknowledges Miguel Delgado as the new Chief Risk Officer.	Complete	
94	Appendix E – Post Closure Contingency Plan	Appendix E, Exhibit 5: Does UA have regular PPE inspections in place to ensure that the equipment is in good working order prior to usage?	Complete	
95	Appendix E – Post Closure Contingency Plan	Appendix E, Exhibit 5: Are radios frequently brought to the site? In case of cell phone failure, it may be beneficial to bring a secondary communication pathway due to the remote nature of PTRL.	Complete	
96	Appendix E – Post Closure Contingency Plan	Appendix E, Quick Reference Guide, Section 5: On number 1b, correct to say, “A fire that has originated...”	Complete	
97	Appendix E – Post Closure	Appendix E, Quick Reference Guide, Section 5: On 2a, capitalize the first letter of the sentence.	Complete	

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	Contingency Plan			
98	Appendix E – Post Closure Contingency Plan	Appendix E, Quick Reference Guide, General: This guide may benefit from having a stepwise list or “checklist” on who to contact and what to respond to first. This could be done to summarize the dialogue found in the full Contingency Plan.	Complete	
99	Appendix F – Site Health and Safety Plan	Appendix F, Page 1, Purpose: Change “extraction soil vapor” to “extract soil vapor.”	Complete	
100	Appendix F – Site Health and Safety Plan	Appendix F, Page 2, Authorized Entry: Alter sentence 3 to say “The SHSO for each visit will be determined prior to the visit,” to reduce redundancy.	Complete	
101	Appendix F – Site Health and Safety Plan	Appendix F, Page 2, Authorized Entry #3: Alter final sentence to say “...SHSO shall consult with the supervisor to correct the missing equipment prior to proceeding with the work.” This provides clarity to whether work will continue with missing equipment.	Complete	
102	Appendix F – Site Health and Safety Plan	Appendix F, Page 3, Authorized Entry: Clarify the communication strategy for the SHSO when they are the only person on-site. Will they have a cell phone? Do they alert other personnel prior to entering the site?	Complete	
103	Appendix F – Site Health and Safety Plan	Appendix F, Page 3, Heat Stress: Clarify how potable water will be readily available. Is this brought by the personnel?	Complete	
104	Appendix F – Site Health and Safety Plan	Appendix F, Page 6, Chemical Hazards: Last sentence of paragraph 1 is confusing. Please edit for clarity along the lines of: “Chemicals used for site maintenance, such as vegetation control, must be used only by trained applicators, in accordance with manufacturing specifications and safe	Complete	

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		handling techniques. Use and disposal provisions from the safety data sheets (SDS) must be followed and SDSs must be available or maintained on-site.”		
105	Appendix F – Site Health and Safety Plan	Appendix F, Page 6, Chemical Hazards: Change “Treated soil vapor contains some VOCs.” to “Treated soil vapor contains lower levels of VOCs.” The current wording is vague and can be misleading	Complete	
106	Appendix F – Site Health and Safety Plan	Appendix F, Page 7, Chemical Hazards: In regards to oxygen level monitoring, are oxygen levels only measured prior to entry into the SVE areas, or do personnel wear a continuous percent oxygen monitor, with an alarm, during the work? ADEQ recommends having at least one continuous percent oxygen monitor with an alarm to alert personnel to a potentially hazardous condition within confined spaces. Please clarify.	Complete	
107	Appendix F – Site Health and Safety Plan	Appendix F, Page 7, Chemical Hazards: Abbreviate “Soil Vapor Extraction” system to SVE as previously done in document.	Complete	
108	Appendix F – Site Health and Safety Plan	Appendix F, Page 7, Chemical Hazards: The photo-ionization detectors (PIDs) have a shorter lifetime. Are personnel trained on how to test and calibrate the PIDs prior to use to ensure they are in working order? Similarly, is there a protocol in place to ensure the PIDs are reading accurately prior to relying on them in the field?	Complete	
109	Appendix F – Site Health and Safety Plan	Appendix F, Page 7, Chemical Hazards Air Monitoring Action Levels: The alert level for combustible gas is indicated as less than 5% of the lower explosive limit (LEL). Standard is to alert at less than 10% of the LEL for increased safety. Please edit the table to reflect the 10% or provide justification for why 5% is acceptable.	Complete	

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110	Appendix F – Site Health and Safety Plan	Appendix F, Page 8, Fence: Correct formatting issue with 45-degree barbed wire note.	Complete	
111	Appendix F – Site Health and Safety Plan	Appendix F, Page 8, Gate: Text indicates three rolling gates, but Figure 1 shows two rolling gates. Please correct to reflect the actual number of entrances to the site or clarify where the third gate is located.	Complete	
112	Appendix F – Site Health and Safety Plan	Appendix F, General, 3.0 Hazard Assessment: There is no discussion regarding fire hazards (either natural or induced by on-site equipment). Please include discussion on where fires may occur and what is in place to prevent them. There should be fire response discussion in the contingency plan. At a minimum, an acknowledgement of this additional hazard and how it is prevented would be beneficial here.	Complete	
113	Appendix G – SVE O&M Manual	Appendix G, Page 1: Alter the first sentence to say “A solar-powered soil vapor extraction (SVE) system was designed and constructed at the Page-Trowbridge Ranch Landfill (PTRL),” for clarity.	Changed	
114	Appendix G – SVE O&M Manual	Appendix G, Page 1: Edit the second and third sentence for accuracy, “This Operations and Maintenance (O&M) Manual acts as a guide for the O&M of the SVE system. The SVE system is located between landfill units A and B in the center of the PTRL.”	Changed	
115	Appendix G – SVE O&M Manual	Appendix G, General: Can UA provide a summary table with the operational parameters (i.e. minimums and maximums, values that trigger additional actions, etc.)? Adding this type of summary table to the O&M manual would increase usability of the document.	Table with SVE influent alert levels added	
116	Appendix G – SVE O&M Manual	Appendix G, Page 1: It’s indicated that PID monitoring was removed in this revision. Please indicate what was removed and the reasoning behind it. Per the Site Health and Safety	Changed, need to revise Appendix F to remove PID monitoring.	

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		Plan, PID monitoring is required during certain maintenance activities within the SVE system. Additionally, PID monitoring is still included on the maintenance sheet in Attachment F.		
117	Appendix G – SVE O&M Manual	Appendix G, Page 1, Section 1.1: Indicate what is not allowed to exceed 5.5 lbs/day (i.e. VOCs). Please attach calculations showing that the SVE system does not exceed this threshold using recent data (within last 3 years).	Added text defining HAPS are not to exceed 5.5 pounds per day and generated tables of emission calculations for the system since 2019.	
118	Appendix G – SVE O&M Manual	Appendix G, General: Does the SVE system include alarms and alerts for emergency shut-offs, exceedance of operational parameters, etc.? If yes, please include dialogue about the alerts in this O&M manual. If no, please indicate why not and include a dialogue explaining how the current alert system is resilient enough to not require immediate alarms for exceedances.	Added text to the O&M manual stating that there is no SCADA or remote alert capabilities on the SVE system and that it is not necessary given the weekly site visits and the purpose of the system.	
119	Appendix G – SVE O&M Manual	Appendix G, General: If adsorber efficiency increases with decreasing process temperatures, has there been consideration about building an enclosure or shade structure for the exposed components?	Added language to section 2.1 to address this comment.	
120	Appendix G – SVE O&M Manual	Appendix G, Batteries: Does the battery array have a monitoring system on it to ensure proper operation? Are there alerts in case of battery failure or anomalous readings? What is the protocol for when the batteries fail and can't operate the pumps? Please include this information either in Appendix G or within an appropriate other location.	Section 2.5.4 discusses the electrical system controller. Added text to this section stating that there is no remote communications capability on the system and that weekly site visits are adequate to identify and resolve faults.	
121	Appendix G – SVE O&M Manual	Appendix G, Page 7, Section 2.5.4: Alter first sentence beginning "The Outback.." for clarity. The "state-of-the-art relative" makes the sentence a bit muddled and difficult to interpret.	Adjusted text for clarity	

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122	Appendix G – SVE O&M Manual	Appendix G, General: Were the solar panels and electrical system designed or reviewed by a certified electrical engineer?	Added text that the system was designed and installed by HGC in 2008. I am unclear as to whether the system was designed by a licensed EE.	
123	Appendix G – SVE O&M Manual	Appendix G, General: Clarify how operational parameters like pressure, battery voltage, amperage, etc. are recorded. Is monitoring continuous, or only during inspections?	Added a sentence that parameters are logged on field log sheets during weekly site visits.	
124	Appendix G – SVE O&M Manual	Appendix G, Section 3, General: Is there a range of acceptable system efficiencies? Is there a protocol for optimizing the system if performance drops below the minimum allowable efficiency? If this is not already in place, ADEQ recommends developing a range of allowable efficiencies along with a protocol for response and including that in this O&M manual.	Added a table with the acceptable voltage ranges and a discussion on what to do if the system is out of range.	
125	Appendix G – SVE O&M Manual	Appendix G, Section 3.5: Clarify what the normal operation is. When is the SVE system on versus off? How is that determined? Does UA run the system for specific months, if so which months?	Added a paragraph to clarify this.	
126	Appendix G – SVE O&M Manual	Appendix G, Page 21, Section 4: The paragraph beginning with “Usually,” is in direct contradiction with the site health and safety plan unless the Site Health and Safety Officer is the person performing the inspection and maintenance activities. Please correct this sentence to clarify that at least two technicians need to be on-site during maintenance activities (even if only one technician is performing the maintenance, there should be a second person on-hand to shut off anything in case of emergency).	Revised language to address ADEQ’s comment without committing to having two techs onsite for all maintenance activities.	
127	Appendix G – SVE O&M Manual	Appendix G, Page 22, Section 4.1.2: In regards to the solar array maintenance, please clarify if a specialist is brought out to clean the solar panels in case personnel attempts are not	Added a sentence to state that if performance of the arrays is diminished following cleaning by	

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		sufficient. Dirty panels can significantly reduce the efficiency of the system, and the current phrasing of this paragraph does not indicate if additional actions are taken.	U of A staff a qualified subcontractor will be used to clean them.	
128	Appendix G – SVE O&M Manual	<p>Appendix G, Page 29 (and throughout), Section 6.3: The section indicates that the SVE system will minimally operate for 3 months on and then 9 months off. While knowing the minimum operation is valuable, ADEQ believes the system should run above the minimum for a more conservative approach. Please update this section to indicate the typical operation and that, at a minimum, the system will operate for 3 months a year.</p> <p>ADEQ recommends adding another 3 months of operation (i.e. 3 months on, 3 months off, 3 months on, 3 months off) to increase the time for responses to an identified release. With releases detected within 5-10 years at the minimum operation, releases could be detected much faster with an increased operation schedule, allowing for faster response times. Please edit the SVE O&M manual to reflect this, or provide justification for solely operating at the minimum to be approved at ADEQ’s discretion. Additionally, please provide what months the system is intended to be operational.</p>	Added a sentence stating that typical operation is 3 months on and 3 months off but did not define the months the system will be operated to allow operational flexibility.	
129	Appendix G – SVE O&M Manual	Appendix G, Page 29 (and throughout), Section 6.3: Pulsed operation of SVE systems is an acceptable technique for steady state removal. Please provide statistical analyses (using the Mann-Kendall Method) to show that there is not a significant upward trend for any contaminants of concern being treated (influent and effluent).	Added language stating that if an alert level is exceeded additional measures, including statistical analysis will be taken.	

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130	Appendix G – SVE O&M Manual	Appendix G, Page 30: The spent carbon profile expired in 2011. Please indicate when the profile will be updated. If the profile has been updated since 2011, update this section.	Updated text to provide the current profile expiration date.	
131	Appendix G – SVE O&M Manual	Appendix G, Attachment E: Has there been updated data collection and calculations for the solar intensity/solar panel efficiency since 2011? If yes, attach the updated calculations. If no, provide explanation for why this data is still valid for 2022 or explain how UA plans to update the calculations.	Added language to Section 2.6.4 discussing monitoring of solar array performance and actions that would be taken if efficiency is below acceptable limits.	
132	Appendix H – Historical Groundwater Analytical Results	Appendix H, General: Add highlights to any result that exceeds an alert level (if applicable).	There has not been any exceedances for the past 10 year permit period.	
133	Appendix H – Historical Groundwater Analytical Results	Appendix H, Table H-16: Correct formatting to stop the table from being cut-off.	Complete	
134	Appendix I – Summary of Soil Vapor and SVE System Analytical Data	Appendix I, General: Add highlights to any result that exceeds an alert level (if applicable)	Highlights have been added to results that exceeded alert levels. These exceedances occurred with the influent samples in 2011 and 2012 and were addressed in the semi-annual reports for those years.	
135	Appendix I – Summary of Soil Vapor and SVE System Analytical Data	Appendix I, General: Make sure formatting for each table is correct and that no portion of the tables are cut off (i.e Table 1-12)	Complete	
136	Appendix I – Summary of Soil Vapor and SVE System Analytical Data	Appendix I, General: Please include monitoring data (from the soil vapor monitoring wells) from 2012 to 2021 like Appendix H for the groundwater monitoring wells. This can be interspersed with the influent/effluent data or can be all together after the influent/effluent data.	This Appendix has been updated to include all soil vapor data.	

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	Appendix K – Human Health Risk Assessment	<p>Human Health Risk Assessment, General: ADEQ requests that UA provides an updated Human Health Risk Assessment (HHRA) for PTRL. If UA does not have a recent HHRA (updated within the last two years) that addresses data gaps from the 2009 report and updates the exposure model, ADEQ will include this requirement as a schedule of compliance order in the issued permit. This will allow UA to begin the update process and submit the updated HHRA after permit issuance as a permit modification. The permit modification would be subject to LTF requirements, including review time and contractor review costs. This schedule of compliance order will be in accordance with R18-8-270.A (40 CFR §270.32(b)(2) and §270.33) and will dictate when UA is required to submit the scope of work, workplans and project schedule, draft HHRA, and the final, certified HHRA.</p> <p>UA requested that ADEQ provide general items to include in the updated HHRA. At a minimum, ADEQ would like to see the following addressed:</p> <ul style="list-style-type: none"> (a) An analysis of data gaps from the 2009 report. This can be attached to the scope of work submittal for review. (b) Analysis of the past 10 years of routine soil vapor and groundwater monitoring data (including statistical analysis via Mann-Kendall Method, or equivalent methods). (c) Analysis of new or potential exposure pathways (construction trenches for utilities, potential for groundwater being used as drinking water, updated well surveys, displacement of soil via high wind events, etc.) 	<p>UA agrees to conducting a human health risk assessment under a schedule of compliance to the permit.</p> <p>We propose to prepare a risk assessment work plan for ADEQ approval prior to implementation. This will include a detailed discussion of the procedures and methodology to be implemented, including specific details for the shallow soil gas survey.</p> <p>As part of this response, we would like to specify a few qualifiers for the risk assessment approach as follows:</p> <ol style="list-style-type: none"> 1) We propose to conduct the PFAS sampling as part of the next sampling event (April/May 2022) and then discontinue if the results indicate there is not PFAS present. 2) We propose to conduct 13 soil sampling points instead of the 26 suggested. This spacing is consistent with other typical soil vapor intrusion evaluations. 3) We propose to conduct the soil gas survey on one occasion just before system start up, which would be the most conservative approach. If concentrations are such that soil vapor is not an intrusion concern, a second round of sampling would not be performed. Further, we do not
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		<p>(d) Update the exposure model and risk calculations using up to date data (including data taken during the HHRA update).</p> <p>(e) Sampling and analysis of VOC emissions from SVE vents.</p> <p>(f) Sampling and analysis of the groundwater wells for PFAS alongside the routine groundwater monitoring.</p> <p>(g) Sampling and analysis of soil vapor in shallow soils along the perimeter of the landfill for VOCs and radioactivity (radioactivity via soil vapor analysis or via field testing).</p> <ul style="list-style-type: none"> ○ ADEQ proposes that soil vapor samples be taken at a depth of 5 to 10 ft below ground surface on approximately 100 ft centers around the perimeter of the landfill. Four additional samples should be taken at the interior of the site, near the landfill units, for comparison to perimeter values. A map with ADEQ’s proposed conceptual sampling locations is transmitted with this letter, overlaid on the previous soil vapor study for comparison. ○ Include dialogue comparing the updated shallow soil vapor samples to the ones taken in 2007. Are concentrations increasing or decreasing at the landfill’s perimeter? 	<p style="color: red;">anticipate seasonal variation in this environment.</p> <p style="color: red;">4) We propose to use the last five years of soil vapor and groundwater data for the risk assessment. This would be the most representative of current conditions.</p> <p style="color: red;">5) We are not opposed to testing for radon assuming that there is a viable method that would allow us to collect representative samples. We would also want to make sure that we can establish a regional background level, as radon is naturally occurring in this area.</p>	
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		<p>Is the SVE system operating sufficiently enough to prevent further releases at the perimeter and be protective of human health if development was to occur closer to the landfill?</p> <p>(h) Samples and analyses should account for seasonal variability that has potential to affect soil gas VOC concentrations (including temperature and moisture content of shallow soils). ADEQ recommends doing the above sampling and analyses twice (i.e. spring and fall or summer and winter).</p> <p>If UA disagrees with any of the above proposed updates, please recommend an alternative approach with a technical explanation detailing why the alternate approach is equally sufficient in identifying potential human health and environmental risks. If UA has any questions regarding ADEQ's reasoning behind the proposed updates, please reach out to Gav Orman via phone at (602) 771-8727 or via email at orman.gav@azdeq.gov.</p>		
138	Appendix L – Development of Operational Parameters for SVE System	<p>Appendix L, General: Was this document adapted and updated from the one done by AMEC? First paragraph feels misleading – if this is a repeat of the same document produced by AMEC, please indicate what has been updated and make sure it's very clear when this work was done. If it was updated and adapted by Wood in 2021, please change the old information to be in past tense.</p>	<p>For reference, AMEC became Wood in 2018.</p> <p>This document was inadvertently updated to the Wood letterhead and draft application submittal date. This document should not have been updated as no changes were made to the original document.</p> <p>The original sealed document is being submitted with this version of the application.</p>	
139	Appendix L – Development of	<p>Appendix L, General: If this document was updated, please alter the text of Section 2.0 to be accurate for the current</p>	<p>See comment above.</p>	

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	Operational Parameters for SVE System	state. Particularly, the sentence “Operating the SVE system is not required by the current RCRA permit..” should be altered to show that the SVE system is required per the 2012 permit.		
140	Appendix L – Development of Operational Parameters for SVE System	Appendix L, Page 12: The last sentence before Section 5.3 states 9.2 scfm, but should either state 9.25 scfm or 9.3 scfm. Please correct.	The value of 9.3 scfm in the semi-annual reporting. No changes have been made to this document.	
141	Appendix L – Development of Operational Parameters for SVE System	Appendix L, Table 2: Are hydraulic conductivity values provided in this table the actual values (identified based on data taken), or are they theoretical/estimated? Please clarify.	The values came from the original model inputs developed by HGC, which was based upon site specific soil data.	
142	Appendix L – Development of Operational Parameters for SVE System	Appendix L, Figures: Remove “Draft” from figures and other tables	This is no longer applicable. The original document does not contain draft figures.	
143	Appendix Q – Training Plan	Appendix Q, Section 4.d: Correct formatting of second paragraph.	Formatting has been corrected.	
144	Appendix Q – Training Plan	Appendix Q, Exhibit 2 and 3: These exhibits were not included in the electronic copy. Please add them to the document.	Exhibits are attached.	

August 16, 2021

Ms. Gav Orman- Hazardous Waste Permits & Support Unit
Arizona Department of Environmental Quality
1110 West Washington Street
Phoenix, Arizona 85007

**Subject: Post-Closure Permit Renewal – Notice of Intent to Apply
Page Trowbridge Ranch Landfill – EPA ID No. AZD 980 665 814**

Dear Ms. Orman,

In accordance with AAC R18-8-270.A, this letter represents Notice of Intent from the University of Arizona to apply for renewal of the Post-Closure Permit for the Page-Trowbridge Ranch Landfill. The University of Arizona and the Arizona Department of Administration, Risk Management Division will be utilizing the consulting engineering services of Wood Environmental for preparation of the permit renewal application.

A renewal application for permit renewal will be submitted to ADEQ for review no later than December 31, 2021. The UA will provide to ADEQ the required application fee of \$20,000 and acknowledges the associated review fees charged at a rate of \$136.00 per hour.

We do wish to schedule an administrative completeness review meeting with your office, UA, ADOA-RMD, and representatives from Wood Environmental. We would like to schedule this meeting in advance of the application submittal to review the expiring permit, and identify any areas of emphasis or concern to ADEQ so these can be addressed in the application.

Best regards,



Steve Holland ARM CRM DRM
Chief Risk Officer, University of Arizona

Cc: Erik Lohman, Doug Brown – ADOA-RMD
Julie Hamilton, Doug Fisher – Wood Environmental
Jeff Christensen, Herb Wagner – UA Risk Management



Gavrielle Orman <orman.gav@azdeq.gov>

RE: [EXT]Transmittal of Notice of Deficiencies for Page-Trowbridge Ranch Landfill's Permit Application

1 message

Delgado, Miguel - (mdelgado1) <mdelgado1@arizona.edu>
To: Gavrielle Orman <orman.gav@azdeq.gov>

Wed, Mar 2, 2022 at 12:59 PM

Hi Gav,

Thanks for the FYI on the application fee. We can briefly discuss this during tomorrow's meeting.

As for the meeting- Here is a list of the particular bullet points in the NOD that we would like to discuss/seek clarification:

- 25
- 26/129
- 51
- 52/60
- 115
- 137

Thanks again, have a nice afternoon!

Miguel

**Miguel O. Delgado, ARM-P, CRM, AINS**Chief Risk Officer
Risk Management Services
THE UNIVERSITY OF ARIZONAUniversity Services Annex West, B250
PO Box 210300 | Tucson, AZ 85721
Office: 520-621-5392
mdelgado1@arizona.edu
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Working together to expand human potential,
explore new horizons and enrich life for all.Integrity • Compassion • Exploration
Adaptation • Inclusion • Determination

From: Gavrielle Orman <orman.gav@azdeq.gov>

Sent: Tuesday, March 1, 2022 2:22 PM

To: Delgado, Miguel - (mdelgado1) <mdelgado1@arizona.edu>

Subject: Re: [EXT]Transmittal of Notice of Deficiencies for Page-Trowbridge Ranch Landfill's Permit Application

External Email

Miguel,

Hope you're having a good week as well. Sounds good to me - looking forward to touching base with you all!

FYI, the application fee of \$20,000 was exhausted as of 2/28, so UA will begin receiving bills for this permit application starting at the end of March. We can discuss more Thursday if you'd like to!

Kind Regards,

Gav Orman

Permit Writer/Pollution Prevention Engineer

Hazardous Waste Permits & Support Unit

Phone: (602) 771-8727



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On Tue, Mar 1, 2022 at 2:12 PM Delgado, Miguel - (mdelgado1) <mdelgado1@arizona.edu> wrote:

Hi Gav,

I hope your week is going well. I believe we just want to discuss several of the items in the deficiencies and provide you with updates.

I don't believe it will be anything that you wouldn't be able to either answer immediately or research and get back with us.

Thanks, hope you're enjoying the beautiful weather!

Miguel



Miguel O. Delgado, ARM-P, CRM, AINS

Chief Risk Officer
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From: Gavrielle Orman <orman.gav@azdeq.gov>

Sent: Tuesday, March 1, 2022 2:07 PM

To: Delgado, Miguel - (mdelgado1) <mdelgado1@arizona.edu>

Subject: Re: [EXT]Transmittal of Notice of Deficiencies for Page-Trowbridge Ranch Landfill's Permit Application

External Email

Good afternoon, Miguel!

Do you have an agenda prepared for our meeting on Thursday? Or an idea of what you'd like to discuss/have questions about?

I want to make sure I come prepared to answer! Thanks.

Kind Regards,

Gav Orman

Permit Writer/Pollution Prevention Engineer

Hazardous Waste Permits & Support Unit
Phone: (602) 771-8727



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On Fri, Feb 18, 2022 at 1:22 PM Delgado, Miguel - (mdelgado1) <mdelgado1@arizona.edu> wrote:

Hi Gav,

Happy Friday! Let's go with 3:00PM – 4:00PM. Doug Brown and Erik Lohman from ADOA (copied) are planning to join the call as well. I will send a Zoom invitation shortly.

We can prepare an agenda for the meeting.

Also, after internal discussions, we have decided not to hold any formal meetings/open houses at PTRL prior to the public comment period.

Thanks, have a nice weekend!
Miguel



Miguel O. Delgado, ARM-P, CRM, AINS

Chief Risk Officer
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THE UNIVERSITY OF ARIZONA

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From: Gavrielle Orman <orman.gav@azdeq.gov>
Sent: Thursday, February 17, 2022 3:37 PM
To: Delgado, Miguel - (mdelgado1) <mdelgado1@arizona.edu>
Cc: Jessica Kohls <kohls.jessica@azdeq.gov>; Christensen, Jeffrey G - (jgchrist) <jgchrist@arizona.edu>; Hamilton, Julie <julie.hamilton@woodplc.com>; Fisher, Douglas <douglas.fisher@woodplc.com>
Subject: Re: [EXT]Transmittal of Notice of Deficiencies for Page-Trowbridge Ranch Landfill's Permit Application

External Email

Miguel,

My week is going well and I hope yours is as well.

My March 3rd availability is:

- 8:00 to 11:30 am
- 2:30 to 4:00 pm

If that doesn't work, I'm pretty open March 1st and March 4th as well.

Let me know the availability of the group and I can set up a virtual meeting (via Google Meets) for that day! If that doesn't work, feel free to suggest other meeting methods. Will you be providing an agenda for the meeting, or would you like me to?

Kind Regards,

Gav Orman

Permit Writer/Pollution Prevention Engineer

Hazardous Waste Permits & Support Unit

Phone: (602) 771-8727



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On Thu, Feb 17, 2022 at 3:15 PM Delgado, Miguel - (mdelgado1) <mdelgado1@arizona.edu> wrote:

Good afternoon Gav,

I hope your week is going well. Thank you for sending over the formal NOD.

We would like to schedule a meeting with you in early March to discuss some of the deficiencies . At least for me, Thursday, March 3rd is fairly wide open. Do you have availability on 3/3?

Also, we have not made a formal decision on holding a meeting/educational open house at PTRL prior to the public comment period. Let me talk with our stakeholders and I will get back to you sooner than later.

Take care,

Miguel



Miguel O. Delgado, ARM-P, CRM, AINS

Chief Risk Officer
Risk Management Services
THE UNIVERSITY OF ARIZONA

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From: Gavrielle Orman <orman.gav@azdeq.gov>
Sent: Thursday, February 17, 2022 11:27 AM
To: Delgado, Miguel - (mdelgado1) <mdelgado1@arizona.edu>
Cc: Jessica Kohls <kohls.jessica@azdeq.gov>; Christensen, Jeffrey G - (jgchrist) <jgchrist@arizona.edu>; Hamilton, Julie <julie.hamilton@woodplc.com>; Fisher, Douglas <douglas.fisher@woodplc.com>
Subject: [EXT]Transmittal of Notice of Deficiencies for Page-Trowbridge Ranch Landfill's Permit Application

External Email

Good morning Miguel,

Attached you'll find the formal NOD for Page-Trowbridge Ranch Landfill's Post-Closure Renewal Permit Application. This sets a response date of March 21, 2022 and pauses the LTF clock until a response is received.

If you have any questions regarding this (logistically or substantially) please reach out to me, I'm happy to explain further!

Response to this NOD should be submitted electronically with both the clean PDF and tracked changes Word copies of each section and attachment. Once these are re-submitted, I will re-review to confirm the comments have been addressed. If I approve all the sections/attachments, I will request UA to send a complete physical copy of the approved application to ADEQ's office for the public comment record. Until then, please only respond electronically with the file types requested. If you have any questions or concerns regarding these comments, please give me a call!

Has UA given additional thought to potentially holding a meeting or an educational open house at PTRL prior to public comment? Last we spoke, we were on the fence about holding a pre-public comment meeting and I'm curious if you've come to a final decision on this. If you have any questions regarding the next steps in the permitting process, let me know. After I receive the response to these comments, I will put together the draft permit/administrative record for UA and EPA review.

Kind Regards,

Gav Orman

Permit Writer/Pollution Prevention Engineer

Hazardous Waste Permits & Support Unit

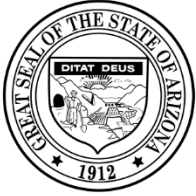
Phone: (602) 771-8727



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**NOTIFICATIONS TO CITY OF TUCSON AND PINAL
COUNTY**



Douglas A. Ducey
Governor

ARIZONA DEPARTMENT
OF
ENVIRONMENTAL QUALITY



Misael Cabrera
Director

December 20, 2021
REF: HWP-EX3467

Leo Lew, County Manager
Pinal County
PO Box 827
Florence, Arizona 85132

Re: ARS §49-111 Notification; University of Arizona, Page-Trowbridge Ranch Landfill; T9S R14 SEC S27 N24, Tucson, Arizona 85721; EPA ID # AZD 980 665 814; Place ID No. 3166; LTF ID # 92382.

Dear Mr. Lew:

This letter is in accordance with Arizona Revised Statutes (A.R.S.) §49-111, which requires the Arizona Department of Environmental Quality (ADEQ) to notify appropriate city or county jurisdictions following receipt of a permit application. This letter is for information purposes only, and no response is expected nor required.

On December 15, 2021, University of Arizona (UA) submitted a permit application to renew the post-closure hazardous waste permit for Page-Trowbridge Ranch Landfill (PTRL) to ADEQ. PTRL is located at T9S, R14, SEC S27, N24 in Tucson, Arizona.

UA currently maintains PTRL's post-closure care including groundwater monitoring and soil vapor monitoring of the closed landfill cells. Upon ADEQ's approval of the hazardous waste renewal permit application, UA will continue to maintain PTRL's post-closure care for another ten years.

If you have any questions, please contact me via phone at (602) 771-8727 or by email at orman.gav@azdeq.gov.

Sincerely,

Gav Orman
Environmental Engineering Specialist
Hazardous Waste Permits and Support Unit
Waste Programs Division

Main Office

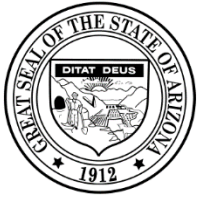
1110 W. Washington Street • Phoenix, AZ 85007
(602) 771-2300

Southern Regional Office

400 W. Congress Street • Suite 433 • Tucson, AZ 85701
(520) 628-6733

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Douglas A. Ducey
Governor

ARIZONA DEPARTMENT
OF
ENVIRONMENTAL QUALITY



Misael Cabrera
Director

December 20, 2021
REF: HWP-EX3468

Tascha Spears, Public Health Director
Pinal County
PO Box 2945
Florence, Arizona 85132

Re: ARS §49-111 Notification; University of Arizona, Page-Trowbridge Ranch Landfill; T9S R14 SEC S27 N24, Tucson, Arizona 85721; EPA ID # AZD 980 665 814; Place ID No. 3166; LTF ID # 92382.

Dear Dr. Spears:

This letter is in accordance with Arizona Revised Statutes (A.R.S.) §49-111, which requires the Arizona Department of Environmental Quality (ADEQ) to notify appropriate city or county jurisdictions following receipt of a permit application. This letter is for information purposes only, and no response is expected nor required.

On December 15, 2021, University of Arizona (UA) submitted a permit application to renew the post-closure hazardous waste permit for Page-Trowbridge Ranch Landfill (PTRL) to ADEQ. PTRL is located at T9S, R14, SEC S27, N24 in Tucson, Arizona.

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If you have any questions, please contact me via phone at (602) 771-8727 or by email at orman.gav@azdeq.gov.

Sincerely,

Gav Orman
Environmental Engineering Specialist
Hazardous Waste Permits and Support Unit
Waste Programs Division

Main Office

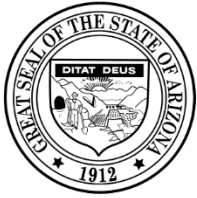
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Governor

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Misael Cabrera
Director

December 20, 2021
REF: HWP-EX3469

Regina Romero, Mayor
City of Tucson
255 West Alameda
Tucson, Arizona 85701

Re: ARS §49-111 Notification; University of Arizona, Page-Trowbridge Ranch Landfill; T9S R14 SEC S27 N24, Tucson, Arizona 85721; EPA ID # AZD 980 665 814; Place ID No. 3166; LTF ID # 92382.

Dear Ms. Romero:

This letter is in accordance with Arizona Revised Statutes (A.R.S.) §49-111, which requires the Arizona Department of Environmental Quality (ADEQ) to notify appropriate city or county jurisdictions following receipt of a permit application. This letter is for information purposes only, and no response is expected nor required.

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UA currently maintains PTRL's post-closure care including groundwater monitoring and soil vapor monitoring of the closed landfill cells. Upon ADEQ's approval of the hazardous waste renewal permit application, UA will continue to maintain PTRL's post-closure care for another ten years.

If you have any questions, please contact me via phone at (602) 771-8727 or by email at orman.gav@azdeq.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Gav Orman".

Gav Orman
Environmental Engineering Specialist
Hazardous Waste Permits and Support Unit
Waste Programs Division

Main Office

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Governor

ARIZONA DEPARTMENT
OF
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Misael Cabrera
Director

December 20, 2021
REF: HWP-EX3470

Michael Ortega, City Manager
City of Tucson
255 West Alameda
Tucson, Arizona 85701

Re: ARS §49-111 Notification; University of Arizona, Page-Trowbridge Ranch Landfill; T9S R14 SEC S27 N24, Tucson, Arizona 85721; EPA ID # AZD 980 665 814; Place ID No. 3166; LTF ID # 92382.

Dear Mr. Ortega:

This letter is in accordance with Arizona Revised Statutes (A.R.S.) §49-111, which requires the Arizona Department of Environmental Quality (ADEQ) to notify appropriate city or county jurisdictions following receipt of a permit application. This letter is for information purposes only, and no response is expected nor required.

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If you have any questions, please contact me via phone at (602) 771-8727 or by email at orman.gav@azdeq.gov.

Sincerely,

Gav Orman
Environmental Engineering Specialist
Hazardous Waste Permits and Support Unit
Waste Programs Division

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GROUNDWATER MONITORING REPORTS 2019 TO 2021
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RESPONSE TO COMMENTS

**RESPONSE TO COMMENTS SUMMARY FOR
DRAFT HAZARDOUS WASTE PERMIT
UNIVERSITY OF ARIZONA, PAGE-TROWBRIDGE RANCH LANDFILL
EPA ID NO. AZD 980 665 814**

Arizona Administrative Code (A.A.C) R18-8-271.O requires the Arizona Department of Environmental Quality (ADEQ) to respond to all significant comments made on any draft Permit within the public comment period. ADEQ has responded to all such comments in this Response to Comments (RTC) Summary.

On April 20, 2022, a public notice was posted in the *Arizona Daily Star* and *La Estrella de Tucson* announcing the public comment period for the draft hazardous waste permit for the Page-Trowbridge Ranch Landfill (PTRL) site owned by the University of Arizona (UA). The public notice was also published on ADEQ's webpage. PTRL is located approximately seven miles west of Oracle, AZ and thirty (30) miles north of Tucson. The public comment period opened on April 25, 2022 and closed on June 9, 2022. No comments were received.

ADEQ-Initiated Changes to the Final Permit

The following changes were made by ADEQ to the Final Permit. These changes are minor clarifications and corrections, and updates to remain consistent with State and Federal guidance. None of the changes are deemed to be significant enough to require a public notice or extension to the public comment period.

1. Approval/Cover Page has been edited to clarify the timeframe for the post-closure care period at PTRL - "Post-closure care for PTRL began in 2001. The post-closure care period is for 30 years and begins on the effective date of this Permit. The Director may extend this post-closure care period if the Director finds that the extended period is necessary to protect human health and the environment. UA will be expected to submit a permit application to renew the post-closure care period 180-days prior to this Permit's expiration."
2. Added severability clause language as Permit Condition I.C.4 – "The provisions of this Permit are severable, and if any provision of this Permit, or the application of any provision of this Permit to any circumstance, is held invalid, the application of such provision to other circumstances and the remainder of this Permit shall not be affected thereby. [A.A.C. R18-8-270.A and 40 CFR §124.16(a)]"
3. Edited Permit condition II.I.5 to reflect the 2-mile radius dictated in ADEQ's Substantive Policy Number 1103.2016 instead of the 1-mile radius included in the Draft Permit.
4. Added text to Permit Condition IV.B.2 to clarify operation of soil vapor extraction (SVE) system, in alignment with Attachment E of the Permit (SVE Operation and Maintenance)

– “The SVE system is still operated per the conditions of Permit Attachment E (Soil Vapor Extraction System Operation and Maintenance). The SVE system lessens the volume of VOC contaminated soil vapor by treating extracted soil vapor with granular activated carbon. In the event that there is an identified increase in contamination, actions will be taken to operate the SVE system more conservatively.”