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*State of New Mexico*  
**ENVIRONMENT DEPARTMENT**  
**DOE OVERSIGHT BUREAU**  
P.O. Box 1663, MS/J-993  
Los Alamos, New Mexico 87545



8 August 1997

Mr. Mat Johansen, AIP POC  
U.S. Department of Energy  
Los Alamos Area Office  
528 35th Street, MS A316  
Los Alamos, NM 87544

**RE:** Department of Energy Oversight Bureau (DOE OB) Inspection Observations and Recommendations concerning NPDES outfalls scheduled for deletion through the Waste Stream Characterization Program at Los Alamos National Laboratory (LANL).

Dear Mr. Johansen:

The following NPDES outfalls are to be scheduled for deletion from LANL's NPDES permit through the Waste Stream Characterization Program. DOE OB and LANL ESH-18 staff completed non-regulatory inspections of these outfalls on the indicated dates and concur that they are no longer in use, with the exception that some outfalls are still being used for storm water discharges. Additionally, DOE OB observations and recommendations for each outfall are listed on the following attachment. Where I thought appropriate, I have provided location maps for some outfalls as additional attachments. This inspection was requested by ESH-18 and a copy of this correspondence will be transmitted to the ESH-18 Group Leader.

If you have any questions please do not hesitate to call me at 672-0448.

Sincerely,

Steve Yanicak, LANL POC  
Department of Energy Oversight Bureau

SY:sy

Attachments



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cc: Ed Kelley, NMED, Director, WWMD  
John Parker, NMED, Chief, DOE OB  
Ralph Ford-Schmid, NMED, DOE OB  
Glen Saums, NMED, Program Manager, SWQB  
Barbara Hoditscheck, NMED, SWQB  
Stu Dinwiddie, NMED, Program Manager, HRMB  
Steve Rae, LANL, Group Leader, ESH-18, MS K497  
Mike Alexander, LANL, ESH-18, MS K497  
Tina Sandoval, LANL, ESH-18, MS K497  
Harvey Decker, LANL, ESH-18, MS K497  
Roy Michelotti, LANL, ER FU-3, CST-7, MS E525

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### DOE OB Inspection Observations and Recommendations

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**OUTFALL:** 06A099

**LOCATION:** Building TA-40-23 (see TA-40 attachment)

**DATE OF INSPECTION:** 5-22-97

**DELETION METHOD:** The photo-lab sink inside the building has been converted to a recirculating system. The sink and floor drains have been plugged. All remaining building drains have been tied into the sanitary line. The end of the outfall has been plugged with an aluminum cap, but the outfall owner (A. R. Martinez, 665-1962) wasn't sure if roof drains had been routed to the outfall.

**OUTFALL STATUS:** Possible continued use only during storm water events.

**RECOMMENDATION:** The DOE OB would recommend that this outfall be taken off the NPDES industrial permit after addressing the following concerns: The DOE OB questions why this photo-processing outfall was never listed as a PRS in the RFI Work Plan for OU-1111. Because this outfall might be a PRS and appears to be located up-gradient of SWMU 40-001(c), the DOE OB recommends that the pipe and the drainage area immediately below the outfall be investigated through the AP 4.5 procedure. If the preliminary results show a probability that soils or sediments are impacted, we recommend that this outfall not be used for storm water discharges because this would cause migration of contaminants down-gradient. In addition, we also recommend the implementation of best management practices such as run on controls in order to divert any storm water away from the outfall drainage and any PRSs directly below or down-gradient of the outfall pipe.

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**OUTFALL:** 03A146

**LOCATION:** Building TA-53-14

**DATE OF INSPECTION:** 5-22-97

**DELETION METHOD:** The cooling tower drain in the utility has been plugged, and now outlets to the sanitary line. The end of the 2" PVC pipe is still open, but no sources are connected to the pipe.

**OUTFALL STATUS:** Outfall no longer in use.

**RECOMMENDATION:** The DOE OB recommends that this outfall be taken off the NPDES industrial permit.

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OUTFALL:	04A133
LOCATION:	Building TA-53-19
DATE OF INSPECTION:	5-22-97
DELETION METHOD:	The building pipes have been removed and capped. The outlet to the outside of the building has been completely removed.
OUTFALL STATUS:	Outfall completely removed and no longer in use.
RECOMMENDATION:	The DOE OB recommends that this outfall be taken off the industrial NPDES permit.

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OUTFALL:	04A094
LOCATION:	Building TA-3-170
DATE OF INSPECTION:	6-27-97
DELETION METHOD:	The fire protection system drain was rerouted to the SWSC. The 4" clay outfall that drains to Sandia Canyon is scheduled to be plugged and capped, but the outfall drainage area, not the outfall pipe, will still route storm water from the TA-3 facility.
OUTFALL STATUS:	Outfall is no longer in use.
RECOMMENDATION:	The DOE OB recommends that this outfall be taken off the industrial NPDES permit.

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OUTFALL:	04A016
LOCATION:	Building TA-48-1
DATE OF INSPECTION:	6-27-97
DELETION METHOD:	The magnet cooling water is now recirculated and the laser cooling drain is capped. All internal drains to the outfall have been plugged. The 4" PVC outfall which drains to Mortandad Canyon will be capped and/or plugged.
OUTFALL STATUS:	Outfall is no longer in use.

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RECOMMENDATION: The DOE OB recommends that this outfall be taken off the industrial NPDES permit.

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OUTFALL: 04A152

LOCATION: Building TA-48-28

DATE OF INSPECTION: 6-27-97

DELETION METHOD: The laser inside the building which needed cooling has been removed. The old cooler has been replaced with a recirculating unit. All internal drains from the laser cooling system and floor have been plugged. The 6" PVC outfall pipe that drains to Mortandad Canyon will be capped and/or plugged.

OUTFALL STATUS: Outfall is no longer in use.

RECOMMENDATION: The DOE OB recommends that this outfall be taken off the industrial NPDES permit.

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OUTFALL: 03A035

LOCATION: Building TA-21-210 (see TA-21 attachment)

DATE OF INSPECTION: 6-27-97

DELETION METHOD: All internal floor drains in Rooms 100 and 140 have been plugged and the sink drains have been tied into the sanitary line. The 8" outfall pipe to Los Alamos Canyon will only receive storm water from Building 21-210 roof drains.

OUTFALL STATUS: Continued use only during storm water events.

RECOMMENDATION: The DOE OB recommends that this outfall be taken off the NPDES industrial permit. Because this outfall is located up-gradient of SWMU 21-024(d), the DOE OB additionally recommends that the drainage area immediately below the outfall be investigated through the AP 4.5 procedure to see if a probability exists that PRS 21-024(d) soils or sediments might be impacted by run on from storm water discharges from this outfall. If the preliminary results show a probability that soils or sediments are impacted, we recommend that this outfall not be used for storm water discharges because this would cause migration of contaminants down-gradient. In addition, we also recommend the implementation of best management practices such as run on controls in order to divert any storm water away from the outfall drainage and any SWMUs

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directly below or down-gradient of the outfall pipe.

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OUTFALL:	03A036	
LOCATION:	Building TA-21-152	(see TA-21 attachment)
DATE OF INSPECTION:	6-27-97	
DELETION METHOD:	The cooling line has been replaced with a recirculating unit, and blowdown now goes to the RWL at TA-50. The 3 floor drains have been plugged. This outfall will only receive storm water from the parking lot receiving area. The outfall pipe is not plugged, and drains eventually to DP Canyon.	
OUTFALL STATUS:	Continued use only during storm water events.	
RECOMMENDATION:	The DOE OB recommends that this outfall be taken off the NPDES industrial permit. Because this outfall is located up gradient of SWMU 21-024(h), the DOE OB additionally recommends that the drainage area immediately below the outfall be investigated through the AP 4.5 procedure to see if a probability exists that PRS 21-024(h) soils or sediments might be impacted by run on from storm water discharges from this outfall. See comment for 03A036, Building TA-21-152 above.	

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OUTFALL:	03A034	
LOCATION:	Building TA-21-166 & 167	(see TA-21 attachment)
DATE OF INSPECTION:	6-27-97	
DELETION METHOD:	The upper level cooling water drains have been rerouted to a sump in the basement which goes to SWSC. The outfall will receive only storm water from the roof drains and parking lot. The 6" clay outfall pipe drains eventually to Los Alamos Canyon.	
OUTFALL STATUS:	Continued use only during storm water events.	
RECOMMENDATION:	The DOE OB recommends that this outfall be taken off the NPDES industrial permit. Because this outfall is located possibly up-gradient of SWMU 21-024(m), the DOE OB additionally recommends that the drainage area immediately below the outfall be investigated through the AP 4.5 procedure. See comment for 03A036, Building TA-21-152 above.	

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OUTFALL: 06A075

LOCATION: Building TA-8-21

DATE OF INSPECTION: 6-27-97

DELETION METHOD: The old photo-lab has been converted to office space, the drains for the sinks and floors have been plugged. All remaining building drains have been tied into the sanitary line. This outfall will continue to receive storm water from roof drains.

OUTFALL STATUS: Continued use only during storm water events.

RECOMMENDATION: The DOE OB would recommend that this outfall be taken off the NPDES industrial permit after addressing the following concerns: Because this outfall is listed as SWMU 8-009(e), the DOE OB recommends that the pipe and the drainage area immediately below the outfall be investigated through the AP 4.5 procedure. See comment for 03A036, Building TA-21-152.

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OUTFALL: 06A074

LOCATION: Building TA-8-22

DATE OF INSPECTION: 6-27-97

DELETION METHOD: The photo-lab sink inside the building has been converted to a self-contained recirculating system. All developing chemicals are now stored until disposal. The sink and floor drains have been plugged. All remaining building drains have been tied into the sanitary line.

OUTFALL STATUS: Outfall is no longer in use.

RECOMMENDATION: The DOE OB would recommend that this outfall be taken off the NPDES industrial permit after addressing the following concerns: Because this outfall is listed as SWMU 8-009(d), the DOE OB recommends that the pipe and the drainage area immediately below the outfall be investigated through the AP 4.5 procedure. See comment for 03A036, Building TA-21-152.

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OUTFALL: 04A083

LOCATION: Building TA-16-202

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DATE OF INSPECTION: 6-27-97

DELETION METHOD: The water fountain and sink has been removed in Room 107, and all floor drains have been plugged. This outfall will continue to receive storm water from roof drains.

OUTFALL STATUS: Continued use only during storm water events.

RECOMMENDATION: The DOE OB recommends that this outfall be taken off the industrial NPDES permit. This outfall will continue to receive storm water from exterior roof and storm drains. These exterior sources are not known to be PRSs or come in contact with any PRSs.

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OUTFALL: 04A070

LOCATION: Building TA-16-220

DATE OF INSPECTION: 6-27-97

DELETION METHOD: The eight (8) floor drains inside this explosives rest house have been plugged. The outfall is still in place but does not receive any storm water or discharges of any kind.

OUTFALL STATUS: Outfall is no longer in use.

RECOMMENDATION: The DOE OB recommends that this outfall be taken off the industrial NPDES permit.

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OUTFALL: 04A156

LOCATION: Building TA-39-89

DATE OF INSPECTION: 6-30-97

DELETION METHOD: The laser cooling system in Room 103 has been converted to a recirculating system. All piping has been removed.

OUTFALL STATUS: Outfall completely removed and no longer in use.

RECOMMENDATION: The DOE OB recommends that this outfall be taken off the industrial NPDES permit.

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OUTFALL:	04A141
LOCATION:	Building TA-39-69
DATE OF INSPECTION:	6-30-97
DELETION METHOD:	The gun-room cooling system has been converted to a recirculating system. All piping has been removed.
OUTFALL STATUS:	Outfall completely removed and no longer in use.
RECOMMENDATION:	The DOE OB recommends that this outfall be taken off the industrial NPDES permit.

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OUTFALL:	04A139
LOCATION:	Building TA-15-184 (PHERMEX)
DATE OF INSPECTION:	6-30-97
DELETION METHOD:	The non-contact cooling water has been rerouted to the septic system serving TA-15-184. There are two drains in a below grade entry way that can receive storm water. The entry way is protected from surface runoff and any explosive debris (including depleted uranium) from the shots that routinely occur at PHERMEX. An additional site visit and storm water flow calculation (available upon request) was performed by S. Diamond and J. Dermer of LANL FMU-67 to verify that the above referenced septic system and outlet pipe could manage an increased effluent input flow (up to a 100 year event) without significantly discharging to the environment.
OUTFALL STATUS:	Outfall is no longer in use.
RECOMMENDATION:	The DOE OB recommends that this outfall be taken off the industrial NPDES permit.

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OUTFALL:	04A127
LOCATION:	Building TA-35-213
DATE OF INSPECTION:	7-16-97
DELETION METHOD:	The cooling tower blowdown drain has been plugged in Room B-29 and

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pipng is now rerouted to the sanitary line. The floor drain was plugged in Room C-19. All other drains with exception of the lavatories are routed to the RWL at TA-50. Currently, the 6" outfall pipe which discharges to Mortandad Canyon only receives roof drain storm water.

OUTFALL STATUS: Continued use only during storm water events.

RECOMMENDATION: The DOE OB recommends that this outfall be taken off the industrial NPDES permit. This outfall will continue to receive storm water from exterior roof and storm drains. These exterior sources are not known to be PRSs or come in contact with any PRSs.

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OUTFALL: 04A115

LOCATION: Building TA-8-70

DATE OF INSPECTION: 7-17-97

DELETION METHOD: The X-ray cooling water system inside Room 114 has been converted to a recirculating system. The floor drains in Rooms 116 and 117 have been plugged and the sinks are no longer in use. The floor drain in Room 115 has been plugged. The 6" clay outfall pipe will receive roof drain input flow from storm events only.

OUTFALL STATUS: Continued use only during storm water events.

RECOMMENDATION: The DOE OB recommends that this outfall be taken off the industrial NPDES permit.

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OUTFALL: 04A091

LOCATION: Building TA-16-450 (see TA-16 attachment)

DATE OF INSPECTION: 7-17-97

DELETION METHOD: The sump for building TA-16-450 is now plugged, with no exit outlet to the outfall, and scheduled for removal by the facility owner. The removal date is late summer 1997. The flow from the process troughs is still allowed to go to the sump, but it is now captured in large containers within the sump and periodically and properly removed as needed. The FU-3 ER Project will sample under the sump while the excavation pit is open in addition to sampling the outfall drainage area.

OUTFALL STATUS: Outfall is no longer in use.

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**RECOMMENDATION:** The DOE OB would recommend that this outfall be taken off the NPDES industrial permit after addressing the following concerns: Because this outfall is listed as SWMU 16-029(g), the DOE OB recommends that the pipe and the drainage area immediately below the outfall be investigated through the AP 4.5 procedure. Even though the probable contaminant source, the sump, is scheduled for removal later this summer, it is not known when the outfall drainage area will be scheduled for an ER investigation. See comment for 03A036, Building TA-21-152 above.

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**OUTFALL:** 04A157

**LOCATION:** Building TA-16-460

**DATE OF INSPECTION:** 7-17-97

**DELETION METHOD:** The vacuum pump cooling water inside the building has been converted to a recirculating system. Floor washing drains are bermed or plugged and all remaining building drains have been tied into the sanitary line. The old 6" clay outfall pipe has been removed but a few broken pieces of it still remain in the drainage.

**OUTFALL STATUS:** Outfall completely removed and no longer in use.  
NOTE: This outfall discharged into the same drainage as 05A072 below.

**RECOMMENDATION:** The DOE OB recommends that this outfall be taken off the industrial NPDES permit.  
NOTE: All DOE OB concerns regarding this outfall drainage are listed below in the 05A072 recommendations.

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**OUTFALL:** 05A072

**LOCATION:** Building TA-16-460

**DATE OF INSPECTION:** 7-17-97

**DELETION METHOD:** The dish washer drain for chemical laboratory glassware inside the building has been rerouted to the sanitary line. The floor drains have been plugged or tied into the sanitary line. The old 6" clay outfall pipe in the drainage has been removed but a few broken pieces of it still remain on the drainage banks.

**OUTFALL STATUS:** Outfall completely removed and no longer in use.  
NOTE: This outfall discharged into the same drainage as 04A157 above. In addition, there is a new white 6" PVC pipe with no EPA ID designation that discharges roof drain storm water to this drainage from Building 16-460.

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**RECOMMENDATION:** The DOE OB would recommend that this outfall be taken off the NPDES industrial permit after addressing the following concerns: Because this former clay pipe outfall is listed as SWMU 16-026(v) and is associated with sump PRS 16-003(c), the DOE OB recommends that the new white 6" PVC pipe referenced above and the drainage area immediately below the outfall be investigated through the AP 4.5 procedure. See comment for 03A036, Building TA-21-152.

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**OUTFALL:** 03A148

**LOCATION:** Building TA-3-1498, 1837

**DATE OF INSPECTION:** 7-17-97

**DELETION METHOD:** The computer system cooling system overflow has been rerouted to the sanitary line. All building drains to this outfall have been tied into the sanitary line.

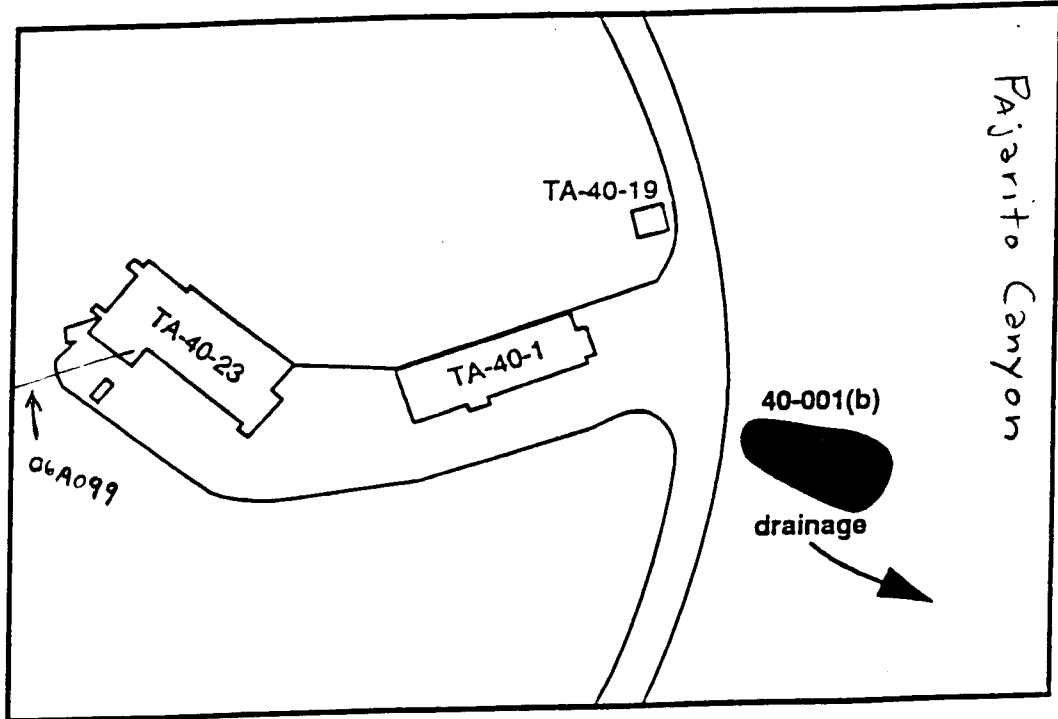
**OUTFALL STATUS:** Continued use only during storm water events.

**RECOMMENDATION:** The DOE OB recommends that this outfall be taken off the industrial NPDES permit. This outfall will continue to receive storm water from exterior roof and storm drains. These exterior sources are not known to be SWMUs, and the only SWMUs known in the vicinity are enclosed sanitary lift stations listed as 3-016(d), 3-016(e), and 3-016(f) that are recommended for no further action. After reviewing the July 1995, RFI Work plan for OU-1114, it does not appear that these PRSs would be impacted by storm water released from outfall 03A148.

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TA-40 — 06A099

SWMU 40-001(b). Figure 5-25 shows the location of 40-001(b). Buildings TA-40-1, -19, and -23, which were built in the early 1950s, are served by 40-001(b). TA-40-1 has contained offices, a darkroom, and an explosives laboratory (Creamer 1993, 19-0035). In the early 1980s, the explosives laboratory was removed and the building was converted into office space. The building is still in use. TA-40-19 was a guard shack (Creamer 1993, 19-0035); it is not in use. TA-40-23 has contained a cable shop, a warehouse, and an electronics laboratory and now contains offices, a laser laboratory, a carpenter shop, and a staff shop (Creamer 1993, 19-0035). Acetone, alcohol, and dilute acids may have been used in these facilities. Possible contaminants of this septic system include explosives, photoprocessing chemicals, solvents, and acids.



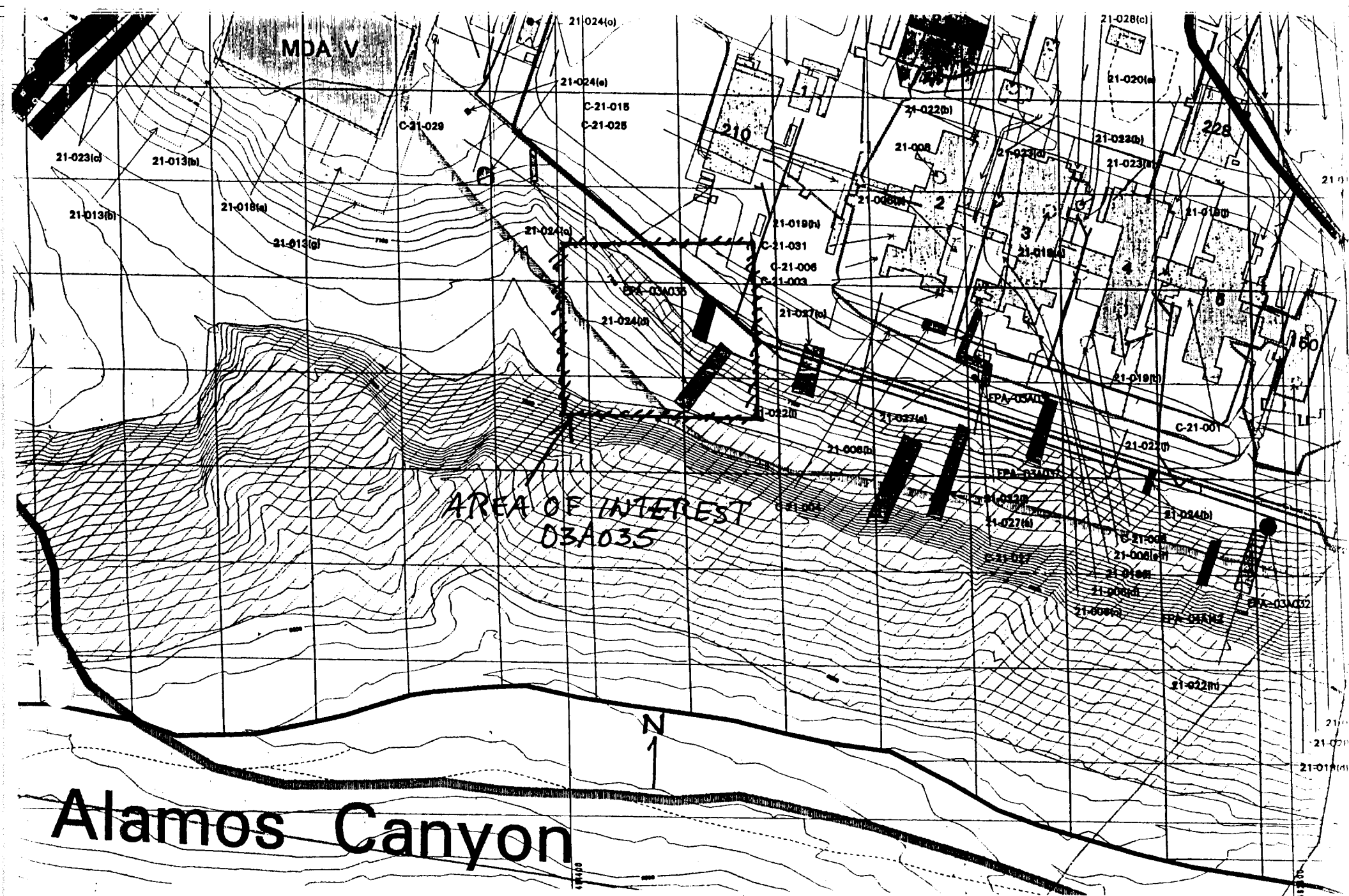
★ Figure 5-25. Location of 40-001(b).  
Building schematic shows  
2 roof drains discharging to  
06A099

300 ft.



PRS  
Structure  
Paved road or parking area

TA-40 - 06A099



Alamos Canyon

TA-21

03A035



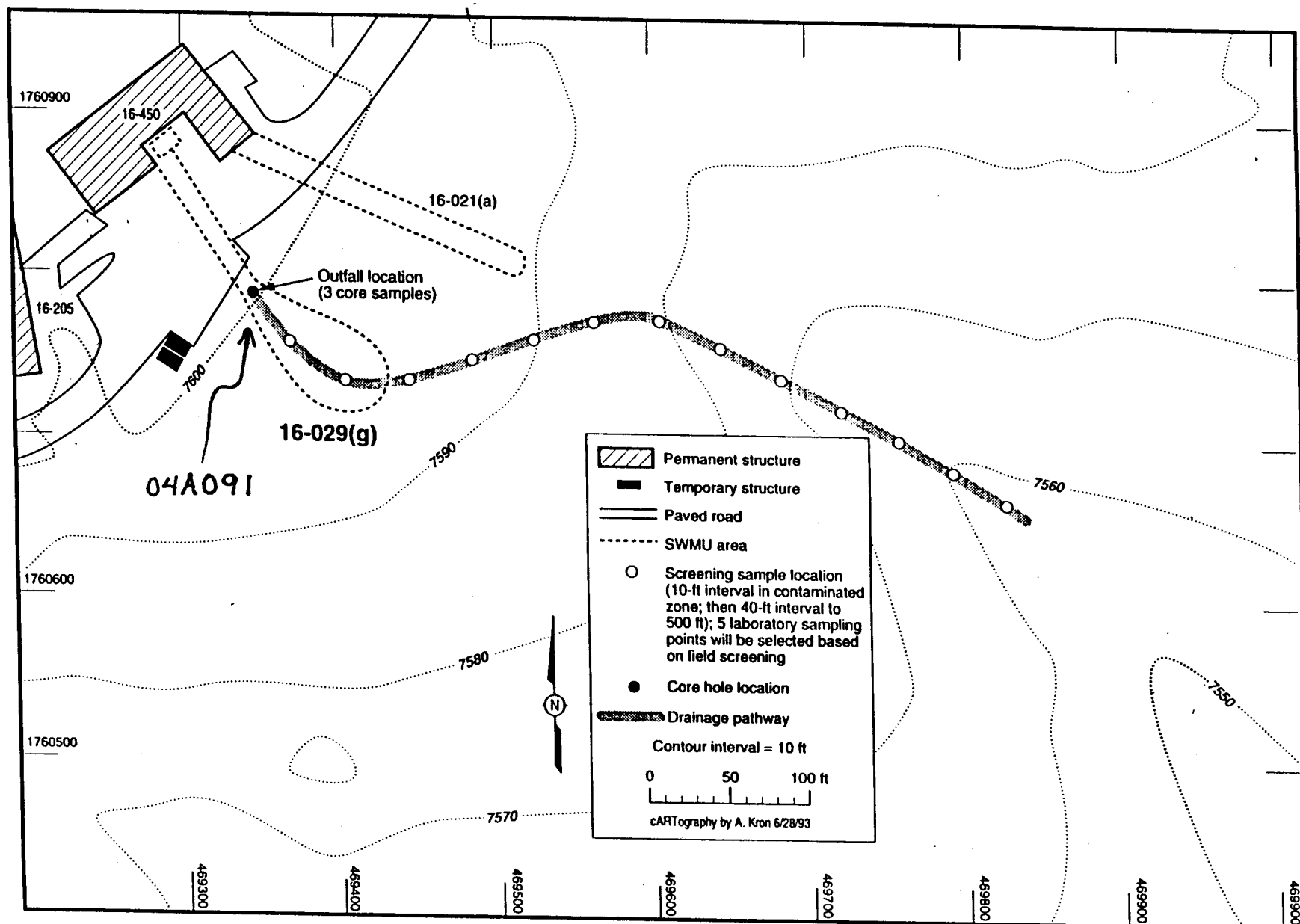


Fig. 5-24. Schematic field screening sampling locations for SWMU 16-029(g).

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RFI Work Plan for OU 1082