

**U.S. Environmental Protection Agency, Region IX  
CWA Compliance Office  
Report of Clean Water Act Inspection**

***Site Location:*** State Route 179 Improvement Project  
Between Mile Posts 310.5 and 313.8  
Oak Creek/Sedona, AZ

***Date and Time of Visit:*** February 5, 2010, 8:30 a.m. – 1:30 p.m.

***Site Developer:*** Arizona Department of Transportation  
Office of Environmental Services  
206 S. 17<sup>th</sup> Avenue, Mail Drop 102A  
Phoenix, AZ 85007  
Permit No: AZS000018-2008  
Contact: Chuck Howe, ADOT Environmental  
Coordinator, Steve Boschen, Resident Engineer, and  
Kurtis Harris, Tetra Tech SWPPP Contractor

***Site Operator:*** Fisher Sand and Gravel dba Southwest Asphalt Paving  
1302 W. Driver's Way  
Tempe, AZ 85284  
Permit No: 36435  
Contact: Mike Zunitch

***Conducted by:*** Ellen Blake, Enforcement Officer  
Rebecca Glyn, Life Scientist  
U.S. Environmental Protection Agency, Region IX  
CWA Compliance Office (EPA)

***Accompanied by:*** Kent Haugerud, ADEQ  
Robert "Buck" Olberding, ADEQ  
Sallie McGuire, ACOE

***Report Prepared by:*** Ellen Blake, EPA

***Completed on:*** March 11, 2010

On February 5, 2010, EPA inspectors Ellen Blake and Rebecca Glyn met with representatives of ADOT (Kurtis Harris (Tetra Tech contractor)) and Fisher Sand and Gravel (Mike Zunitch) at the State Route 179 Oak Creek Bridge Improvement Project. Steve Boschen, Resident Engineer (Point Engineering) joined the inspection around 11 a.m. Accompanying this group were Kent Haugerud and Buck Olberding of ADEQ's Northern Regional Office and Sallie McGuire of the Army Corps of Engineers (ACOE), Los Angeles District, Phoenix Office. The purpose of the inspection was to evaluate compliance with the individual MS4 permit issued to ADOT (MS4 Permit) and Fisher's compliance with Arizona's Construction General Permit (CGP). Additionally, EPA and ACOE evaluated compliance with the CWA Section 404 permit issued to ADOT. The inspection began at 8:30 a.m. at the Oak Creek Pedestrian Bridge, located in Sedona, AZ.

Site Description: This project is a large, linear road improvement project. The areas of concern for this inspection included the improvements to State Route 179 between the village of Oak Creek and the City of Sedona, which discharge to Oak Creek through culverts and un-named tributaries. Additionally, within Sedona, ADOT/Fisher is working within Oak Creek to replace a vehicle bridge on SR 179. ADOT/Fisher has also installed a pedestrian bridge across Oak Creek in the same area. Oak Creek is a perennial river, which flows approximately 35 miles south to the Verde River. The Verde River is a perennial river, which flows approximately 70 miles from its confluence with Oak Creek to Horseshoe Reservoir. Additionally, ADEQ has designated Oak Creek as a Unique water under Arizona Administrative Code R18-11-112, which triggers additional monitoring and sampling requirements under the MS4 Permit and the CGP.

Observations: The inspection began at the eastern end of the pedestrian bridge, above the Garland slope. This slope is directly above the active channel (see Photos 0003, 0044). The slope was disturbed without adequate best management practices (BMPs) installed. At the foot of the slope were three 'gator-eels' (heavy logs to slow the flow of water). At the top of the slope, a small basin was installed to slow the flow of water (see Photo 0045). This basin was undersized, given the amount of run-on entering the site at this location. This slope has been unprotected since January 9, 2010, when ADOT/Fisher removed the last bridge abutment. Prior to the January 19-22 storm event, ADOT/Fisher installed three steel I-beams across the slope in an attempt to stabilize the slope. Because the I-beams served as dams rather than filters, they were inadequate and the slope eroded underneath and around the beams, discharging sediment to Oak Creek.

ADOT/Fisher monitors the weather forecasts frequently. As the project involves work in an active stream channel, ADOT also monitors warming trends to determine when snow melt will result in increased flows. However, although rain was forecast for the weekend, ADOT/Fisher had not made plans to address the exposed Garland slope. During the inspection, I spoke with them at length about this area and made several suggestions for possible BMPs until the permanent retaining wall is constructed.

ADOT/Fisher is working within Oak Creek channel to install pylons to support the bridge. During the inspection, flow in Oak Creek channel was restricted to the eastern side of the creek bed (see Photo 0005). The area where ADOT/Fisher is working

is currently designed to function as a sediment basin (see Photo 0046). Prior to the January 19-22 storm event, ADOT/Fisher used small check dams in this area to filter the runoff before it entered Oak Creek. However, before the January storm event, large rocks (9-24") were brought into the site to serve as a coffer dam. These rocks will later be used in gabion baskets to be placed elsewhere on site. According to Harris, the emergency spillway on the coffer dam functioned as designed during the January storm event. However, the void spaces between the large cobbles and boulders are too large to serve as an effective filter. We observed large amounts of fines deposited on the downstream side of the coffer dam (see Photos 0024, 0027-32). Additionally, ¾" gravel was placed in the work area to provide a more stable work surface. According to Harris, after the last pylon is set, the channel will be dug out and this material will be removed as much as possible; however it is being pressed very deeply into the creek bed and will likely be very difficult to remove.

As ADOT/Fisher installs pylons for the bridge, they must drill down into the creek bed and pump out water that is full of fine sediments. ADOT/Fisher indicated that they pump an average of 15-20,000 gpd. Disposal of this water appears to have been an issue for ADOT/Fisher. A review of the SWPPP shows that disposal of this material has occurred throughout the site, utilizing different BMPs of varying success. According to ADOT/Fisher, at one point, a contractor directly pumped the water, without filtration, into a tributary of Oak Creek without permission from ADOT/Fisher. That contractor was fired. The BMPs used immediately prior to the inspection, as well as the BMP used during the inspection, were inadequate. According to ADOT/Fisher, prior to the current BMP, ADOT/Fisher pumped the water into a pump truck, hauled it to the Chapel Staging Yard (approximately 1 mile south) and attempted to filter the water through straw wattles before discharging to a road-side ditch. However, the sediment load was too high and the wattles blew out (see Photo 0049). Additionally, the straw wattles were not effective at filtering the sediment laden water and we observed evidence of significant discharge of silty-clay soils (see Photos 0051-52, 0056-62). We traced the discharge to a tributary of Oak Creek. ADOT/Fisher attempted to install check dam BMPs along the drainage ditch but they were overtopped and blown-out. They were also using a culvert outlet, located about 150' upstream of the tributary, as a stilling basin. It was filled with sediment 2-3 feet deep and needed to be cleaned out prior to any rain or other discharge (see Photos 0059-61). We observed straw wattles placed in the drainage ditch to slow the flow of water. They were new and had been recently replaced (see Photo 0063).

The BMP in use during the inspection for this pump water discharge at the Chapel staging yard was a poorly designed settling basin (see Photos 0047, 0053, 0055, 0062, and 0064) that discharged to the sediment-laden drainage ditch described above. The basin was made of three K-rails and lined with filter-fabric wrapped sediment logs. However, the basin was over 90% full and sediment covered the sediment logs (see Photo 0055). According to Fisher, another pump delivery was scheduled for that afternoon, before the basin could be cleaned out and repaired. On February 5, 2010 (the day of the inspection) a BMP update sheet was placed in the SWPPP, describing this BMP. This could indicate that the SWPPP was not being updated in a timely fashion. As described above, this BMP is undersized and inadequate. I instructed ADOT/Fisher representatives

on site to clean it out and suggested a range of options to repair the BMP before using it again. We also discussed moving this BMP to an upland area above the drainage ditch.

ADOT/Fisher is also working on SR 179 above Morgan Wash, which flows less than ¼ mile to Oak Creek. We observed evidence of storm water pooling across the highway at this location. According to ADOT/Fisher, this storm water is pumped and discharged into a small filtering basin built into the slope above Morgan Wash (see Photos 0078-79). We did not observe any pumping or discharging during the inspection, but the filtering area appeared to be undersized. Additionally, water discharged from this area and the small filtering basin will cross disturbed soil before entering Morgan Wash (see Photo 0079).

Good Housekeeping: ADOT/Fisher indicated that all concrete washout occurs in small plastic kiddie-pools. When I pointed out a concrete wash-water spill at the bridge site, Harris stated that it probably resulted from moving the kiddie-pool before the concrete had set (see Photo 0038). We visited three staging yards: 1) Chapel, 2) Morgan, and 3) Highland. ADOT/Fisher treats the pumped drill water from the Oak Creek bridge site at the Chapel staging yard (see earlier discussion). We observed several unlabelled 5-gallon buckets of oily waste that were not stored within secondary containment at the Morgan staging yard (see Photo 0071). According to Harris, previously there had been a roll-off container where contaminated sediments were placed. Additionally, there were small containers (daily use) of gasoline, oils and other chemicals scattered throughout the yard, not placed under cover or in secondary containment (see Photo 0074). Self-inspection reports dating back to at least May, 24, 2008 indicate issues similar to what I observed for storage of daily use materials. We observed staining on the ground and there was no spill kit readily available (see Photo 0073). ADOT/Fisher did not have a key to unlock the Highland Yard so we did not inspect that area.

Paperwork: I reviewed the SWPPP on-site. ADOT's copy of the SWPPP was on site; however Fisher's copy was not. I requested a copy of Fisher's SWPPP to be sent to EPA and it was received on February 23, 2010. A review of the inspection reports sent to EPA on February 23, 2010 indicates there may be problems with the inspections. For instance, we inspected the site on February 5, 2010 and noted the above problems. ADOT/Fisher also conducted a weekly inspection of the site on February 5, 2010. The inspector certified that the site was "in compliance with the SWPPP and Permit No. ASG2008-001," with the exception of some relatively minor BMP issues. The site inspector did not mention any problems with pump water discharge at the Chapel staging yard, the Garland slope BMPs, or the coffer dam. From the inspection report it is not apparent that the inspector even visited the Chapel staging yard.

A review of the paperwork indicates ADOT/Fisher may have problems with how and when BMPs issues are corrected. For instance, on January 8, 2010 the inspector noted that "old concrete wash out" spills needed to be removed from the Morgan Yard. The inspector 'verified' that this was corrected on January 15, 2010 by dating and initialing the form. This same "corrective action" was needed at each of the next four inspections until finally on January 29, 2010, the "corrective action" was changed to

“clean up of spills from overflowed concrete wash outs.” It appears that either the concrete wash out was too small or needed more frequent maintenance.

Accompanying most inspection reports is a “Grading and Stabilization Record.” Since the first report was completed in February 2008, ADOT/Fisher has consistently recorded that the stabilization BMPs have been in ‘good’ condition. In fact, the reports from August 24, 2009 through February 5, 2010 were photocopies of the previous report with the date changed. It does not appear that the inspector actually viewed the BMPs while completing the report. For instance, we observed the BMPs at the Morgan Wash area on February 5, 2010 (see Photos 0077-0080). The straw wattles were buried in sediment and the BMP designed to filter pumped water will discharge over disturbed soil before entering Morgan Wash. The entry for this location (between Stations 760 and 775, as labeled on construction drawings found in the SWPPP) in the Grading and Stabilization Record indicated that the area was stabilized with temporary BMPs and that they were in good condition. Similar problems were noted for the entry in the Grading and Stabilization Record for Chapel staging yard. We noted significant amounts of sediment discharge, overtopping BMPs, but the entry for this area (located between Stations 670 and 695) indicates that the area was stabilized with temporary BMPs in good condition.

Existing dischargers were required to begin complying with the new Construction General Permit by June 27, 2008 (120 days after it was issued). The 2008 CGP and ADOT MS4 Permit require weekly inspections. For sites located within ¼ mile of a unique water body, weekly visual observations of all discharge points are required. Additionally, the 2008 CGP requires that visual observations must be conducted within one business day of all rain events of 0.5 inches or greater within 24 hours. ADOT/Fisher switched from biweekly to weekly inspections in a timely fashion. However, the 2008 CGP and the ADOT MS4 Permit also require photo-documentation of all visual monitoring. ADOT/Fisher does not appear to have completed photo-documentation.

We spoke with ADOT/Fisher about the required Monitoring Plan during the inspection. They appeared knowledgeable about the sampling protocol and indicated that they were aware of what the appropriate follow-up would be. However, the Monitoring Plan in the SWPPP is incomplete and inaccurate. For instance, it calls for quarterly visual monitoring when the permit requires weekly visual monitoring. Additionally, it exempts the site from analytically monitoring if the previous rain event was less than 72 hours prior. The 2008 CGP or ADOT MS4 Permit contains no such exemption. There is an un-dated amendment to the Monitoring Plan (Amendment 1) which requires turbidity to be tested twice per day while work is occurring “within the creek boundaries.” If turbidity exceeds 8 NTU, work is to be suspended until turbidity readings are within the range of 1-3 NTU. Work had been occurring within the banks of Oak Creek for several months, however, turbidity readings were only taken once per day. The permit requires that if there is a 25% or more increase in turbidity readings between the upstream and downstream locations, the operator shall evaluate and replace, maintain, or install additional BMPs as necessary. The Monitoring Plan in the SWPPP makes no reference

to this trigger. As such, it is hard to determine if ADOT/Fisher has complied with this requirement.

404 Permit Review: The Corps permitted the Site under Nationwide Permit 33 and 14. Nationwide 33 requires that all temporary fill be entirely removed to upland areas. It is unlikely that ADOT/Fisher will be able to remove the ¾” gravel used as bedding material.

Special Condition #4 in ADOT’s CWA Section 404 Permit requires that construction limits for all work within waters of the U.S. to be staked or flagged prior to construction, and that these perimeter markers be maintained for the life of the project. ADOT/Fisher could not find the stakes or flags, nor did they seem to know the construction limits for work within waters of the U.S.

The inspection was concluded at 1:30 p.m.

Attachment (1)

1. Photograph log of the February 5, 2010 inspection, labeled IMGP0002-IMGP0087.

## ATTACHMENT 1

### **Photograph Log for EPA's 02/05/10 Site Visit to AZ DOT SR 179 Improvement Project – Oak Creek Bridge to Chapel Road, Yavapai and Coconino Counties, Arizona**

*All photographs were taken with a digital camera by Rebecca Glyn or Ellen Blake, CWA Compliance Office, EPA Region IX.*

#### **Oak Creek Bridge Site:**

IMG0002 – Title shot

IMG0003 – Taken from top of Garland (east) slope of Oak Creek, looking west toward Tlaquepaque (west) slope, Oak Creek's confined channel, and vehicular bridge. Note that steel girders have been removed from Garland slope after they were compromised during Jan 15-20<sup>th</sup>, 2010 storm. Gator eels installed at toe of slope.

IMG0004, 05 – Taken from top of Garland slope of Oak Creek, looking west toward Oak Creek channel and vehicular and pedestrian/utility bridges. Note imported materials used to build coffer dam in creek bed.

IMG0006 – From north side of pedestrian bridge, looking north toward west braid of Oak Creek, upstream of bridges. Note sediment basin between creek and access road used for occasional filtering of sediment-laden water collected in coffer dam. Filter fabric is sagging from north side of basin, creating escape route for fine sediment. On-site contractors noted that this sediment basin has never over-topped.

IMG0007 – From northwest corner of project site at top of access road, looking east toward Garland slope and pedestrian bridge. Note sediment from access road deposited on rock bank adjacent to creek.

IMG0008 – From under pedestrian bridge, west side of creek bed, facing Garland slope. Note imported boulders and gravel in creek bed work area.

IMG0009 – Same as 8. Closer view of Garland slope.

IMG0010, 11, 12 – From west side of creek facing east creek bank, north of pedestrian bridge. Sediment in vegetation is likely deposited from upstream sources.

IMG0013 – From west side of creek channel, facing east. Close up of east pedestrian bridge abutment.

IMG0014 – From west side of creek channel within coffer dam, facing Garland (east) slope. K-rails installed after January 19-22<sup>nd</sup> storm event.

IMG0015 – From west side of creek channel, below vehicular bridge, facing south toward downstream direction of Oak Creek. Cofferdam along left edge of photo was installed prior to January 19-22<sup>nd</sup> storm event.

IMG0016 – From west side of creek channel, below vehicular bridge, facing north toward upstream direction of Oak Creek.

IMG0017, 18 – From west side of creek channel, facing east to Garland slope. K-rails were installed alongside pedestrian bridge abutment as temporary slope stabilization measure after January 19-22<sup>nd</sup> storm event.

IMGP0019 – From top of north bank of coffer dam, looking south toward downstream direction of Oak Creek.

IMGP0020 – From west side of creek, northernmost pier of vehicular bridge, facing east. Creek flows from left to right of picture frame. Sediment is probably from upstream sources.

IMGP0021 – From west side of creek, northernmost pier of vehicular bridge, facing southeast. Creek flows from left to right of picture frame. Sediment is probably from the project.

IMGP0022 – Close-up of fine sediments from IMGP0021.

IMGP0023 – From top of coffer dam, facing south/downstream direction of Oak Creek (shown on left side of picture frame). Note fine sediments on creek side of coffer dam.

IMGP0024 – Close-up of fine sediments from IMGP0023.

IMGP0025 – From west side of creek, facing south/downstream direction of Oak Creek.

IMGP0026 – From west side of creek (southeast edge of coffer dam), facing southeast/downstream direction of Oak Creek. Note fine sediments in foreground.

IMGP0027 – From west side of creek (southeast edge of coffer dam), facing north toward bridges. Note fine sediment.

IMGP0028, 29 – From west side of creek (southwest edge of coffer dam) at end of grading work, facing southeast toward creek. Note fine sediments in foreground. Creek flows from left to right side of picture frame.

IMGP0030 – From west side of creek at southern edge of coffer dam, facing southeast. Note fine sediment deposit in foreground.

IMGP0031 – Same as IMGP0030, showing depth of fine sediment deposit.

IMGP0032 – From west side of creek at southern edge of grading, facing southeast toward downstream flow of creek.

IMGP0033 – From west side of creek. MP2 (monitoring point 2): sampling point downstream of bridges.

IMGP0034 – MP2 (monitoring point 2), same as IMPG0033, taken a few steps north. Note coir logs/straw wattles on east bank across creek.

IMGP0035 – From west side of creek, facing northeast toward vehicular bridge. Note fine sediment deposit in foreground.

IMGP0036 – From parking lot atop Tlaquepaque (west) slope, facing east toward Garland. Creek flows from left to right side of picture frame.

IMGP0037 – Spill kit supplies stored on west side of pedestrian bridge.



IMG0038 – From west side of pedestrian bridge, facing east toward Garland. Note concrete wash water spill.

IMG0039 – From pedestrian bridge, facing south toward vehicular bridge, downstream flow direction of creek. Overview of coffer dam and vehicular bridge construction.

IMG0040, 41 – Taken from pedestrian bridge, facing east creek bank, upstream of bridges. Creek flows from top to bottom of picture frame.

IMG0042 – Taken from pedestrian bridge, facing north toward island in braided stream channel. Creek flows from top to bottom of picture frame. Stream braids converge below pedestrian bridge.

IMG0043 – Taken from pedestrian bridge, facing northeast toward east creek bank, north of pedestrian bridge.

IMG0044 – From east end of pedestrian bridge on Garland slope, facing south toward downstream direction of creek. Note ineffectiveness of gator eel BMPs to capture sediment on slope.

IMG0045 – From east Garland slope, at end of pedestrian bridge, facing southwest toward vehicular bridge. Note undersized sediment basin in foreground and stacked I-beams, which were previously embedded in Garland slope, but failed as stabilization measure.

IMG0046 – From east Garland slope, between pedestrian and vehicular bridge abutments, facing west toward Tlaquepaque slope.

#### **Chapel Road site: Northeast corner of roundabout intersection**

IMG0047 – Facing southwest. Water pumped from Oak Creek Bridge coffer dam area is transported here, filtered through makeshift check dam, and discharged into drainage ditch that flows north and east to unnamed tributary of Oak Creek. Check dam is constructed of three K-rails lined with filter fabric. The filter fabric is slumping, resulting in sediment discharge into drainage ditch.

IMG0048 – Facing south within drainage ditch toward culvert outlet. Note relatively clean water coming from Chapel Road culvert mixes with discolored water in foreground, where bridge crew previously discharged water pumped from coffer dam.

IMG0049 – From top of culvert facing north. Note disarray of construction materials where pumped water was discharged through downstream straw wattles (recently replaced). K-rail check dam is located in background behind trees. Drainage ditch water flows north, from bottom to top of picture frame.

IMG0050 – From top of Chapel Road culvert facing north. Note coir logs further down drainage ditch, installed since last rain event. Discharge of pump water blew out previous straw wattles in drainage ditch.

IMG0051 – Taken between east side of SR 179 and drainage ditch, facing east toward pile of construction materials.

IMG0052 – Close up of construction material pile, site of previous pump discharge, facing east.

IMGP0053 – From west side of drainage ditch, facing northeast. Note discharges from check dam and fine sediments deposited in drainage ditch.

IMGP0054 – From east side of drainage ditch, facing northwest within pile of construction materials.

IMGP0055 – Facing northwest toward check dam. Note filter fabric lining of check dam in foreground.

IMGP0056 – From east side of drainage ditch, facing northwest. Coir logs in drainage ditch are ineffective at filtering the volume of pumped water.

IMGP0057 – From east side of SR 179, north of Chapel Road intersection, facing north. Note coir logs along border of housing development/ADOT right-of-way and within drainage ditch.

IMGP0058 – From east side of SR 179, north of Chapel Road intersection, facing northwest to SR 179 culverts. Culvert spillway is filled approximately 3-4' deep with fine sediments from upstream pump water discharge transported via the drainage ditch. Sediments overtopped the coir log, resulting in discharge to an unnamed tributary of Oak Creek (toward right side of picture frame).

IMGP0059 – From top of SR 179 culverts in IMGP0058, facing east toward housing development/offsite runoff of fine sediments.

IMGP0060 – From east side of SR 179, north of culvert spillway, facing south toward Chapel Road intersection.

IMGP0061 – Same as IMGP0059, facing east. Closer view of culvert spillway discharging offsite.

IMGP0062 – From drainage ditch, north of check dam and Chapel Road culvert, facing north. Coir logs placed on top of previous sediment discharge.

IMGP0063 – Close-up of upstream (north) side of coir log.

IMGP0064 – From northwest edge of check dam, within drainage ditch, facing north toward Chapel Road culvert. Note gap in K-rails and ineffectiveness of BMPs to filter fine sediments from check dam. Fine sediments are possibly overtopping check dam, evidenced by spill marks on K-rails.

IMGP0065 – Close-up of northwest edge of check dam, where filter fabric is slumping.

**Pine Drive site: South corner of Pine Drive/SR 179 intersection (east side of 179 – not within ADOT ROW)**

IMGP0066 – Facing south toward coir log check dam installed by ADOT out of the ROW. City of Sedona should maintain, evaluate for enforcement against private landowner.

IMGP0067 – Facing east from east side of SR 179. Note edge of check dam from IMGP0066.

IMGP0068 – Facing north from top of culvert located on east side of SR 179, south of Pine Drive, south of check dam from IMGP0066.

IMGP0069 – From east side of SR 179, facing north toward culverts below Pine Drive.

### **Morgan Yard Staging Area: Northeast corner of Morgan Road roundabout**

IMGP0070 – Facing west toward 179. Buckets in foreground contain an unknown oily waste.

IMGP0071 – Close-up view of contents in buckets from IMGP0070.

IMGP0072 – Facing northwest toward fenced material storage area. Note lack of secondary containment and labeling.

IMGP0073 – Facing northeast (away from SR 179). Note spill in gravel paving in foreground.

IMGP0074 – Facing north toward material storage area. Note spill in gravel/dirt road appears to come from water tank.

IMGP0075 – Close-up of materials in fenced storage area. Note lack of secondary containment for potentially toxic substances in buckets.

### **Morgan Wash: North of Morgan Road/SR 179 intersection**

IMGP0076 – North-facing overview from center of SR 179.

IMGP0077 – From west side of 179, facing west, down to slope just uphill of Morgan Wash.

IMGP0078 – From west side of 179, facing south toward Morgan Wash. Note filter fabric in foreground to address concerns of sediment deposit in Morgan Wash.

IMGP0079 – From west side of 179, facing northwest.

IMGP0080 – From west side of 179, facing west. Same as IMGP0077.

IMGP0081 – From east side of 179, facing south toward culvert for Morgan Wash.

IMGP0082 – Close-up of Morgan Wash culvert from IMGP0081.

IMGP0083 – From east side of 179, facing south at Morgan Wash culvert.

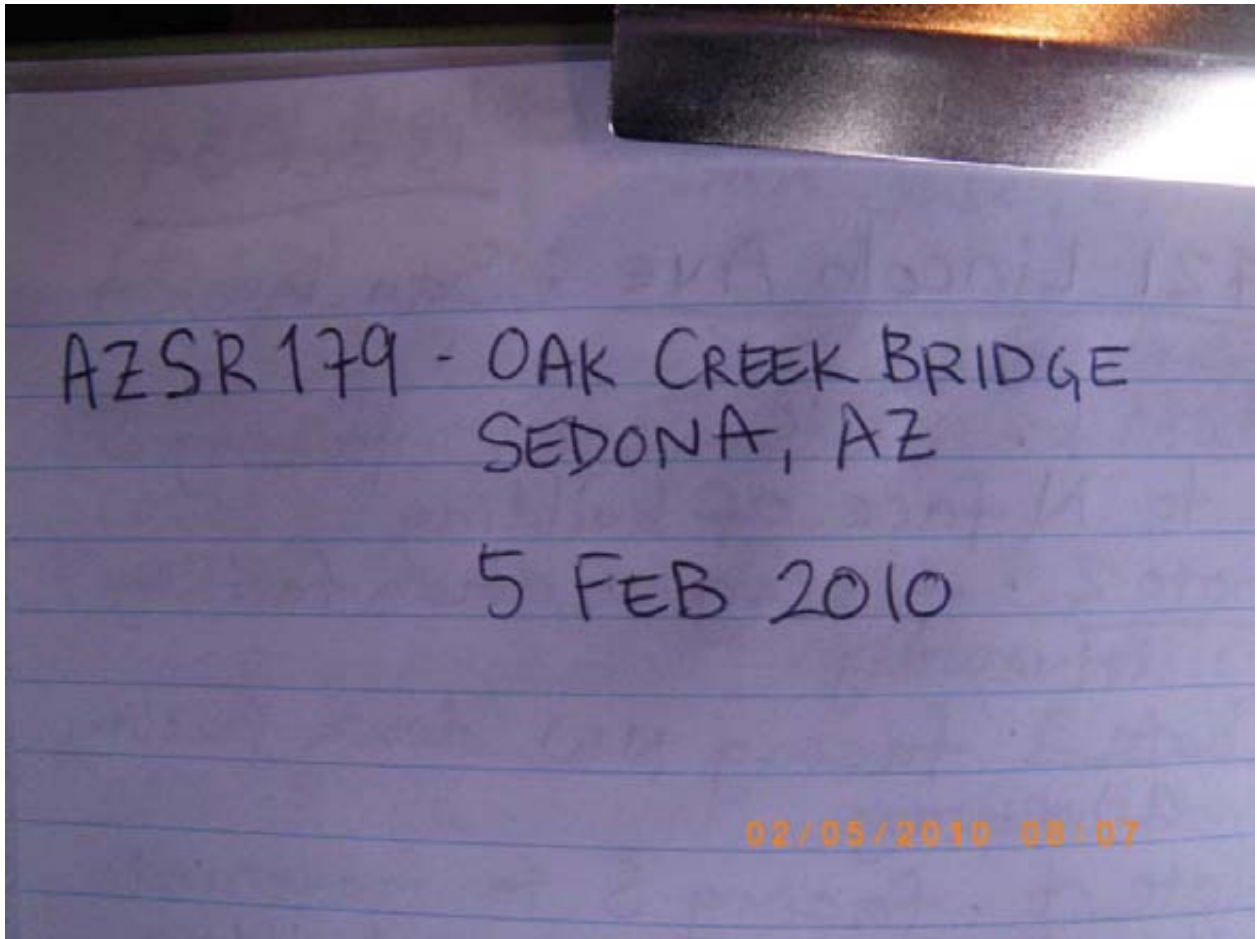
IMGP0084 – From east side of 179, facing southeast toward Morgan Wash.

### **Highland Staging Area: South of Oak Creek Bridge**

IMGP0085, 86 – Views into materials storage area.

### **Copper Cliffs Drive – West side of SR 179, between Highland and Morgan**

IMGP0087 – Facing southwest toward Oak Creek. Note potential fine sediment deposit (darker reddish color) along east banks of creek.



IMG0002



IMGP0003



IMG0004



IMGP0005



IMGP0006





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IMGP0008



IMG0009



IMG0010



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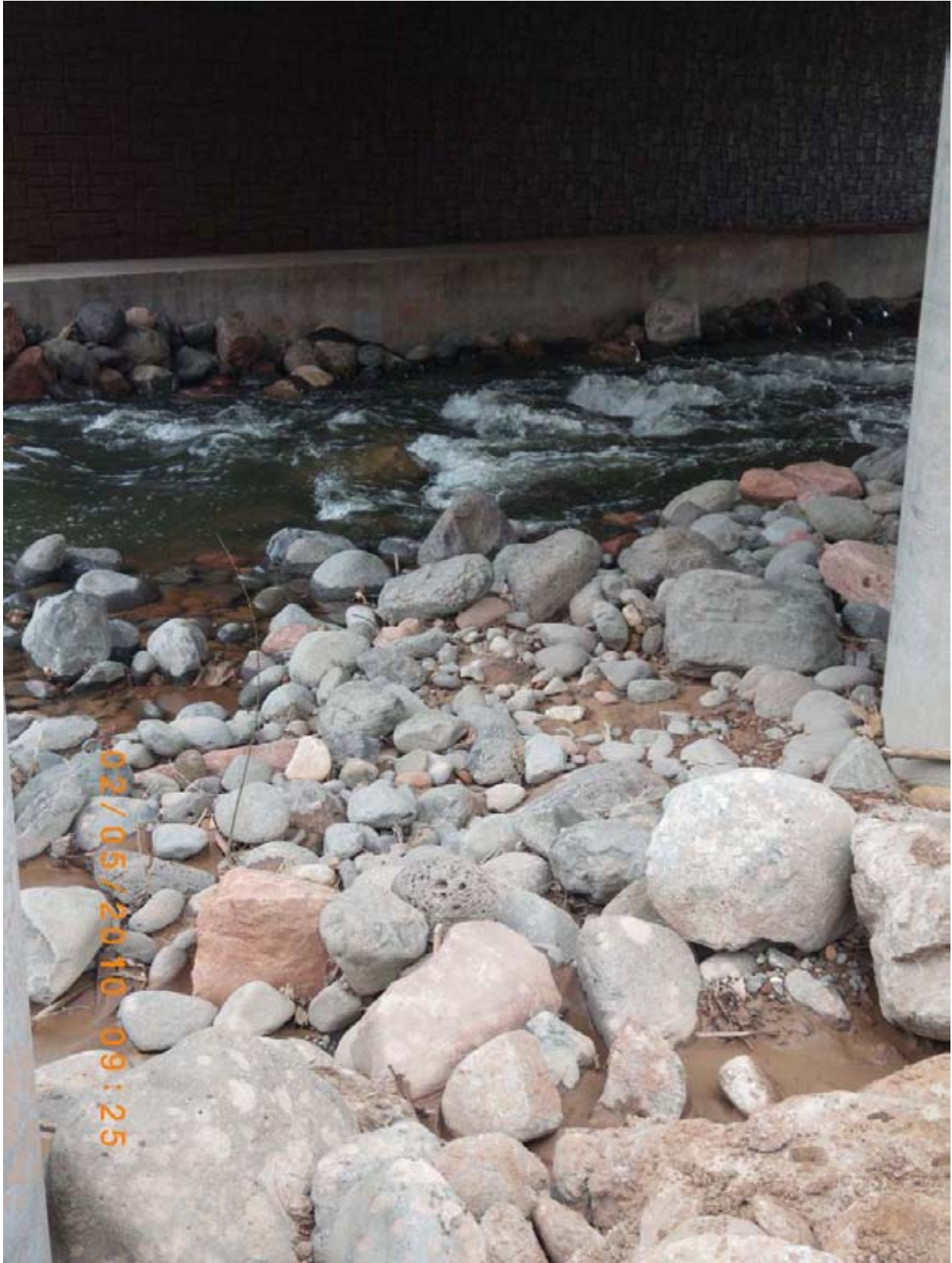
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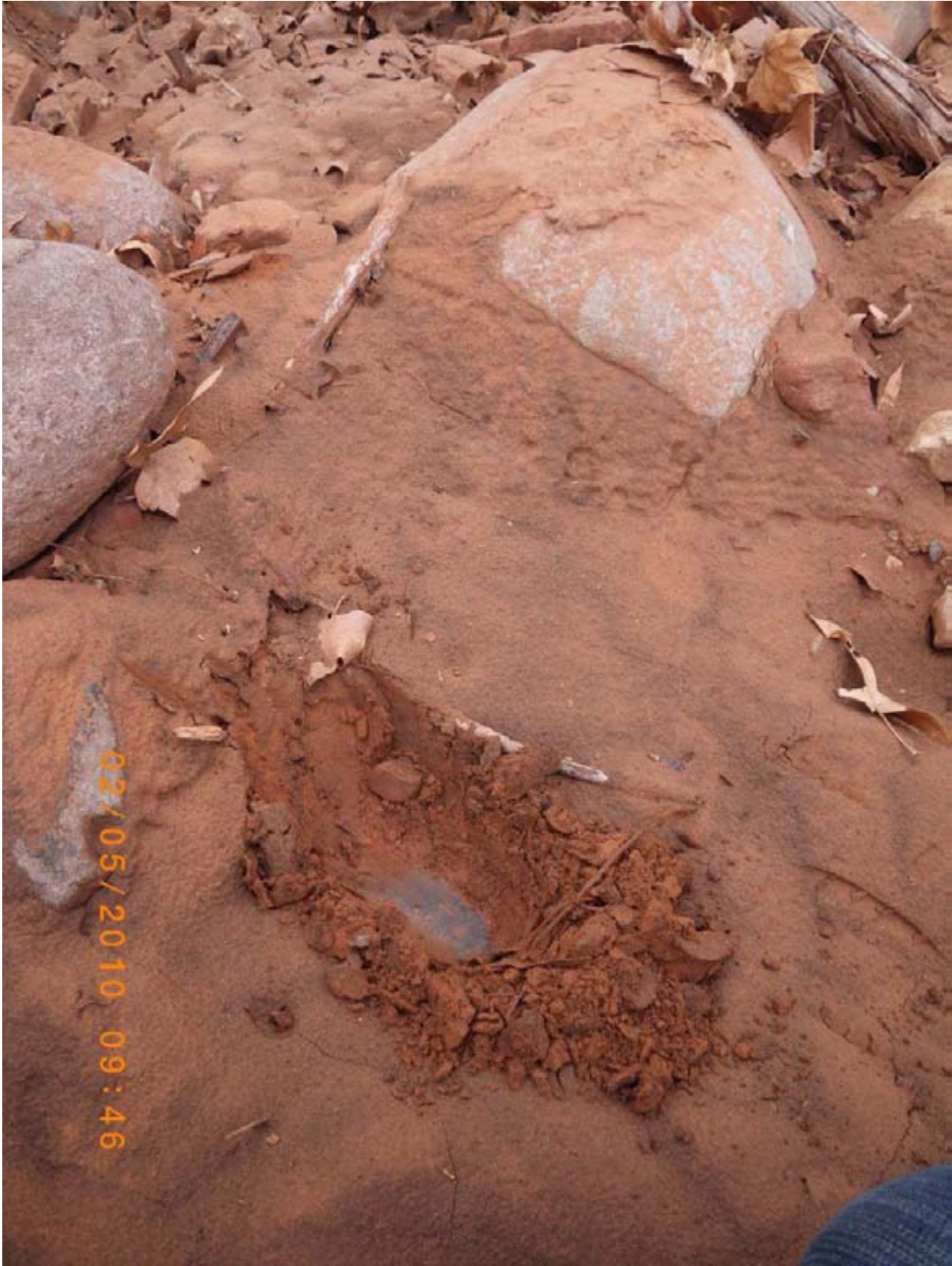


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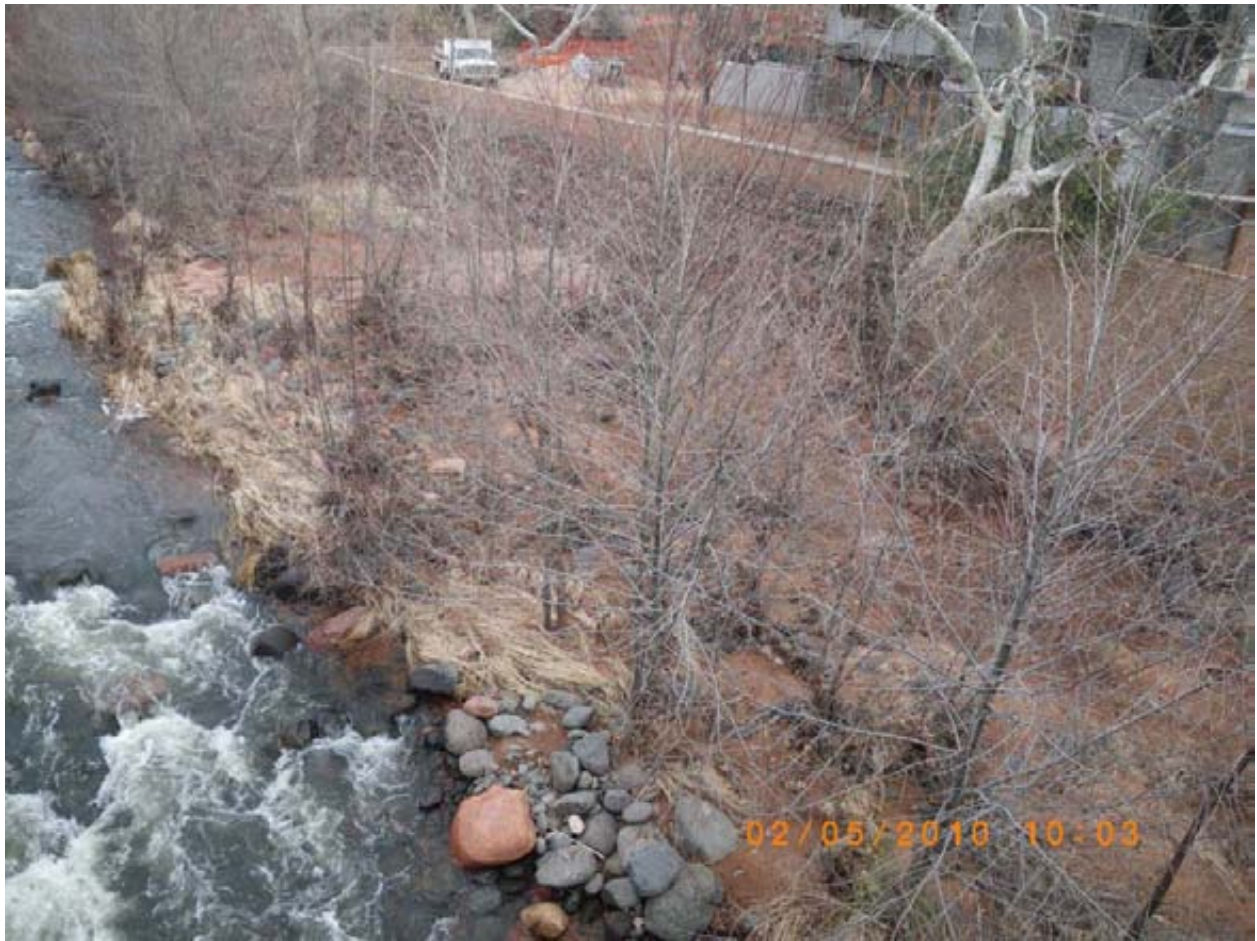


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IMG0044



IMG0045



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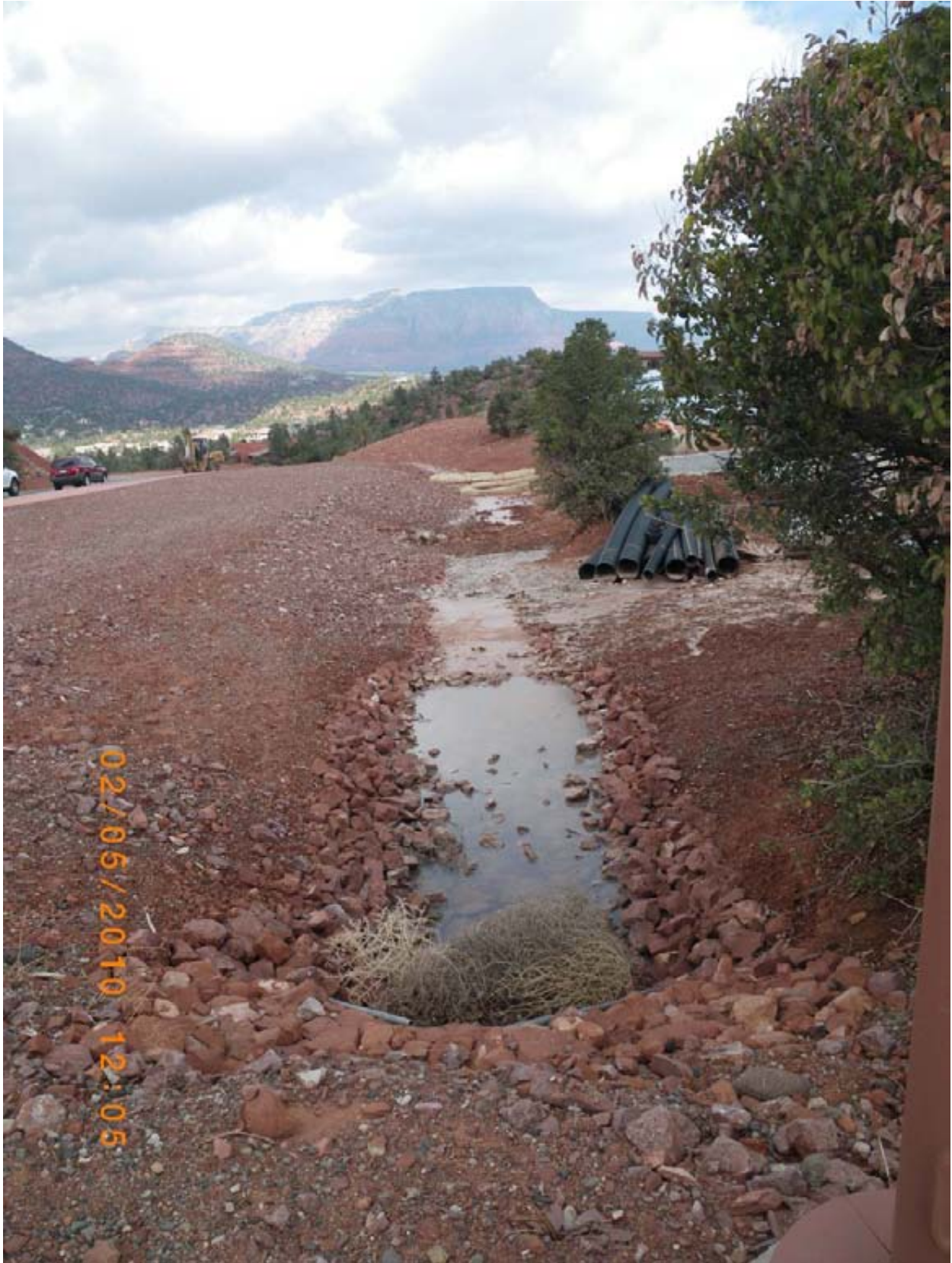
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IMGP0058



IMGP0059



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IMGP0062





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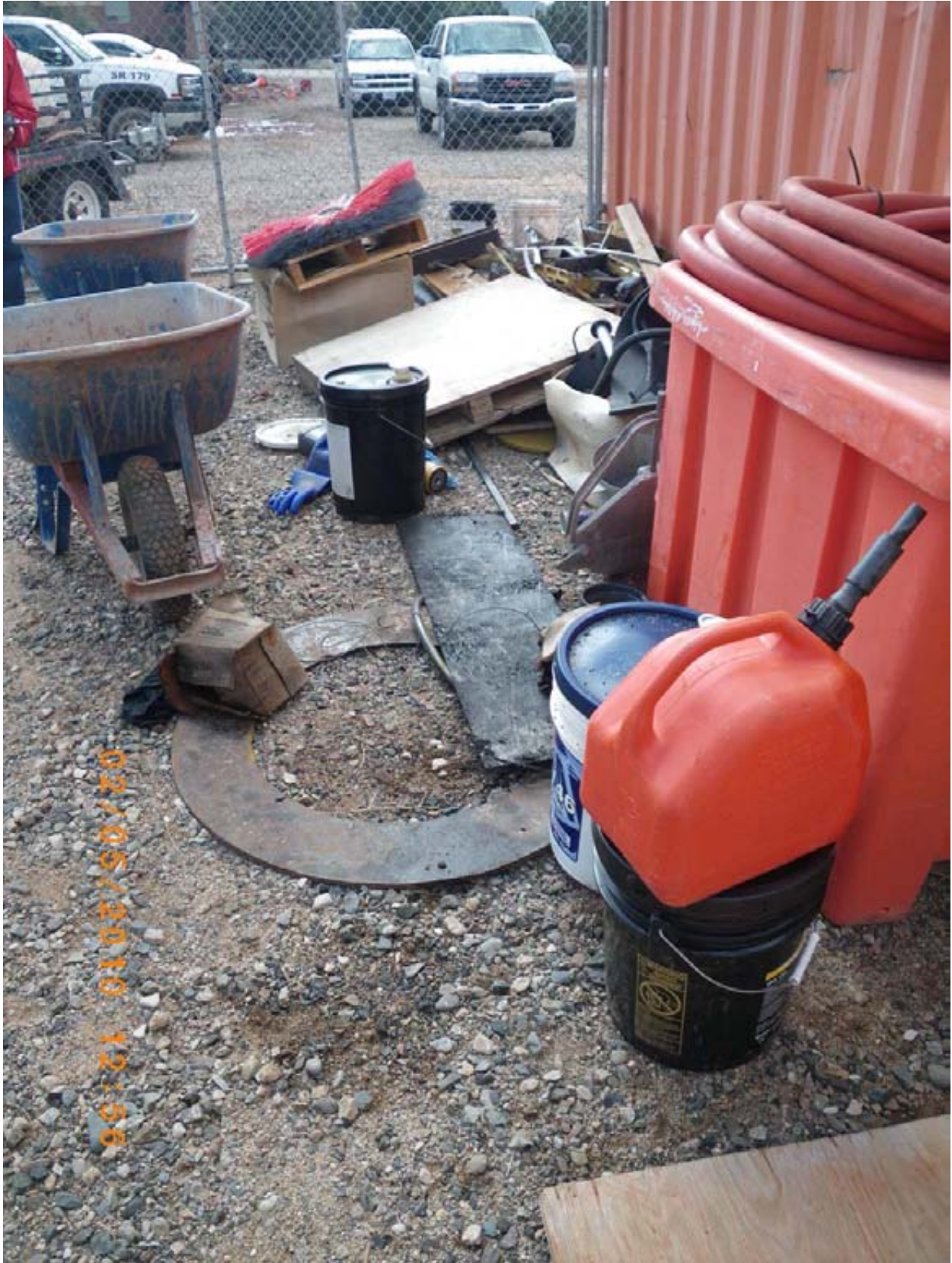
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IMGP0076



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IMGP0078





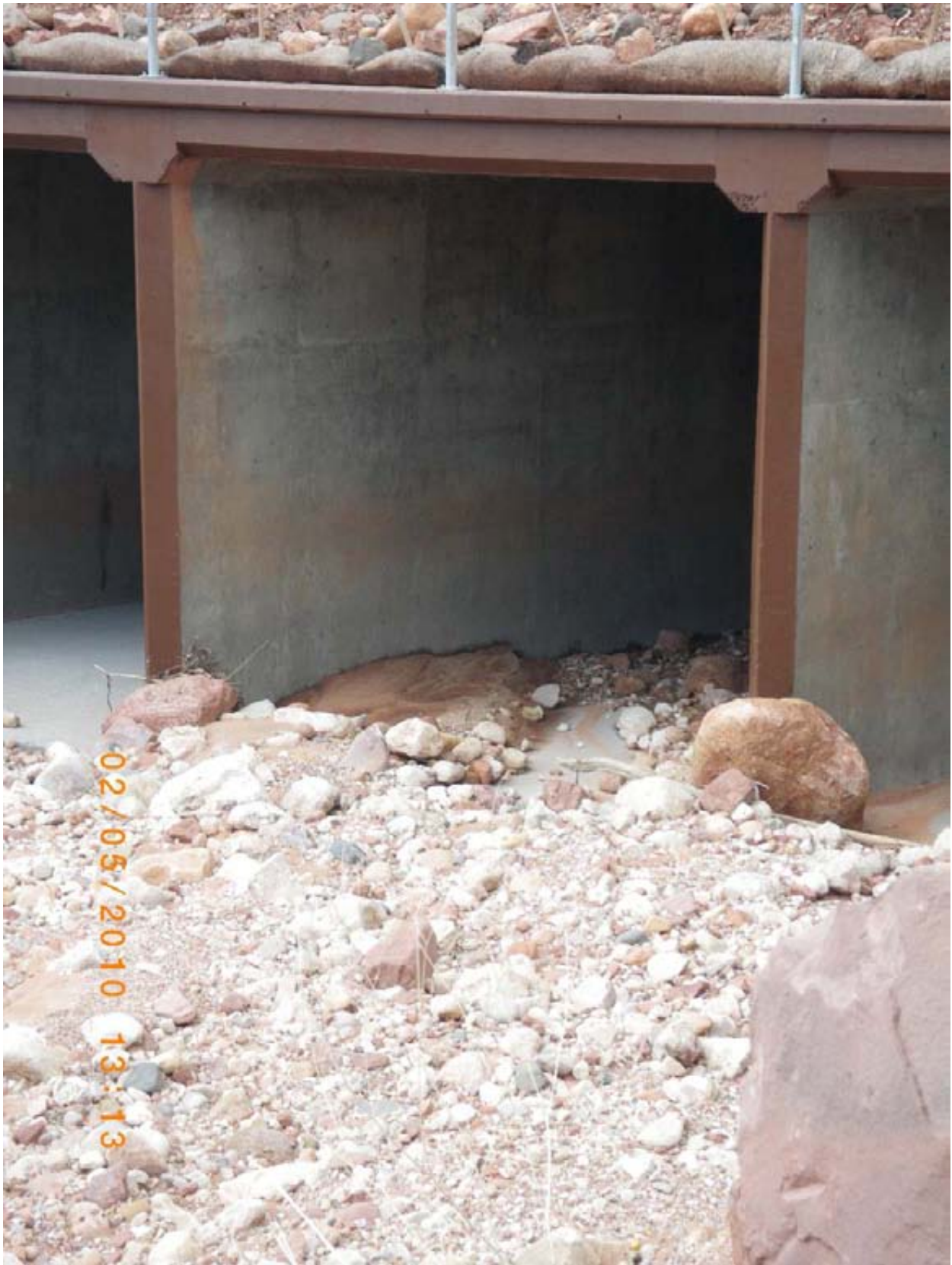
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IMG0087