Southern Ute Indian Tribe Water Quality Program
Gold King Mine Animas River Release Monitoring

The Southern Ute Water Quality Program is responding to the Gold King Mine release to the Animas River that occurred on August 5, 2015. The plume of sediment and metals from the mine crossed the Reservation boundary in the early morning hours of August 7, 2015. Before the plume reached the border, the Water Quality Program collected several samples to establish baseline conditions immediately prior to the plume.

This document captures the immediate response of the WQP to the event. Please direct all questions to Curtis Hartenstine, Southern Ute Indian Tribe Water Quality Program Manager charten@southernute-nsn.gov, 970-563-4705

Pre Release Monitoring: 8/6/15:				
Site	WQ	Sonde	Macro	Photo
19-3	Yes	Yes	Yes	Yes
AR 16-0	No	Yes	No	Yes
Basin Creek	No	No	Yes	Yes
NAR 6	Yes	Yes	No	Yes

Post Release Monitoring 8/7/15 and beyond					
Site	WQ	Sonde	Macro	Photo	Substrate Sediment
19-3	Yes	Yes	Yes	Yes	Yes
AR 16-0	Yes	Yes	Yes	Yes	Yes
Basin Creek	No	No	Yes	Yes	Yes
AR7-2	Yes	No	Yes	Yes	Yes
NAR 6	Yes	Yes	Yes	Yes	Yes
Frequency of Collection	Daily- See analyte list below (derived from EPA suggested parameters)	30 minute increment DO, pH, conductivity , temp	8/10- ongoing weekly	With each event	8/13- ongoing bi weekly

Water Quality Analyte List					
PARAMETER	Fraction	UNITS	METHOD	MDL	PQL
Aluminum	Trec, D	mg/l	M200.7 ICP	0.03	0.2
Calcium	Trec, D	mg/l	M200.7 ICP	0.1	0.5
Iron	Trec, D	mg/l	M200.7 ICP	0.02	0.05
Magnesium	Trec, D	mg/l	M200.7 ICP	0.2	1
Potassium	Trec, D	mg/l	M200.7 ICP	0.2	1
Sodium	Trec, D	mg/l	M200.7 ICP	0.2	1
Silver	Trec, D	mg/l	M200.8 ICPMS	0.00005	0.0003
Arsenic	Trec, D	mg/l	M200.8 ICP-MS	0.0002	0.001
Cadmium	Trec, D	mg/l	M200.8 ICP-MS	0.0001	0.0005
Copper	Trec, D	mg/l	M200.8 ICP-MS	0.0005	0.003
Selenium	Trec and D	mg/l	M200.8 ICP-MS	0.0001	0.0003
Zinc	Trec, D	mg/l	M200.8 ICP-MS	0.002	0.005
Barium	Trec, D	mg/l	M200.8 ICP-MS	0.0005	0.003
Beryllium	Trec, D	mg/l	M200.8 ICP-MS	0.00005	0.0003
Cobalt	Trec, D	mg/l	M200.8 ICP-MS	0.00005	0.0003
Chromium	Trec, D	mg/l	M200.8 ICP-MS	0.0005	0.003
Manganese	Trec, D	mg/l	M200.8 ICP-MS	0.0005	0.003
Molybdenum	Trec, D	mg/l	M200.8 ICP-MS	0.0005	0.003
Nickel	Trec, D	mg/l	M200.8 ICP-MS	0.0006	0.003
Lead	Trec, D	mg/l	M200.8 ICP-MS	0.0001	0.0005
Antimony	Trec, D	mg/l	M200.8 ICP-MS	0.0004	0.003
Selenium	Trec, D	mg/l	M200.8 ICP-MS	0.0001	0.0003
Thallium	Trec, D	mg/l	M200.8 ICP-MS	0.0001	0.0005
Vanadium	Trec, D	mg/l	M200.8 ICP-MS	0.0002	0.001
Mercury	Trec, D	mg/l	7470/7471/747		
Bicarbonate as CaC03		mg/l	SM2320B-Titration	2	20
Carbonate as CaC03		mg/l	SM2320B-Titration	2	20
Hardness as CaC03		mg/l	SM2320B-Calculation	1	7
Residue, Non-Filterable (TSS) @ 105°C		mg/l	SM2540D	5	20
Residue, Filterable (TDS) @ 180°C		mg/l	SM2540C	10	50

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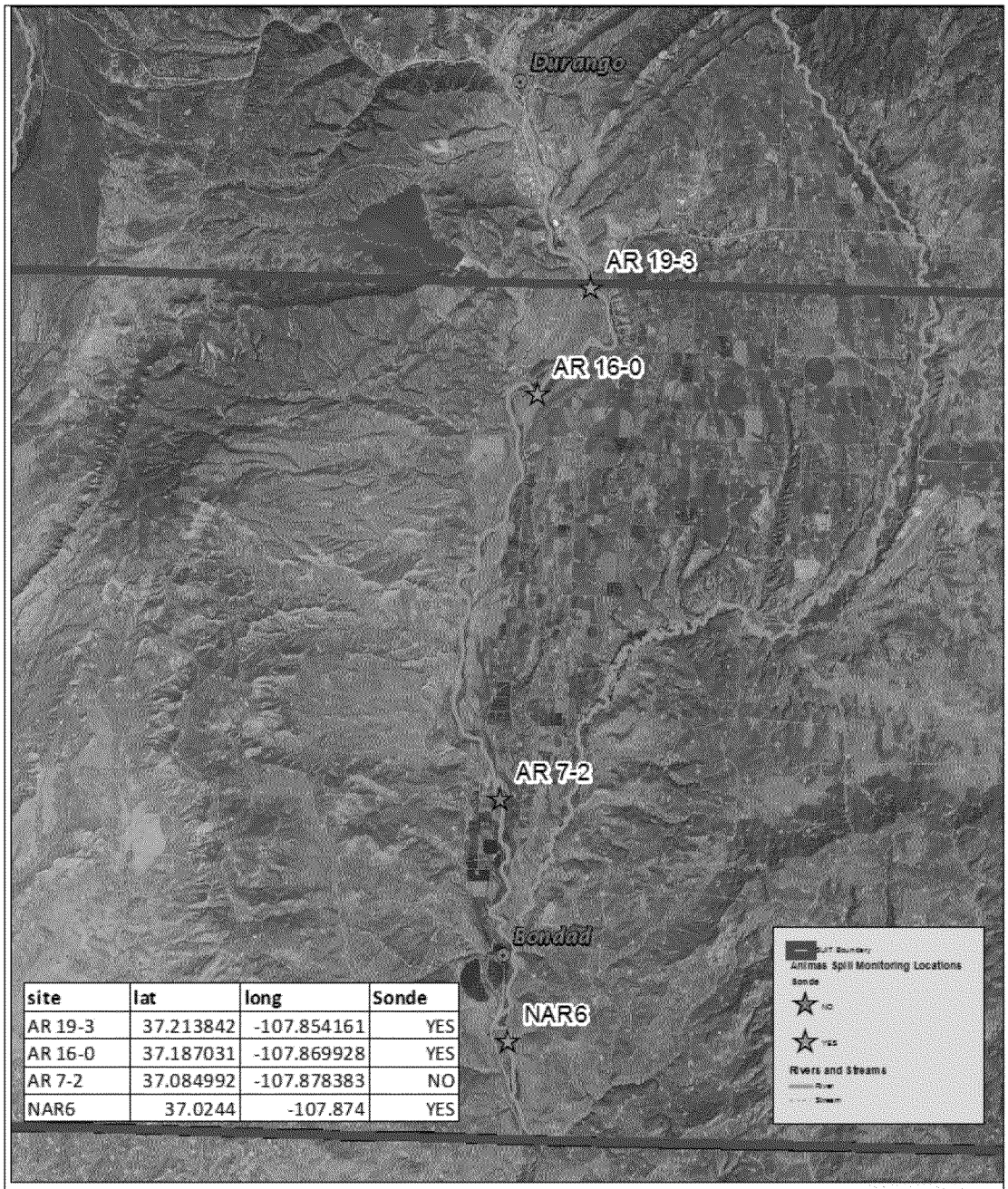

site	lat	long	Sonde
AR 19-3	37.213842	-107.854161	YES
AR 16-0	37.187031	-107.869928	YES
AR 7-2	37.084992	-107.878383	NO
NAR6	37.0244	-107.874	YES

Animas Spill Monitoring Locations

0 1 2 4 6 8 Miles

N

Created 8/7/15