



Projection: NAD 83 UTM Zone 18N
Scale: 1:50,000
Units: Meters
Coordinate System: UTM
Map Datum: NAD 83
Map Projection: UTM
Map Scale: 1:50,000
Map Accuracy: ± 1.00 meters
Map Date: 10/15/2010

U.S. EPA Region 9
 U.S. Environmental Protection Agency
 Office of Research and Development
 Las Vegas, NV 89162

Water Sample Data

| Map ID | Ranking | Sample Name | Sample ID | Field Type | Longitude | Latitude |
|--------|---------|-----------------------------|----------------|------------|----------------|--------------|
| 1 | 21 | Truck Cab Spring | KY980912C.W001 | Spring | 109.46.48.002 | 37.12.07.91 |
| 2 | 20 | Stockpile Well | KY980912C.W004 | Well | 109.51.54.815 | 36.56.10.014 |
| 3 | 28 | Kilohohi-ah Spring | KY980912C.W002 | Spring | 109.51.58.626 | 36.55.36.593 |
| 4 | 2 | Arroyo Well C-1 | KY980912C.W012 | Well | 109.51.58.896 | 36.52.22.649 |
| 5 | 13 | Truck FT-519 | KY980912C.W002 | Wind Mill | 109.46.23.9737 | 36.53.24.852 |
| 6 | 7 | Truck East Of Chapter | KY980912C.W005 | Wind Mill | 109.48.29.804 | 36.53.54.282 |
| 7 | 22 | Shallow Well Adakai | KY980912C.W005 | Well | 109.54.54.3665 | 36.52.52.528 |
| 8 | 26 | Sand Spring | KY980912C.W007 | Spring | 110.19.19.177 | 36.55.15.119 |
| 9 | 8 | Monument Valley Park | KY980912C.W008 | Well | 110.48.23.239 | 36.55.53.544 |
| 10 | 18 | Truck Spring | KY980912C.W009 | Spring | 110.12.12.152 | 36.54.11.190 |
| 11 | 15 | Monument Valley High School | KY980912C.W009 | Well | 110.42.42.118 | 37.0.20.163 |
| 12 | 14 | Truck RA-1 | KY980912C.W010 | Wind Mill | 110.12.12.150 | 37.12.12.150 |
| 13 | 25 | Truck RA-138 | KY980912C.W010 | Wind Mill | 110.15.15.239 | 37.2.32.348 |
| 14 | 4 | Monolith Spring | KY980912C.W064 | Spring | 110.22.22.276 | 36.44.18.019 |
| 15 | 24 | Truck Cab Spring | KY980912C.W006 | Spring | 110.19.19.177 | 37.0.20.163 |
| 16 | 17 | Shallow Well 18 Captain | KY980912C.W002 | Well | 110.12.12.150 | 36.57.16.074 |
| 17 | 6 | Truck KC-401 | KY980912C.W002 | Spring | 110.17.17.177 | 36.56.56.478 |
| 18 | 31 | Truck RA-299 | KY980912C.W001 | Wind Mill | 110.17.17.177 | 36.56.56.478 |
| 19 | 12 | Well FT-519 | KY980912C.W001 | Well | 110.12.12.150 | 36.51.16.440 |
| 20 | 3 | KA-PT-15.22 Spring | KY980912C.W009 | Spring | 110.22.22.276 | 36.53.53.544 |
| 21 | 11 | Ramp Spring | KY980912C.W001 | Spring | 110.11.11.111 | 36.48.26.342 |
| 22 | 5 | Apex Spring | KY980912C.W001 | Spring | 110.11.11.111 | 36.44.18.019 |
| 23 | 19 | Monolith Spring | KY980912C.W064 | Spring | 110.22.22.276 | 36.44.18.019 |
| 24 | 16 | Kayenta Chapter House | KY981009C.W002 | Well | 110.15.15.239 | 36.43.27.936 |
| 25 | 29 | Baby Rock Spring #4-1 | KY980912C.W001 | Spring | 110.11.11.111 | 36.44.18.019 |
| 26 | 27 | Truck RA-138 | KY981009C.W003 | Wind Mill | 110.17.17.177 | 36.43.27.936 |
| 27 | 19 | Kan Rock Spring | KY981009C.W001 | Spring | 110.11.11.111 | 36.44.18.019 |
| 28 | 23 | Truck FT-519 | KY981009C.W004 | Wind Mill | 110.12.12.150 | 36.41.34.129 |
| 29 | 29 | Shoong Chapter House | KY980912C.W001 | Spring | 110.11.11.111 | 36.44.18.019 |
| 30 | 10 | Guiding Well | KY981009C.W003 | Well | 110.48.48.307 | 36.53.36.549 |
| 31 | 30 | Monument Pass Well | KY981009C.W004 | Well | 110.13.13.131 | 37.12.12.150 |

Water Sample Risk Assessment Ranking
 Risk in Respect to Stable and Radioactive Materials
 Ranking from Lower Risk (1) to Higher Risk (31)

| Ranking | Map ID | Sample Name | Sample ID |
|---------|--------|-----------------------------|----------------|
| 1 | 29 | Shoong Chapter House | KY980912C.W002 |
| 2 | 4 | Arroyo Well C-1 | KY980912C.W012 |
| 3 | 20 | KA-PT-15.22 Spring | KY980912C.W009 |
| 4 | 14 | Monolith Spring | KY980912C.W064 |
| 5 | 22 | Apex Spring | KY980912C.W001 |
| 6 | 17 | Truck KC-402 | KY980912C.W002 |
| 7 | 6 | Truck East Of Chapter | KY980912C.W005 |
| 8 | 26 | Monument Valley Park | KY980912C.W008 |
| 9 | 23 | Truck KC-305 | KY980912C.W001 |
| 10 | 30 | Guiding Well | KY980912C.W003 |
| 11 | 21 | Ramp Spring | KY980912C.W001 |
| 12 | 19 | Well FT-519 | KY980912C.W001 |
| 13 | 5 | Truck FT-519 | KY980912C.W002 |
| 14 | 12 | Well FT-519 | KY980912C.W001 |
| 15 | 11 | Monument Valley High School | KY980912C.W009 |
| 16 | 24 | Kayenta Chapter House | KY981009C.W002 |
| 17 | 16 | Shallow Well 18 Captain | KY980912C.W002 |
| 18 | 10 | Truck Spring | KY980912C.W009 |
| 19 | 27 | Kan Rock Spring | KY981009C.W001 |
| 20 | 2 | Truck RA-138 | KY980912C.W004 |
| 21 | 1 | Truck RA-138 | KY980912C.W004 |
| 22 | 7 | Shallow Well Adakai | KY980912C.W005 |
| 23 | 28 | Truck Cab Spring | KY980912C.W006 |
| 24 | 12 | Truck RA-138 | KY980912C.W004 |
| 25 | 15 | Sand Spring | KY980912C.W007 |
| 26 | 3 | Kilohohi-ah Spring | KY980912C.W002 |
| 27 | 3 | Baby Rock Spring #4-1 | KY980912C.W001 |
| 28 | 31 | Monument Pass Well | KY981009C.W004 |
| 29 | 29 | Truck RA-138 | KY980912C.W004 |
| 30 | 31 | Truck RA-299 | KY980912C.W001 |

Sample Sites

- Low Risk: Total Cancer Risk is less than or equal to 1E-05 and Hazard Index is less than or equal to 1 and Lead is less than 4 and U is less than 30
- Minor Risk: Total Cancer Risk is less than or equal to 1E-04 but greater than 1E-05 or Hazard Index is less than 10 but greater than 1 or Lead is less than 12 but greater than 4 and U is less than 30
- Medium Risk: Total Cancer Risk is greater than 1E-04 or Hazard Index is greater than 10 or Lead is greater than 15 or U equal to or greater than 30

Aerial Radiation Contours

| Contour Level (mSv/yr) | Contour Level (rem/yr) |
|------------------------|------------------------|
| 30 | 3.5 |
| 100 | 11.5 |
| 170 | 19.0 |
| 230 | 26.5 |
| 300 | 34.0 |
| 400 | 45.5 |

Historical Mine Locations

- Mine: (Symbol)
- Deposit: (Symbol)

Land Designations

- Navajo Nation Boundary
- Chapter Boundary
- Aerial Survey Boundary
- Elevation contour (meters)
- Hydrography
- State Land
- Private Land
- Woods - brushwood

United States Environmental Protection Agency
 Abandoned Uranium Mines Project

MONUMENT VALLEY STUDY AREA

Aerial Flight Zones, Water Sample Locations, and Radiation Contours

CH2M HILL MVS08.10.06.01.0