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**NOTE:
SUPPLEMENTAL
STANDARDS**

**DEPARTMENT OF ENERGY
ALBUQUERQUE OPERATIONS OFFICE
CONTRACT NO. DE-AC04-83AL18796**

**Vicinity Property
Completion Report**

**Remedial Actions
Contractor
for the
Uranium Mill Tailings
Remedial Actions
Project**



MK-FERGUSON COMPANY
A MORRISON KNUDSEN COMPANY

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Vicinity Property No. DU-059S

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VICINITY PROPERTY COMPLETION REPORT

AT

DU-059S

NW CORNER OF ROOSA AVENUE AND
HIGHWAY 160

DURANGO, COLORADO 81650

SEPTEMBER 24, 1990

FOR

URANIUM MILL TAILINGS REMEDIAL ACTION PROJECT OFFICE
ALBUQUERQUE OPERATIONS OFFICE
U.S. DEPARTMENT OF ENERGY
ALBUQUERQUE, NM

BY

MK-FERGUSON COMPANY
AND
CHEM-NUCLEAR SYSTEMS, INC.

MK-Ferguson Company has been granted authorization to perform remedial action under the Uranium Mill Tailings Radiation Control Act of 1978, Public Law 95-604. Remedial action was done in accordance to the EPA Standards for Cleanup of Lands and Buildings Contaminated with Residual Radioactive Material from Inactive Uranium Processing Sites, 40 CFR 192.12, 192.20-23.

OFFICIAL DOCKET COPY

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Vicinity Property No. DU-059S

1.0 SUMMARY

| | |
|-----------------------------|---|
| PROPERTY NUMBER: | DU-059 |
| PROPERTY ADDRESS: | NW Corner of Roosa Avenue and Highway 160 Durango, Colorado |
| PROPERTY OWNER: | United Bank of Denver United Bank Center 1700 Broadway Denver, Colorado 80274-0043 |
| PROPERTY CATEGORY: | Vacant Lot (House Demolished) |
| REMEDIAL ACTION CONTRACTOR: | MK-FERGUSON COMPANY |
| CONSTRUCTION SUBCONTRACTOR: | DURANGO UNTIED CONSTRUCTION/ BONDS CONSTRUCTION |
| RADIOLOGICAL CONTRACTOR: | CHEM-NUCLEAR SYSTEMS, INC. |
| REA APPROVED: | April 28, 1988 |
| REMEDIAL ACTION STARTED: | Phase I - August 16, 1988 / |
| REMEDIAL ACTION COMPLETED: | September 13, 1988 |
| | Phase II - August 2, 1989 / |
| | September 22, 1989 |
| VOLUME OF MATERIAL REMOVED: | OUTDOOR: 3944 Cubic yards INDOOR: -N/A- |

1.0 SUMMARY

Remedial action was completed on Vicinity Property DU-059. A total of 3944 cubic yards of soil was removed from the property.

Radiological surveys conducted following removal of contaminated materials, but before property restoration, demonstrate that the accessible portions of the property have been cleaned up to the EPA standards, in those areas where excavation was performed. Supplemental standards are being applied to the areas on the steep slopes on the property where contamination remains. This completion report recommends that the DOE review the radiological data provided for the property, and annotate the land records to reflect the application of supplemental standards.

2.0 OPERATIONS SUMMARY

2.1 Remedial Action Plan

The basic remedial action on this property was performed according to the Remedial Action Plan. A total of 3944 cubic yards of soil was removed from the property, compared with an estimated excavation of 3332 cubic yard of soil.

2.2 Previously Unidentified Contamination

No new areas of contamination were identified during remedial action. However, the limits of contamination were greater than estimated.

2.3 Unanticipated Items During Remedial Action

No unanticipated items occurred during remedial action on this property.

3.0 VERIFICATION SUMMARY

3.1 Radiological Survey Data

All survey data were acquired according to approved procedures.

3.1.1 Pre-Remedial Action Survey

The results of the survey defining the contaminated area requiring remedial action are presented on Drawing DU-059-015.

3.1.2 Pre-Restoration Survey

Exterior:

After removal of contamination, and prior to backfilling, a soil sample survey was conducted in the excavated areas. Soil samples were aliquoted from the 263 verification grids and analyzed by gamma spectroscopy with the opposed crystal system in accordance with Health Physics Procedure 015. The radium concentration in these soil samples ranged from less than 1.5 to 8.4 pCi/g, as described in Table 3.1. See Appendix 'A' for the radiological survey data.

Drawing DU-059-020 shows the actual areas of excavation.

These results confirm that exterior contamination has been reduced in the excavated areas to levels below the EPA standards for radium in soil. Background for the Durango site is 1.6 pCi/g Ra-226.

Sporadic windblown contamination remains on the steep slopes of the property where supplemental standards are applied. Areas where contamination remains in place are shown on Drawing DU-059-035.

Interior

No remedial action was performed indoors on this property. The house was demolished and not rebuilt.

3.1.3 JUSTIFICATION CHECKLIST FOR APPLICATION OF SUPPLEMENTAL STANDARDS

Application of Supplemental Standards (SS) is in accordance with 40 CFR 192.22, Subpart (x) (check appropriate Subpart):

- ☐ a) Risk injury to worker/public
- ☐ b) Environmental harm
- ☒ c) High cost relative to long-term benefits
- ☐ d) High cost of cleaning up building relative to benefits
- ☐ e) No known remedial action
- ☐ f) Radionuclides other than Ra-226 exist

Brief Condition Description and Justification:

Wind blown contamination is present on portions of the steep slopes of this property. From conversations with the owners representative, the property is for sale and will most likely be developed for commercial use. All the flat areas and accessible portions of the slopes, where development could occur, have been remediated to meet EPA Standards. However, due to the steepness of the slopes where contamination in excess of EPA Standards remains, development is not probable.

The contamination left in place relative to the health risks are minimal. If a person spent 8 hours a day 5 days a week for 50 weeks in the area of maximum gamma exposure rate (37 micro R/hr), he would receive about 75 millirem of gamma exposure in one year. This is about 15% of the amount allowed the general public (10 CFR 20.105).

| Yes | No | If Supplemental Standards are Applied: |
|-----|-----|--|
| X | | 1. Open Land? |
| | N/A | 2. Occupied Building? |
| | N/A | 3. If yes to No. 2, is contaminated area beneath or within 10 feet of a building? |
| X | | 4. Anticipated change of land use within the next 5 years? |
| | X | 5. If yes to No. 4, then will land use produce health risk? |
| | X | 6. Is contamination in a habitable area? |
| X | | 7. Have owners comments been solicited? (Attach comments or record of teleconference). (See Appendix C). |

Estimated volume of contaminated material to remain = 4,083 (cy).

Contaminated area to remain = 24,418 (sy).

Range for contaminated areas = 12 to 37 (micro r/hr) [at 3 feet above surface].

Range Ra-226 concentration in soil in contaminated area = 0.8 to 18.8 (pCi/g).

If tailings are below or within 10 feet of the structure, radon daughter concentration = N/A (WL).

3.2 Recommendation for Certification

3.2.1 Exterior:

Four areas of contamination were identified and removed. Soil samples after excavation and prior to backfilling indicate that the limits of 5 pCi/g in the surface 15 cm. and 15 pCi/g in any 15 cm. layer below the surface are not exceeded in those areas where excavation was performed. Supplemental standards are being applied to the areas on the steep slopes on the property. For those areas where excavation was performed we recommend that the exterior of this vicinity property be certified to be in compliance with EPA standards for the UMTRA Project.

3.2.2 Interior:

The house was demolished and never rebuilt.

Vicinity Property No. DU-059S

Table 3.1
SOIL VERIFICATION DATA
Property DU-059

| GRID ID | APPROXIMATE DEPTH | Ra-226 (pCi/g) FINAL CONCENTRATION |
|---------|----------------------|--|
| 1 | 15 | 3.97 |
| 2 | 15 | 2.04 |
| 3 | 15 | 1.58 |
| 4 | 15 | 3.07 |
| 5 | 15 | 3.75 |
| 6 | 15 | 2.46 |
| 7 | 15 | 1.56 |
| 8 | 15 | 1.55 |
| 9 | 15 | 1.71 |
| 10 | 15 | 2.47 |
| 11 | 15 | 3.36 |
| 12 | 15 | 2.82 |
| 13 | 15 | 4.59 |
| 14 | 15 | 1.58 |
| 15 | 15 | 3.05 |
| 16 | 15 | 2.59 |
| 17 | 15 | 2.64 |
| 18 | 15 | 1.96 |
| 19 | 15 | 2.39 |
| 20 | 15 | 3.13 |
| | 15 | 3.35 Duplicate |

Table 3.1 Cont'd.
SOIL VERIFICATION DATA
Property DU-059

| GRID ID | APPROXIMATE DEPTH | Ra-226 (pCi/g) FINAL CONCENTRATION |
|---------|----------------------|--|
| 21 | 15 | 3.02 |
| 22 | 15 | 1.59 |
| 23 | 15 | 1.53 |
| 24 | 15 | 1.94 |
| 25 | 15 | 2.24 |
| 26 | 15 | 6.25 |
| 27 | 15 | 3.81 |
| 28 | 15 | 1.91 |
| 29 | 15 | 4.78 |
| 30 | 15 | 3.22 |
| 31 | 15 | 3.33 |
| 32 | 15 | 1.86 |
| 33 | 15 | 2.42 |
| 34 | 15 | 2.63 |
| 35 | 15 | 3.50 |
| 36 | 15 | 1.93 |
| 37 | 15 | 2.08 |
| 38 | 15 | 3.90 |
| 39 | 15 | 3.26 |
| 40 | 15 | 1.44 |
| | 15 | 1.96 Duplicate |
| 41 | 15 | 1.47 |

Table 3.1 Cont'd.
SOIL VERIFICATION DATA
Property DU-059

| GRID ID | APPROXIMATE DEPTH | Ra-226 (pCi/g) FINAL CONCENTRATION |
|---------|----------------------|--|
| 42 | 15 | 1.41 |
| 43 | 15 | 1.82 |
| 44 | 15 | 1.87 |
| 45 | 15 | 5.46 |
| 46 | 15 | 2.80 |
| 47 | 15 | 2.48 |
| 48 | 15 | 1.65 |
| 49 | 15 | <1.5 |
| 50 | 15 | <1.5 |
| 51 | 15 | 1.15 |
| 52 | 15 | 5.29 |
| 53 | 15 | 2.90 |
| 54 | 15 | 1.75 |
| 55 | 15 | 3.05 |
| 56 | 15 | 4.83 |
| 57 | 15 | 2.57 |
| 58 | 15 | 3.37 |
| 59 | 15 | 3.15 |
| 60 | 15 | 2.70 |
| | 15 | 2.12 Duplicate |
| 61 | 15 | 3.49 |

Table 3.1 Cont'd.
SOIL VERIFICATION DATA
Property DU-059

| GRID ID | APPROXIMATE DEPTH | Ra-226 (pCi/g) FINAL CONCENTRATION |
|---------|----------------------|--|
| 62 | 15 | 1.88 |
| 63 | 15 | 1.47 |
| 64 | 15 | 1.49 |
| 65 | 15 | 1.82 |
| 66 | 15 | <MDA |
| 67 | 15 | 2.92 |
| 68 | 15 | 4.45 |
| 69 | 15 | 3.18 |
| 70 | 15 | 1.38 |
| 71 | 15 | 2.15 |
| 72 | 15 | 2.42 |
| 73 | 15 | 1.28 |
| 74 | 15 | 1.51 |
| 75 | 15 | 5.46 |
| 76 | 15 | 1.93 |
| 77 | 15 | 2.19 |
| 78 | 15 | 2.31 |
| 79 | 15 | 1.31 |
| 80 | 15 | 2.82 |
| | 15 | 1.42 Duplicate |
| 81 | 15 | 2.10 |

Table 3.1 Cont'd.
SOIL VERIFICATION DATA
Property DU-059

| GRID ID | APPROXIMATE DEPTH | Ra-226 (pCi/g) FINAL CONCENTRATION |
|---------|----------------------|--|
| 82 | 15 | 1.22 |
| 83 | 15 | 1.17 |
| 84 | 15 | <1.5 |
| 85 | 15 | 1.36 |
| 86 | 15 | 2.64 |
| 87 | 15 | 1.31 |
| 88 | 15 | 1.47 |
| 89 | 15 | 1.72 |
| 90 | 15 | 2.73 |
| 91 | 15 | 2.68 |
| 92 | 15 | 2.43 |
| 93 | 15 | 1.09 |
| 94 | 15 | 2.12 |
| 95 | 15 | 2.14 |
| 96 | 15 | 2.28 |
| 97 | 15 | 1.99 |
| 98 | 15 | 1.33 |
| 99 | 15 | 1.83 |
| 100 | 15 | <1.5 |
| | 15 | 1.25 Duplicate |

Vicinity Property No. DU-059S

Table 3.1 Cont'd.
SOIL VERIFICATION DATA
Property DU-059

| GRID ID | APPROXIMATE DEPTH | Ra-226 (pCi/g) FINAL CONCENTRATION |
|---------|----------------------|--|
| 101 | 15 | 2.25 |
| 102 | 15 | <1.5 |
| 103 | 15 | 1.56 |
| 104 | 15 | <1.5 |
| 105 | 15 | 1.90 |
| 106 | 15 | 1.64 |
| 107 | 15 | 1.70 |
| 108 | 15 | 1.53 |
| 109 | 15 | 1.70 |
| 110 | 15 | 3.03 |
| 111 | 15 | 2.00 |
| 112 | 15 | 1.69 |
| 113 | 15 | <MDA |
| 114 | 15 | 1.39 |
| 115 | 15 | 2.34 |
| 116 | 15 | 1.63 |
| 117 | 15 | 1.43 |
| 118 | 15 | 1.64 |
| 119 | 15 | 2.09 |
| 120 | 15 | 3.27 |
| | 15 | 1.89 Duplicate |

Vicinity Property No. DU-059S

Table 3.1 Cont'd.
SOIL VERIFICATION DATA
Property DU-059

| GRID ID | APPROXIMATE DEPTH | Ra-226 (pCi/g) FINAL CONCENTRATION |
|---------|----------------------|--|
| 121 | 15 | 1.77 |
| 122 | 15 | 2.57 |
| 123 | 15 | 2.77 |
| 124 | 15 | 2.33 |
| 125 | 15 | 2.51 |
| 126 | 15 | 2.06 |
| 127 | 15 | 2.70 |
| 128 | 15 | 1.54 |
| 129 | 15 | 1.49 |
| 130 | 15 | 2.45 |
| 131 | 15 | 1.58 |
| 132 | 15 | 1.89 |
| 133 | 15 | 1.33 |
| 134 | 15 | 2.50 |
| 135 | 15 | 2.37 |
| 136 | 15 | 1.88 |
| 137 | 15 | <1.5 |
| 138 | 15 | 1.93 |
| 139 | 15 | <MDA |
| 140 | 15 | 2.29 |
| | 15 | <1.5 |

Table 3.1 Cont'd.
SOIL VERIFICATION DATA
Property DU-059

| GRID ID | APPROXIMATE DEPTH | Ra-226 (pCi/g) FINAL CONCENTRATION |
|---------|----------------------|--|
| 141 | 15 | <1.5 |
| 142 | 15 | 1.87 |
| 143 | 15 | 1.27 |
| 144 | 15 | 1.95 |
| 145 | 15 | 2.25 |
| 146 | 15 | 2.31 |
| 147 | 15 | 2.18 |
| 148 | 15 | 2.50 |
| 149 | 15 | 1.16 |
| 150 | 15 | <1.5 |
| 151 | 15 | 1.57 |
| 152 | 15 | 1.39 |
| 153 | 15 | 2.26 |
| 154 | 15 | 1.85 |
| 155 | 15 | 1.80 |
| 156 | 15 | 1.69 |
| 157 | 15 | 1.74 |
| 158 | 15 | 2.36 |
| 159 | 15 | 5.32 |

Table 3.1 Cont'd.
SOIL VERIFICATION DATA
Property DU-059

| GRID ID | APPROXIMATE DEPTH | Ra-226 (pCi/g) FINAL CONCENTRATION |
|---------|----------------------|--|
| 160 | 15 | 3.23 |
| | 15 | 3.13 Duplicate |
| 161 | 15 | 3.69 |
| 162 | 15 | 2.00 |
| 163 | 15 | 2.06 |
| 164 | 15 | 2.56 |
| 165 | 15 | 2.01 |
| 166 | 15 | <1.5 |
| 167 | 15 | 1.89 |
| 168 | 15 | 1.62 |
| 169 | 15 | 1.55 |
| 170 | 15 | 2.50 |
| 171 | 15 | 3.22 |
| 172 | 15 | 3.57 |
| 173 | 15 | 1.67 |
| 174 | 15 | 4.13 |
| 175 | 15 | 2.49 |
| 176 | 15 | 2.47 |
| 177 | 15 | 2.53 |

Vicinity Property No. DU-059S

Table 3.1 Cont'd.
SOIL VERIFICATION DATA
Property DU-059

| GRID ID | APPROXIMATE DEPTH | Ra-226 (pCi/g) FINAL CONCENTRATION |
|---------|----------------------|--|
| 178 | 15 | 2.38 |
| 179 | 15 | 3.15 |
| 180 | 15 | 2.36 |
| | 15 | 2.15 Duplicate |
| 181 | 15 | 2.99 |
| 182 | 15 | 2.81 |
| 183 | 15 | 2.50 |
| 184 | 15 | 3.82 |
| 185 | 15 | 2.01 |
| 186 | 15 | 1.80 |
| 187 | 15 | 2.09 |
| 188 | 15 | 1.97 |
| 189 | 15 | 1.86 |
| 190 | 15 | 3.64 |
| 191 | 15 | 4.04 |
| 192 | 15 | 2.46 |
| 193 | 15 | 2.62 |
| 194 | 15 | 1.79 |
| 195 | 15 | 3.54 |
| 196 | 15 | 2.86 |
| 197 | 15 | 3.91 |
| 198 | 15 | 1.78 |

Vicinity Property No. DU-059S

Table 3.1 Cont'd.
SOIL VERIFICATION DATA
Property DU-059

| GRID ID | APPROXIMATE DEPTH | Ra-226 (pCi/g) FINAL CONCENTRATION |
|---------|----------------------|--|
| 199 | 15 | 2.15 |
| 200 | 15 | 2.14 |
| | 15 | 2.11 Duplicate |
| 201 | 15 | 2.81 |
| 202 | 15 | 3.60 |
| 203 | 31 | 2.99 |
| 204 | 31 | 2.46 |
| 205 | 31 | 2.73 |
| 206 | 31 | 4.62 |
| 207 | 31 | 3.39 |
| 208 | 31 | 3.13 |
| 209 | 31 | 3.39 |
| 210 | 31 | 4.40 |
| 211 | 31 | 6.93 |
| 212 | 31 | 3.03 |
| 213 | 31 | 2.99 |
| 214 | 31 | 3.12 |
| 215 | 31 | 3.03 |
| 216 | 31 | 2.15 |
| 217 | 31 | 3.03 |

Table 3.1 Cont'd.
SOIL VERIFICATION DATA
Property DU-059

| GRID ID | APPROXIMATE DEPTH | Ra-226 (pCi/g) FINAL CONCENTRATION |
|---------|----------------------|--|
| 218 | 31 | 4.64 |
| 219 | 31 | 5.46 |
| 220 | 31 | 2.03 |
| | 31 | 2.44 |
| 221 | 31 | 2.04 |
| 222 | 31 | 2.25 |
| 223 | 31 | 4.85 |
| 224 | 31 | 3.72 |
| 225 | 31 | 3.79 |
| 226 | 31 | 1.68 |
| 227 | 31 | 1.98 |
| 228 | 31 | 1.83 |
| 229 | 31 | 1.83 |
| 230 | 31 | 2.03 |
| 231 | 31 | 5.28 |
| 232 | 31 | 3.64 |
| 233 | 31 | 2.04 |
| 234 | 31 | 2.95 |
| 235 | 31 | 3.68 |
| 236 | 31 | 1.95 |
| 237 | 31 | 4.33 |

Vicinity Property No. DU-059S

Table 3.1 Cont'd.
SOIL VERIFICATION DATA
Property DU-059

| GRID ID | APPROXIMATE DEPTH | Ra-226 (pCi/g) FINAL CONCENTRATION |
|----------|----------------------|--|
| 238 | 31 | 4.45 |
| 239 | 31 | 8.41 |
| 240 | 15 | 3.68 |
| 241 | 15 | 2.1 |
| 242 | 15 | 3.0 |
| 243 | 15 | 3.7 |
| 244 | 15 | 4.1 |
| 245 | 15 | 2.7 |
| 246 | 15 | 2.6 |
| 247 | 15 | 2.6 |
| 248 | 15 | 3.8 |
| 249 | 15 | 6.1 |
| 250 | 15 | 3.2 |
| 251 | 15 | 3.4 |
| 252 | 15 | 4.3 |
| 253 | 15 | 3.1 |
| 254 | 15 | 2.8 |
| 255/255D | 15 | 3.2/4.2 |
| 256 | 15 | 2.1 |
| 257 | 15 | 3.2/<1.5 |
| 258 | 15 | 3.3 |
| 259 | 15 | 1.8 |

Vicinity Property No. DU-059S

Table 3.1 Cont'd.
SOIL VERIFICATION DATA
Property DU-059

| GRID ID | APPROXIMATE DEPTH | Ra-226 (pCi/g) FINAL CONCENTRATION |
|---------|----------------------|--|
| 260 | 15 | 2.2 |
| 261 | 15 | <1.5 |
| 262 | 15 | 2.3 |
| 263 | 15 | 4.4 |

Vicinity Property No. DU-059S

Table 3.2A
EAST SLOPE SURFACE SOIL SAMPLE SURVEY
Property DU-059

| SAMPLE ID | LOCATION (Property Point) | DEPTH (Inches) | Ra-226 CONCENTRATION (pCi/g) |
|------------|------------------------------|-------------------|---------------------------------|
| DU-SS-8787 | 1 | 0 - 6 | 4.5 |
| DU-SS-8881 | 2 | 6 - 12 | 1.4 |
| DU-SS-8897 | 3 | 0 - 6 | 1.8 |
| DU-SS-8779 | 4 | 6 - 12 | 1.9 |
| DU-SS-8770 | 5 | 0 - 6 | 3.6 |
| DU-SS-8889 | 6 | 6 - 12 | 1.7 |
| DU-SS-8901 | 7 | 0 - 6 | 1.4 |
| DU-SS-8841 | 8 | 6 - 12 | 0.9 |
| DU-SS-8788 | 9 | 0 - 6 | 4.4 |
| DU-SS-8891 | 10 | 6 - 12 | 5.6 |
| DU-SS-8796 | 11 | 0 - 6 | 4.9 |
| DU-SS-8807 | 12 | 6 - 12 | 2.4 |
| DJ-SS-8828 | 13 | 0 - 6 | 1.9 |
| DU-SS-8860 | 14 | 6 - 12 | 1.2 |
| DU-SS-8885 | 15 | 0 - 6 | 2.7 |
| DU-SS-8886 | 16 | 6 - 12 | 1.5 |
| DU-SS-8895 | 17 | 0 - 6 | 3.5 |
| DU-SS-8914 | 18 | 6 - 12 | 3.6 |
| DU-SS-8859 | 19 | 0 - 6 | 7.0 |
| DU-SS-8879 | 20 | 6 - 12 | 5.0 |

Vicinity Property No. DU-059S

Table 3.2A Cont'd.
EAST SLOPE SURFACE SOIL SAMPLE SURVEY
Property DU-059

| SAMPLE ID | LOCATION (Property Point) | DEPTH (Inches) | Ra-226 CONCENTRATION (pCi/g) |
|------------|------------------------------|-------------------|---------------------------------|
| DU-SS-8856 | 21 | 6 - 12 | 2.4 |
| DU-SS-8858 | 22 | 0 - 6 | 5.7 |
| DU-SS-8813 | 23 | 0 - 6 | 7.8 |
| DU-SS-8873 | 24 | 6 - 12 | 2.5 |
| DU-SS-8872 | 25 | 0 - 6 | 6.6 |
| DU-SS-8882 | 26 | 6 - 12 | 2.6 |
| DU-SS-8863 | 27 | 6 - 12 | 2.4 |
| DU-SS-8866 | 28 | 0 - 6 | 4.7 |
| DU-SS-8850 | 29 | 0 - 6 | 3.3 |
| DU-SS-8875 | 30 | 6 - 12 | 3.4 |
| DU-SS-8829 | 31 | 0 - 6 | 7.3 |
| DU-SS-8874 | 32 | 6 - 12 | 2.1 |
| DU-SS-8847 | 33 | 0 - 6 | 6.7 |
| DU-SS-8844 | 34 | 6 - 12 | 3.3 |
| DU-SS-8826 | 35 | 6 - 12 | 1.3 |
| DU-SS-8869 | 36 | 0 - 6 | 2.1 |
| DU-SS-8816 | 37 | 0 - 6 | 7.5 |
| DU-SS-8846 | 38 | 6 - 12 | 4.5 |
| DU-SS-8782 | 39 | 0 - 6 | 1.4 |
| DU-SS-8868 | 40 | 6 - 12 | 1.6 |
| DU-SS-8814 | 41 | 0 - 6 | 4.2 |

Table 3.2A Cont'd.
EAST SLOPE SURFACE SOIL SAMPLE SURVEY
Property DU-059

| SAMPLE ID | LOCATION (Property Point) | DEPTH (Inches) | Ra-226 CONCENTRATION (pci/g) |
|------------|------------------------------|-------------------|---------------------------------|
| DU-SS-8820 | 42 | 6 - 12 | 1.1 |
| DU-SS-8831 | 43 | 0 - 6 | 5.2 |
| DU-SS-8809 | 44 | 6 - 12 | 5.8 |
| DU-SS-8908 | 45 | 0 - 6 | 11.8 |
| DU-SS-8834 | 46 | 6 - 12 | 1.4 |
| DU-SS-8871 | 47 | 0 - 6 | 3.5 |
| DU-SS-8798 | 48 | 6 - 12 | 1.5 |
| DU-SS-8852 | 49 | 0 - 6 | 1.7 |
| DU-SS-8862 | 50 | 0 - 6 | 7.8 |
| DU-SS-8915 | 51 | 6 - 12 | 3.9 |
| DU-SS-8819 | 52 | 6 - 12 | 4.4 |
| DU-SS-8855 | 53 | 0 - 6 | 9.4 |
| DU-SS-8853 | 54 | 6 - 12 | 3.6 |
| DU-SS-8878 | 55 | 0 - 6 | 6.8 |
| DU-SS-8773 | 56 | 6 - 12 | 1.4 |
| DU-SS-8912 | 57 | 0 - 6 | 5.4 |
| DU-SS-8848 | 58 | 0 - 6 | 2.1 |
| DU-SS-8880 | 59 | 6 - 12 | 0.8 |
| DU-SS-8785 | 60 | 6 - 12 | 1.7 |
| DU-SS-8864 | 61 | 0 - 6 | 1.5 |
| DU-SS-8780 | 62 | 6 - 12 | 4.2 |

Table 3.2A Cont'd.
EAST SLOPE SURFACE SOIL SAMPLE SURVEY
Property DU-059

| SAMPLE ID | LOCATION (Property Point) | DEPTH (Inches) | Ra-226 CONCENTRATION (pCi/g) |
|------------|------------------------------|-------------------|---------------------------------|
| DU-SS-8843 | 63 | 0 - 6 | 7.0 |
| DU-SS-8854 | 64 | 6 - 12 | 0.9 |
| DU-SS-8916 | 65 | 0 - 6 | 2.6 |

Vicinity Property No. DU-059S

Table 3.2B
GRID SOIL SAMPLE SURVEY
Property DU-059

| SAMPLE ID | LOCATION (Property Grid) | DEPTH (Inches) | ESTIMATED FINAL Ra-226 CONCENTRATION (pCi/g) |
|-------------|-----------------------------|-------------------|--|
| DU-SS-12405 | 059-1 | 0-6 | 2.79 |
| DU-SS-12406 | 059-2 | 0-6 | 6.19 |
| DU-SS-12407 | 059-3 | 0-6 | 4.72 |
| DU-SS-12408 | 059-4 | 0-6 | 3.64 |
| DU-SS-12409 | 059-5 | 0-6 | 5.23 |
| DU-SS-12410 | 059-6 | 0-6 | 4.99 |
| DU-SS-12418 | 059-7 | 0-6 | 3.50 |
| DU-SS-12419 | 059-8 | 0-6 | 2.30 |
| DU-SS-12420 | 059-9 | 0-6 | 3.04 |
| DU-SS-12421 | 059-10 | 0-6 | 3.48 |
| DU-SS-12422 | 059-11 | 0-6 | 2.61 |
| DU-SS-12423 | 059-12 | 0-6 | 2.17 |
| DU-SS-12424 | 059-13 | 0-6 | 2.13 |
| DU-SS-12425 | 059-14 | 0-6 | 2.89 |
| DU-SS-12426 | 059-15 | 0-6 | 2.99 |
| DU-SS-12427 | 059-16 | 0-6 | 2.13 |
| DU-SS-12428 | 059-17 | 0-6 | 2.84 |
| DU-SS-12445 | 059- 8 | 0-6 | 3.03 |
| DU-SS-12446 | 059-19 | 0-6 | 2.81 |
| DU-SS-12447 | 059-20 | 0-6 | 2.77 |
| DU-SS-12448 | 059-21 | 0-6 | 4.26 |

Vicinity Property No. DU-059S

Table 3.2B Cont'd.
GRID SOIL SAMPLE SURVEY
Property DU-059

| SAMPLE ID | LOCATION (Property Grid) | DEPTH (Inches) | ESTIMATED FINAL Ra-226 CONCENTRATION (pCi/g) |
|-------------|-----------------------------|-------------------|--|
| DU-SS-12449 | 059-22 | 0-6 | 6.59 |
| DU-SS-12450 | 059-23 | 0-6 | 6.35 |
| DU-SS-12451 | 059-24 | 0-6 | 4.64 |
| DU-SS-12452 | 059-25 | 0-6 | 3.22 |
| DU-SS-12453 | 059-26 | 0-6 | 2.81 |
| DU-SS-12454 | 059-27 | 0-6 | 2.65 |
| DU-SS-12455 | 059-28 | 0-6 | 2.44 |
| DU-SS-12456 | 059-29 | 0-6 | 3.73 |
| DU-SS-12457 | 059-30 | 0-6 | 5.85 |
| DU-SS-12458 | 059-31 | 0-6 | 5.30 |
| DU-SS-12459 | 059-32 | 0-6 | 3.04 |
| DU-SS-12460 | 059-33 | 0-6 | 2.49 |
| DU-SS-12461 | 059-34 | 0-6 | 4.28 |
| DU-SS-12462 | 059-35 | 0-6 | 3.76 |
| DU-SS-12463 | 059-36 | 0-6 | 2.75 |
| DU-SS-12464 | 059-37 | 0-6 | 4.27 |
| DU-SS-12465 | 059-38 | 0-6 | 2.99 |
| DU-SS-12466 | 059-39 | 0-6 | 3.53 |
| DU-SS-12466 | 059-40 | 0-6 | 3.73 |
| DU-SS-12468 | 059-41 | 0-6 | 5.45 |

Vicinity Property No. DU-059S

Table 3.2B Cont'd.
GRID SOIL SAMPLE SURVEY
Property DU-059

| SAMPLE ID | LOCATION (Property Grid) | DEPTH (Inches) | ESTIMATED FINAL Ra-226 CONCENTRATION (pCi/g) |
|-------------|-----------------------------|-------------------|--|
| DU-SS-12469 | 059-42 | 0-6 | 2.19 |
| DU-SS-12524 | 059-43 | 0-6 | 5.74 |
| DU-SS-12525 | 059-44 | 0-6 | 3.80 |
| DU-SS-12526 | 059-45 | 0-6 | 6.88 |
| DU-SS-12527 | 059-46 | 0-6 | 9.01 |
| DU-SS-12528 | 059-47 | 0-6 | 9.15 |
| DU-SS-12529 | 059-48 | 0-6 | 5.37 |
| DU-SS-12530 | 059-49 | 0-6 | 3.34 |
| DU-SS-12531 | 059-50 | 0-6 | 4.2 |
| DU-SS-12532 | 059-51 | 0-6 | 2.13 |
| DU-SS-12533 | 059-52 | 0-6 | 3.34 |
| DU-SS-12534 | 059-53 | 0-6 | 2.13 |
| DU-SS-12535 | 059-54 | 0-6 | 10.08 |
| DU-SS-12536 | 059-55 | 0-6 | 6.04 |
| DU-SS-12537 | 059-56 | 0-6 | 3.95 |
| DU-SS-12538 | 059-57 | 0-6 | 5.91 |
| DU-SS-12539 | 059-58 | 0-6 | 6.5 |
| DU-SS-12540 | 059-59 | 0-6 | 10.68 |
| DU-SS-12541 | 059-60 | 0-6 | 9.15 |
| DU-SS-12542 | 059-61 | 0-6 | 6.31 |
| DU-SS-12543 | 059-62 | 0-6 | 5.03 |
| DU-SS-12544 | 059-63 | 0-6 | 7.00 |

Vicinity Property No. DU-059S

Table 3.2B Cont'd.
GRID SOIL SAMPLE SURVEY
Property DU-059

| SAMPLE ID | LOCATION (Property Grid) | DEPTH (Inches) | ESTIMATED FINAL Ra-226 CONCENTRATION (pCi/g) |
|-------------|-----------------------------|-------------------|--|
| DU-SS-12545 | 059-64 | 0-6 | 3.08 |
| DU-SS-12546 | 059-65 | 0-6 | 3.72 |
| DU-SS-12547 | 059-66 | 0-6 | 4.69 |
| DU-SS-12548 | 059-67 | 0-6 | 2.95 |
| DU-SS-12549 | 059-68 | 0-6 | 6.49 |
| DU-SS-12550 | 059-69 | 0-6 | 8.78 |
| DU-SS-12551 | 059-70 | 0-6 | 6.61 |
| DU-SS-12552 | 059-71 | 0-6 | 5.30 |
| DU-SS-12553 | 059-72 | 0-6 | 5.20 |
| DU-SS-12554 | 059-73 | 0-6 | 5.80 |
| DU-SS-12555 | 059-74 | 0-6 | 4.46 |
| DU-SS-12556 | 059-75 | 0-6 | 2.31 |
| DU-SS-12557 | 059-76 | 0-6 | 3.06 |
| DU-SS-12558 | 059-77 | 0-6 | 6.30 |
| DU-SS-12559 | 059-78 | 0-6 | 9.07 |
| DU-SS-12560 | 059-79 | 0-6 | 3.43 |
| DU-SS-12561 | 059-80 | 0-6 | 2.57 |
| DU-SS-12562 | 059-81 | 0-6 | 9.25 |
| DU-SS-12563 | 059-82 | 0-6 | 5.47 |
| DU-SS-12564 | 059-83 | 0-6 | 6.39 |
| DU-SS-12565 | 059-84 | 0-6 | 3.06 |

Vicinity Property No. DU-059S

Table 3.2B Cont'd.
GRID SOIL SAMPLE SURVEY
Property DU-059

| SAMPLE ID | LOCATION (Property Grid) | DEPTH (Inches) | ESTIMATED FINAL Ra-226 CONCENTRATION (pCi/g) |
|-------------|-----------------------------|-------------------|--|
| DU-SS-12566 | 059-85 | 0-6 | 6.24 |
| DU-SS-12567 | 059-86 | 0-6 | 6.70 |
| DU-SS-12568 | 059-87 | 0-6 | 6.65 |
| DU-SS-12569 | 059-88 | 0-6 | 5.07 |
| DU-SS-12570 | 059-89 | 0-6 | 2.53 |
| DU-SS-12571 | 059-90 | 0-6 | 7.00 |
| DU-SS-12572 | 059-91 | 0-6 | 9.13 |
| DU-SS-12573 | 059-92 | 0-6 | 5.73 |
| DU-SS-12574 | 059-93 | 0-6 | 2.91 |
| DU-SS-12575 | 059-94 | 0-6 | 9.91 |
| DU-SS-12576 | 059-95 | 0-6 | 13.85 |
| DU-SS-12577 | 059-96 | 0-6 | 15.11 |
| DU-22-12578 | 059-97 | 0-6 | 6.85 |
| DU-SS-12579 | 059-98 | 0-6 | 13.93 |
| DU-SS-12580 | 059-99 | 0-6 | 13.73 |
| DU-SS-12581 | 059-100 | 0-6 | 10.60 |
| DU-SS-12582 | 059-101 | 0-6 | 4.61 |
| DU-SS-12583 | 059-102 | 0-6 | 12.88 |
| DU-SS-12584 | 059-103 | 0-6 | 2.72 |
| DU-SS-12585 | 059-104 | 0-6 | 6.27 |

Vicinity Property No. DU-059S

Table 3.2B Cont'd.
GRID SOIL SAMPLE SURVEY
Property DU-059

| SAMPLE ID | LOCATION (Property Grid) | DEPTH (Inches) | ESTIMATED FINAL Ra-226 CONCENTRATION (pCi/g) |
|-------------|-----------------------------|-------------------|--|
| DU-SS-12586 | 059-105 | 0-6 | 3.26 |
| DU-SS-12587 | 059-106 | 0-6 | 5.78 |
| DU-SS-12588 | 059-107 | 0-6 | 5.47 |
| DU-SS-12589 | 059-108 | 0-6 | 8.72 |
| DU-SS-12590 | 059-109 | 0-6 | 9.13 |
| DU-SS-12591 | 059-110 | 0-6 | 2.58 |
| DU-SS-12623 | 059-111 | 0-6 | 3.26 |
| DU-SS-12592 | 059-112 | 0-6 | 4.87 |
| DU-SS-12593 | 059-113 | 0-6 | 2.04 |
| DU-SS-12594 | 059-114 | 0-6 | 9.91 |
| DU-SS-12595 | 059-115 | 0-6 | 5.10 |
| DU-SS-12596 | 059-116 | 0-6 | 9.35 |
| DU-SS-12597 | 059-117 | 0-6 | 4.85 |
| DU-SS-12598 | 059-118 | 0-6 | 6.32 |
| DU-SS-12599 | 059-119 | 0-6 | 12.14 |
| DU-SS-12600 | 059-120 | 0-6 | 2.46 |
| DU-SS-12601 | 059-121 | 0-6 | 5.03 |
| DU-SS-12624 | 059-122 | 0-6 | 3.62 |
| DU-SS-12625 | 059-123 | 0-6 | 2.13 |
| DU-SS-12626 | 059-124 | 0-6 | 2.37 |
| DU-SS-12627 | 059-125 | 0-6 | 2.68 |

Vicinity Property No. DU-059S

Table 3.2B Cont'd.
GRID SOIL SAMPLE SURVEY
Property DU-059

| SAMPLE ID | LOCATION (Property Grid) | DEPTH (Inches) | ESTIMATED FINAL Ra-226 CONCENTRATION (pCi/g) |
|-------------|-----------------------------|-------------------|--|
| DU-SS-12628 | 059-126 | 0-6 | 4.02 |
| DU-SS-12631 | 059-127 | 0-6 | 3.60 |
| DU-SS-12632 | 059-128 | 0-6 | 12.16 |
| DU-SS-12633 | 059-129 | 0-6 | 4.65 |
| DU-SS-12634 | 059-130 | 0-6 | 9.83 |
| DU-SS-12635 | 059-131 | 0-6 | 13.45 |
| DU-SS-12630 | 059-132 | 0-6 | 4.92 |
| DU-SS-12636 | 059-133 | 0-6 | 2.13 |
| DU-SS-12629 | 059-134 | 0-6 | 13.25 |
| DU-SS-12637 | 059-135 | 0-6 | 7.03 |
| DU-SS-12638 | 059-136 | 0-6 | 4.73 |
| DU-SS-12639 | 059-137 | 0-6 | 10.08 |
| DU-SS-12640 | 059-138 | 0-6 | 9.23 |
| DU-SS-12641 | 059-139 | 0-6 | 12.32 |
| DU-SS-12642 | 059-140 | 0-6 | 5.28 |
| DU-SS-12643 | 059-141 | 0-6 | 3.76 |
| DU-SS-12644 | 059-142 | 0-6 | 5.34 |
| DU-SS-12645 | 059-143 | 0-6 | 3.58 |
| DU-SS-12646 | 059-144 | 0-6 | 2.27 |
| DU-SS-12647 | 059-145 | 0-6 | 2.92 |

Vicinity Property No. DU-059S

Table 3.2B Cont'd.
GRID SOIL SAMPLE SURVEY
Property DU-059

| SAMPLE ID | LOCATION (Property Grid) | DEPTH (Inches) | ESTIMATED FINAL Ra-226 CONCENTRATION (pCi/g) |
|-------------|-----------------------------|-------------------|--|
| DU-SS-12665 | 059-146 | 0-6 | 3.39 |
| DU-SS-12666 | 059-147 | 0-6 | 2.54 |
| DU-SS-12667 | 059-148 | 0-6 | 4.45 |
| DU-SS-12668 | 059-149 | 0-6 | 2.07 |
| DU-SS-12669 | 059-150 | 0-6 | 5.82 |
| DU-SS-12670 | 059-151 | 0-6 | 5.03 |
| DU-SS-12671 | 059-152 | 0-6 | 10.70 |
| DU-SS-12672 | 059-153 | 0-6 | 10.12 |
| DU-SS-12673 | 059-154 | 0-6 | 18.80 |
| DU-SS-12674 | 059-155 | 0-6 | 3.60 |
| DU-SS-12675 | 059-156 | 0-6 | 5.86 |
| DU-SS-12676 | 059-157 | 0-6 | 9.17 |
| DU-SS-12677 | 059-158 | 0-6 | 6.96 |
| DU-SS-12678 | 059-159 | 0-6 | 5.45 |
| DU-SS-12679 | 059-160 | 0-6 | 2.44 |
| DU-SS-12680 | 059-161 | 0-6 | 5.66 |
| DU-SS-12681 | 059-162 | 0-6 | 7.20 |
| DU-SS-12682 | 059-163 | 0-6 | 15.61 |
| DU-SS-12683 | 059-164 | 0-6 | 3.69 |
| DU-SS-12684 | 059-165 | 0-6 | 4.64 |
| DU-SS-12685 | 059-166 | 0-6 | 4.66 |

Vicinity Property No. DU-059S

Table 3.2B Cont'd.
GRID SOIL SAMPLE SURVEY
Property DU-059

| SAMPLE ID | LOCATION (Property Grid) | DEPTH (Inches) | ESTIMATED FINAL Ra-226 CONCENTRATION (pCi/g) |
|-------------|-----------------------------|-------------------|--|
| DU-SS-12710 | 059-167 | 0-6 | 3.21 |
| DU-SS-12711 | 059-168 | 0-6 | 4.42 |
| DU-SS-12712 | 059-169 | 0-6 | 6.70 |
| DU-SS-12713 | 059-170 | 0-6 | 10.78 |
| DU-SS-12714 | 059-171 | 0-6 | 6.16 |
| DU-SS-12715 | 059-172 | 0-6 | 3.21 |
| DU-SS-12716 | 059-173 | 0-6 | 3.87 |
| DU-SS-12717 | 059-174 | 0-6 | 5.76 |
| DU-SS-12718 | 059-175 | 0-6 | 2.91 |
| DU-SS-12719 | 059-176 | 0-6 | 6.73 |
| DU-SS-12720 | 059-177 | 0-6 | 9.37 |
| DU-SS-12721 | 059-178 | 0-6 | 9.37 |
| DU-SS-12722 | 059-179 | 0-6 | 3.23 |
| DU-SS-12723 | 059-180 | 0-6 | 3.30 |
| DU-SS-12724 | 059-181 | 0-6 | 3.22 |
| DU-SS-12728 | 059-182 | 0-6 | 3.61 |
| DU-SS-12729 | 059-183 | 0-6 | 6.15 |
| DU-SS-12730 | 059-184 | 0-6 | 6.20 |
| DU-SS-12731 | 059-185 | 0-6 | 3.96 |
| DU-SS-12732 | 059-186 | 0-6 | 3.79 |
| DU-SS-12733 | 059-187 | 0-6 | 2.37 |

Vicinity Property No. DU-059S

Table 3.2B Cont'd.
GRID SOIL SAMPLE SURVEY
Property DU-059

| SAMPLE ID | LOCATION (Property Grid) | DEPTH (Inches) | ESTIMATED FINAL Ra-226 CONCENTRATION (pCi/g) |
|-------------|-----------------------------|-------------------|--|
| DU-SS-12734 | 059-188 | 0-6 | 2.71 |
| DU-SS-12735 | 059-189 | 0-6 | 2.13 |
| DU-SS-12736 | 059-190 | 0-6 | 2.13 |
| DU-SS-12737 | 059-191 | 0-6 | 2.56 |
| DU-SS-12738 | 059-192 | 0-6 | 3.02 |
| DU-SS-12739 | 059-193 | 0-6 | 3.50 |
| DU-SS-12740 | 059-194 | 0-6 | 3.81 |
| DU-SS-12741 | 059-195 | 0-6 | 2.62 |
| DU-SS-12742 | 059-196 | 0-6 | 3.35 |
| DU-SS-12743 | 059-197 | 0-6 | 2.13 |
| DU-SS-12744 | 059-198 | 0-6 | 4.03 |
| DU-SS-12745 | 059-199 | 0-6 | 4.20 |
| DU-SS-12746 | 059-200 | 0-6 | 2.99 |
| DU-SS-12747 | 059-201 | 0-6 | 2.14 |
| DU-SS-12748 | 059-202 | 0-6 | 2.31 |
| DU-SS-12749 | 059-203 | 0-6 | 3.58 |
| DU-SS-12785 | 059-229 | 0-6 | 3.18 |
| DU-SS-12786 | 059-230 | 0-6 | 2.11 |
| DU-SS-12787 | 059-231 | 0-6 | 3.93 |
| DU-SS-12788 | 059-232 | 0-6 | 2.23 |

Vicinity Property No. DU-059S

Table 3.2B Cont'd.
GRID SOIL SAMPLE SURVEY
Property DU-059

| SAMPLE ID | LOCATION (Property Grid) | DEPTH (Inches) | ESTIMATED FINAL Ra-226 CONCENTRATION (pCi/g) |
|-------------|-----------------------------|-------------------|--|
| DU-SS-12789 | 059-233 | 0-6 | 2.11 |
| DU-SS-12790 | 059-234 | 0-6 | 2.33 |
| DU-SS-12791 | 059-235 | 0-6 | 2.46 |
| DU-SS-12792 | 059-236 | 0-6 | 2.18 |
| DU-SS-12793 | 059-237 | 0-6 | 2.14 |
| DU-SS-12794 | 059-238 | 0-6 | 4.31 |
| DU-SS-12795 | 059-239 | 0-6 | 2.41 |
| DU-SS-12796 | 059-240 | 0-6 | 2.26 |
| DU-SS-12797 | 059-241 | 0-6 | 2.23 |
| DU-SS-12798 | 059-242 | 0-6 | 2.75 |
| DU-SS-12799 | 059-243 | 0-6 | 2.34 |
| DU-SS-12800 | 059-244 | 0-6 | 3.46 |
| DU-SS-12802 | 059-245 | 0-6 | 2.40 |
| DU-SS-12803 | 059-246 | 0-6 | 2.44 |
| DU-SS-12804 | 059-247 | 0-6 | 3.84 |

Table 3.3A
EAST SLOPE OUTDOOR GAMMA SCREENING
Property DU-059

| LOCATION | CONTACT (micro R/hr) | 1 METER (micro R/hr) |
|----------|-------------------------|-------------------------|
| 1 | 17 | 15 |
| 5 | 18 | 18 |
| 7 | 15 | 13 |
| 9 | 18 | 16 |
| 11 | 15 | 17 |
| 13 | 16 | 17 |
| 15 | 18 | 17 |
| 17 | 16 | 17 |
| 19 | 17 | 16 |
| 21 | 17 | 17 |
| 23 | 21 | 19 |
| 35 | 22 | 21 |
| 37 | 23 | 23 |
| 47 | 24 | 23 |
| 55 | 26 | 26 |
| 59 | 35 | 36 |
| 61 | 31 | 33 |
| 65 | 38 | 37 |

Vicinity Property No. DU-059S

Table 3.3B
GRID OUTDOOR GAMMA SCREENING
Property DU-059

| LOCATION | CONTACT (micro R/hr) | 1 METER (micro R/hr) |
|----------|-------------------------|-------------------------|
| 1 | 18 | 18 |
| 2 | 19 | 18 |
| 3 | 19 | 19 |
| 4 | 19 | 20 |
| 5 | 17 | 17 |
| 6 | 16 | 17 |
| 7 | 19 | 18 |
| 8 | 18 | 18 |
| 9 | 18 | 18 |
| 10 | 19 | 18 |
| 11 | 18 | 18 |
| 12 | 18 | 18 |
| 13 | 18 | 18 |
| 14 | 18 | 19 |
| 15 | 19 | 19 |
| 16 | 20 | 19 |
| 17 | 19 | 19 |
| 18 | 21 | 20 |
| 19 | 20 | 19 |
| 20 | 20 | 19 |

Vicinity Property No. DU-059S

Table 3.3B Cont'd.
GRID OUTDOOR GAMMA SCREENING
Property DU-059

| LOCATION | CONTACT (micro R/hr) | 1 METER (micro R/hr) |
|----------|-------------------------|-------------------------|
| 21 | 20 | 18 |
| 22 | 23 | 19 |
| 23 | 24 | 20 |
| 24 | 23 | 20 |
| 25 | 20 | 18 |
| 26 | 20 | 19 |
| 27 | 17 | 17 |
| 28 | 18 | 18 |
| 29 | 23 | 20 |
| 30 | 24 | 22 |
| 31 | 21 | 20 |
| 32 | 19 | 19 |
| 33 | 19 | 19 |
| 34 | 22 | 21 |
| 35 | 21 | 20 |
| 36 | 19 | 19 |
| 37 | 22 | 20 |
| 38 | 19 | 19 |
| 39 | 19 | 19 |
| 40 | 19 | 19 |
| 41 | 18 | 19 |

Vicinity Property No. DU-059S

Table 3.3B Cont'd.
GRID OUTDOOR GAMMA SCREENING
Property DU-059

| LOCATION | CONTACT (micro R/hr) | 1 METER (micro R/hr) |
|----------|-------------------------|-------------------------|
| 42 | 16 | 19 |
| 43 | 13 | 13 |
| 44 | 15 | 12 |
| 45 | 17 | 15 |
| 46 | 15 | 15 |
| 47 | 16 | 16 |
| 48 | 20 | 18 |
| 49 | 17 | 17 |
| 50 | 14 | 15 |
| 51 | 15 | 16 |
| 52 | 15 | 16 |
| 53 | 18 | 17 |
| 54 | 17 | 17 |
| 55 | 15 | 16 |
| 56 | 21 | 19 |
| 57 | 17 | 17 |
| 58 | 19 | 18 |
| 59 | 19 | 19 |
| 60 | 20 | 19 |
| 61 | 17 | 17 |

Vicinity Property No. DU-059S

Table 3.3B Cont'd.
GRID OUTDOOR GAMMA SCREENING
Property DU-059

| LOCATION | CONTACT (micro R/hr) | 1 METER (micro R/hr) |
|----------|-------------------------|-------------------------|
| 62 | 16 | 17 |
| 63 | 17 | 16 |
| 64 | 17 | 16 |
| 65 | 20 | 18 |
| 66 | 18 | 18 |
| 67 | 22 | 19 |
| 68 | 18 | 18 |
| 69 | 18 | 18 |
| 70 | 18 | 17 |
| 71 | 19 | 18 |
| 72 | 17 | 17 |
| 73 | 17 | 17 |
| 74 | 16 | 16 |
| 75 | 17 | 17 |
| 76 | 16 | 13 |
| 77 | 18 | 17 |
| 78 | 17 | 18 |
| 79 | 19 | 17 |
| 80 | 15 | 16 |
| 81 | 16 | 16 |
| 82 | 18 | 17 |

Vicinity Property No. DU-059S

Table 3.3E Cont'd.
GRID OUTDOOR GAMMA SCREENING
Property DU-059

| LOCATION | CONTACT (micro R/hr) | 1 METER (micro R/hr) |
|----------|-------------------------|-------------------------|
| 83 | 19 | 17 |
| 84 | 17 | 16 |
| 85 | 17 | 16 |
| 86 | 16 | 15 |
| 87 | 14 | 15 |
| 88 | 19 | 18 |
| 89 | 18 | 18 |
| 90 | 19 | 18 |
| 91 | 18 | 17 |
| 92 | 20 | 17 |
| 93 | 19 | 17 |
| 94 | 20 | 18 |
| 95 | 21 | 18 |
| 96 | 22 | 18 |
| 97 | 21 | 17 |
| 98 | 19 | 16 |
| 99 | 20 | 18 |
| 100 | 20 | 18 |
| 101 | 18 | 18 |
| 102 | 25 | 20 |
| 103 | 21 | 18 |

Vicinity Property No. DU-059S

Table 3.3B Cont'd.
GRID OUTDOOR GAMMA SCREENING
Property DU-059

| LOCATION | CONTACT (micro R/hr) | 1 METER (micro R/hr) |
|----------|-------------------------|-------------------------|
| 104 | 20 | 18 |
| 105 | 18 | 16 |
| 106 | 17 | 16 |
| 107 | 18 | 17 |
| 108 | 23 | 23 |
| 109 | 21 | 19 |
| 110 | 18 | 21 |
| 111 | 18 | 17 |
| 112 | 18 | 19 |
| 113 | 20 | 18 |
| 114 | 20 | 17 |
| 115 | 18 | 17 |
| 116 | 20 | 17 |
| 117 | 19 | 18 |
| 118 | 22 | 18 |
| 119 | 22 | 18 |
| 120 | 20 | 18 |
| 121 | 21 | 18 |
| 122 | 16 | 15 |
| 123 | 14 | 14 |
| 124 | 16 | 17 |

Vicinity Property No. DU-059S

Table 3.3B Cont'd.
GRID OUTDOOR GAMMA SCREENING
Property DU-059

| LOCATION | CONTACT (micro R/hr) | 1 METER (micro R/hr) |
|----------|-------------------------|-------------------------|
| 125 | 15 | 16 |
| 126 | 15 | 15 |
| 127 | 18 | 19 |
| 128 | 21 | 19 |
| 129 | 21 | 20 |
| 130 | 20 | 20 |
| 131 | 23 | 21 |
| 132 | 21 | 21 |
| 133 | 16 | 16 |
| 134 | 23 | 17 |
| 135 | 22 | 19 |
| 136 | 19 | 20 |
| 137 | 23 | 19 |
| 138 | 19 | 18 |
| 139 | 20 | 18 |
| 140 | 19 | 18 |
| 141 | 22 | 18 |
| 142 | 16 | 18 |
| 143 | 22 | 18 |
| 144 | 17 | 16 |

Vicinity Property No. DU-059S

Table 3.3B Cont'd.
GRID OUTDOOR GAMMA SCREENING
Property DU-059

| LOCATION | CONTACT (micro R/hr) | 1 METER (micro R/hr) |
|----------|-------------------------|-------------------------|
| 145 | 17 | 18 |
| 146 | 18 | 17 |
| 147 | 26 | 19 |
| 148 | 16 | 17 |
| 149 | 17 | 17 |
| 150 | 18 | 18 |
| 151 | 19 | 19 |
| 152 | 22 | 21 |
| 153 | 29 | 22 |
| 154 | 21 | 23 |
| 155 | 18 | 18 |
| 156 | 21 | 20 |
| 157 | 22 | 21 |
| 158 | 19 | 19 |
| 159 | 24 | 21 |
| 160 | 18 | 18 |
| 161 | 20 | 19 |
| 162 | 20 | 19 |
| 163 | 22 | 23 |
| 164 | 19 | 19 |

Table 3.3B Cont'd.
GRID OUTDOOR GAMMA SCREENING
Property DU-059

| LOCATION | CONTACT (micro R/hr) | 1 METER (micro R/hr) |
|----------|-------------------------|-------------------------|
| 165 | 21 | 20 |
| 166 | 19 | 19 |
| 167 | 19 | 19 |
| 168 | 17 | 18 |
| 169 | 27 | 22 |
| 170 | 29 | 22 |
| 171 | 18 | 18 |
| 172 | 19 | 19 |
| 173 | 21 | 20 |
| 174 | 19 | 18 |
| 175 | 17 | 19 |
| 176 | 27 | 24 |
| 177 | 26 | 24 |
| 178 | 19 | 19 |
| 179 | 18 | 18 |
| 180 | 19 | 19 |
| 181 | 19 | 18 |
| 182 | 24 | 22 |
| 183 | 27 | 24 |
| 184 | 25 | 23 |
| 185 | 19 | 18 |

Vicinity Property No. DU-059S

Table 3.3B Cont'd.
GRID OUTDOOR GAMMA SCREENING
Property DU-059

| LOCATION | CONTACT (micro R/hr) | 1 METER (micro R/hr) |
|----------|-------------------------|-------------------------|
| 186 | 19 | 19 |
| 187 | 19 | 18 |
| 188 | 20 | 19 |
| 189 | 20 | 18 |
| 190 | 19 | 20 |
| 191 | 20 | 19 |
| 192 | 19 | 19 |
| 193 | 20 | 19 |
| 194 | 24 | 22 |
| 195 | 20 | 20 |
| 196 | 20 | 19 |
| 197 | 19 | 19 |
| 198 | 21 | 21 |
| 199 | 20 | 20 |
| 200 | 20 | 20 |
| 201 | 20 | 20 |
| 202 | 19 | 19 |
| 203 | 22 | 20 |
| 228 | 20 | 20 |
| 229 | 20 | 20 |
| 230 | 21 | 20 |

Vicinity Property No. DU-059S

Table 3.3B Cont'd.
GRID OUTDOOR GAMMA SCREENING
Property DU-059

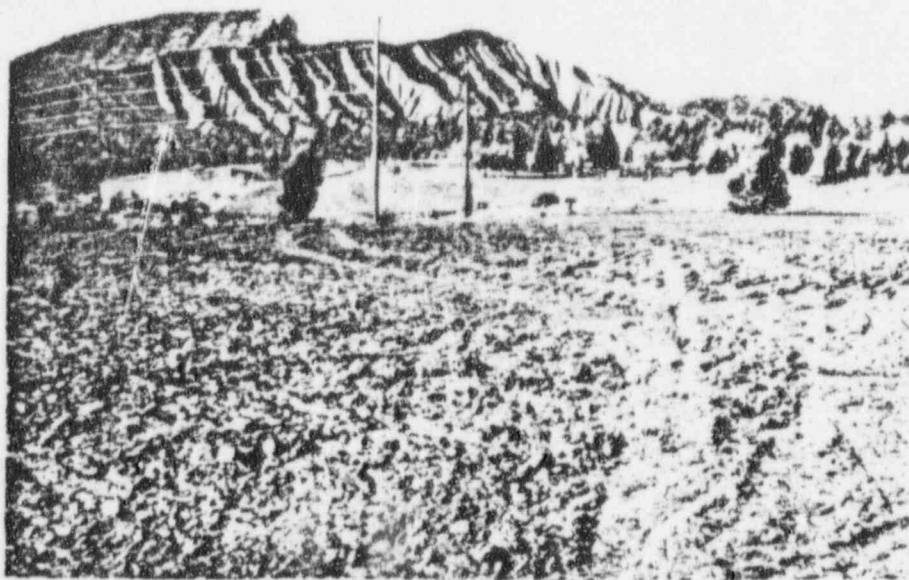
| LOCATION | CONTACT (micro R/hr) | 1 METER (micro R/hr) |
|----------|-------------------------|-------------------------|
| 231 | 20 | 21 |
| 232 | 20 | 21 |
| 233 | 21 | 21 |
| 234 | 21 | 20 |
| 235 | 22 | 21 |
| 236 | 20 | 20 |
| 237 | 19 | 20 |
| 238 | 22 | 21 |
| 239 | 23 | 21 |
| 240 | 21 | 21 |
| 241 | 23 | 21 |
| 242 | 20 | 21 |
| 243 | 22 | 20 |
| 244 | 20 | 20 |
| 245 | 20 | 19 |
| 246 | 20 | 20 |
| 247 | 20 | 22 |

4.0 REFERENCES

- 4.1 Results of the Radiological Survey of Property DU-059; Oak Ridge National Laboratory; Oak Ridge, Tennessee; October, 1986.
- 4.2 The Radiological and Engineering Assessment for Durango Property DU-059; MK-Ferguson Company/Chem-Nuclear Systems, Inc.; Albuquerque, New Mexico; April 1, 1988.
- 4.3 Health Physics Procedures; Chem-Nuclear Systems, Inc., for MK-Ferguson Company, Remedial Action Contractor; Albuquerque, New Mexico; June 1986.
- 4.4 Vicinity Properties Management and Implementation Manual; UMTRAP, U.S. Department of Energy; Albuquerque, New Mexico; August 1986.
- 4.5 Title 40, Code of Federal Regulations, Part 192.12-23; U.S. Environmental Protection Agency; Washington, D.C.; July 1983.



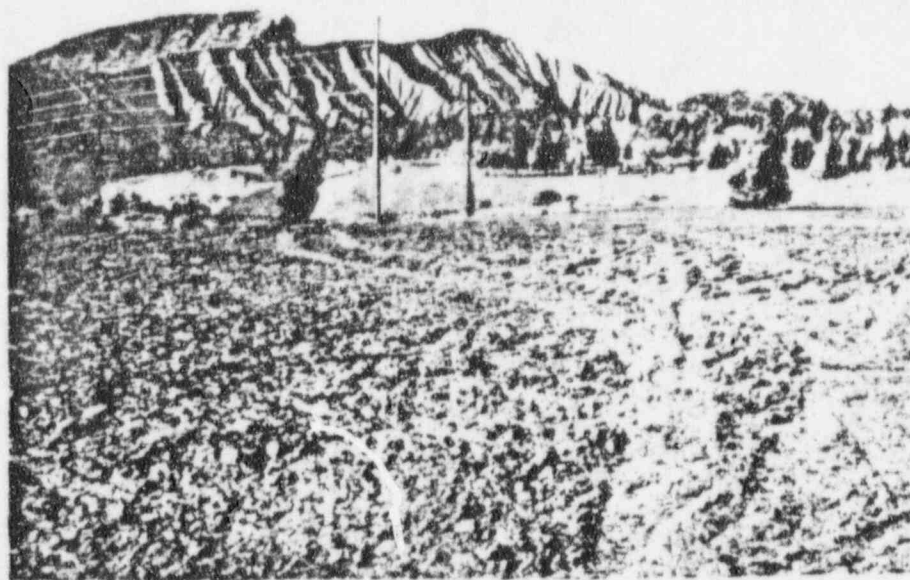
Excavation of Contaminated Material During
Remedial Action, Looking North



Property After Remedial Action, Looking Northwest



Excavation of Contaminated Material During
Remedial Action, Looking North



Property After Remedial Action, Looking Northwest



Excavation of Contaminated Material During
Remedial Action, Looking North



Property After Remedial Action, Looking Northwest



Excavation of Contaminated Material During
Remedial Action, Looking North



Property After Remedial Action, Looking Northwest



Excavation of Contaminated Material During
Remedial Action, Looking North



Property After Remedial Action, Looking Northwest

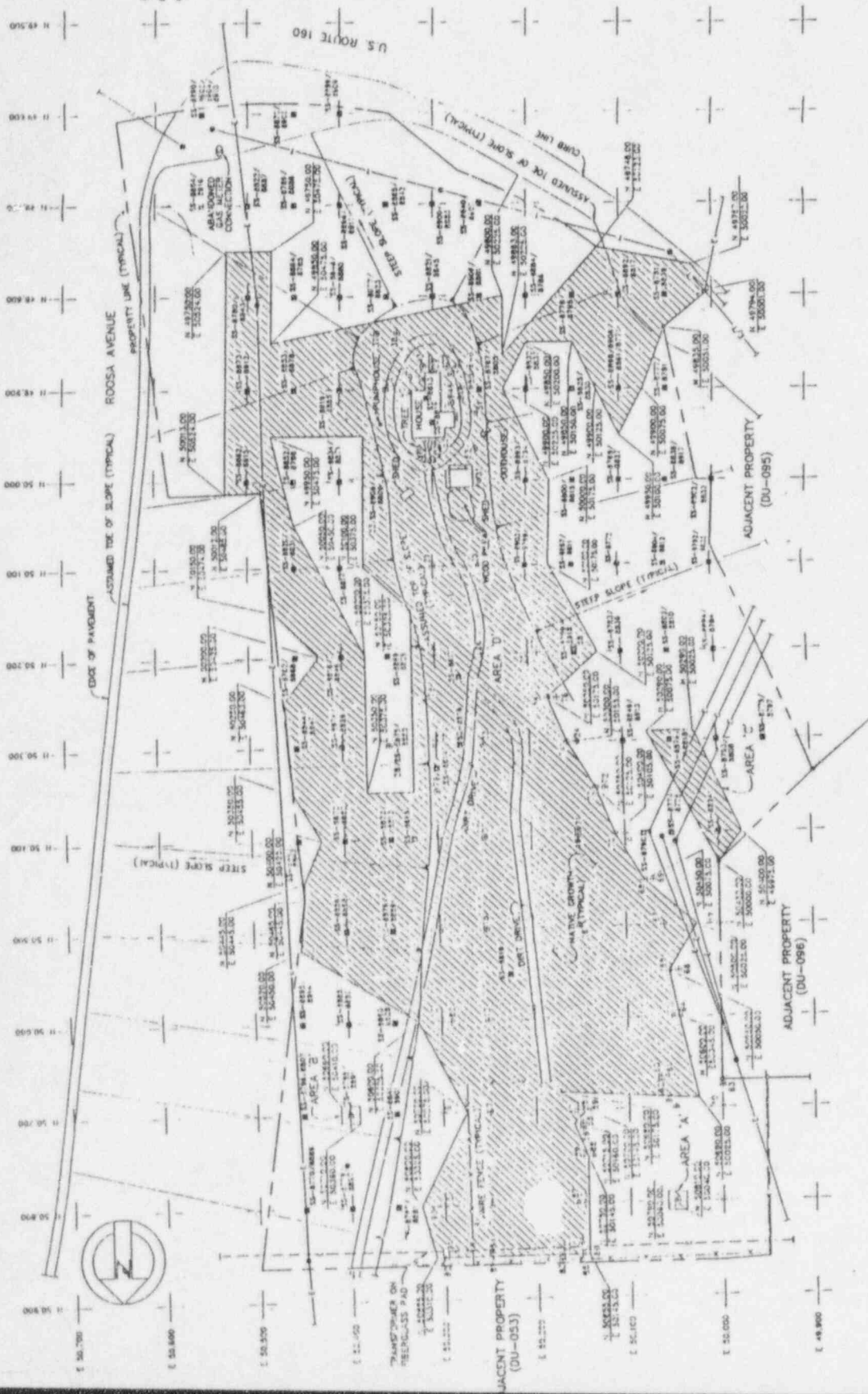
LEGEND

- BORERHOLE DESIGNATION
- SOIL SAMPLE DESIGNATION
- BORERHOLE/SOIL SAMPLE DESIGNATION
- ESTIMATED DEPTH OF CONTAMINATION



NOTE: NORTHWEST CORNER OF HOUSE IS LOCATED AT N 48953.00 E 5032.85
SOUTHEAST CORNER OF HOUSE IS LOCATED AT N 48953.00 E 5032.85

| | |
|----------------------------|------------------|
| U. S. DEPARTMENT OF ENERGY | |
| ALBUQUERQUE, NEW MEXICO | |
| RADIOLOGICAL SURVEY DATA | |
| DU-059 | |
| PROJECT NO. | NR |
| DATE | 10/1/83 |
| BY | MR. J. L. GARCIA |
| CHECKED BY | MR. J. L. GARCIA |
| APPROVED BY | MR. J. L. GARCIA |
| PROJECT NO. | NR |
| DATE | 10/1/83 |
| BY | MR. J. L. GARCIA |
| CHECKED BY | MR. J. L. GARCIA |
| APPROVED BY | MR. J. L. GARCIA |



| | |
|-------------|------------------|
| PROJECT NO. | NR |
| DATE | 10/1/83 |
| BY | MR. J. L. GARCIA |
| CHECKED BY | MR. J. L. GARCIA |
| APPROVED BY | MR. J. L. GARCIA |
| PROJECT NO. | NR |
| DATE | 10/1/83 |
| BY | MR. J. L. GARCIA |
| CHECKED BY | MR. J. L. GARCIA |
| APPROVED BY | MR. J. L. GARCIA |

DE-AC04-83AJ18796
DU-059-015

LEGEND

| | |
|-----------|---|
| WATER | — |
| GAS LINE | — |
| SEWER | — |
| STORM | — |
| ELECTRIC | — |
| TELEPHONE | — |
| CABLE | — |
| PROPERTY | — |
| FENCE | — |
| METER | — |
| VALVE | — |
| POPE | — |
| PUMP | — |

OVERHEAD SERVICE INDICATED BY SYMBOL
UNDERGROUND SERVICE INDICATED BY

NOTES:

1. THE LATEST REVISION OF THE TECHNICAL SPECIFICATIONS AND STANDARD ACTION MARKS SHOULD BE USED FOR ALL WORK.
2. SECTION 01110 CLEANING AND GRUBBING
3. SECTION 01120 EXCAVATION AND BACKFILL
4. SECTION 01130 EXCAVATION AND BACKFILL
5. THE EXCAVATION LIMITS AND BACKFILL ARE FOR THE ACTUAL LOCATION OF THE EXCAVATION. THE ACTUAL LOCATION OF THE EXCAVATION SHOULD BE INDICATED BY THE EXCAVATION CONTRACTOR.
6. THE EXCAVATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND STRUCTURES IN THE EXCAVATION AREA.
7. THE EXCAVATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND STRUCTURES IN THE EXCAVATION AREA.
8. THE EXCAVATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND STRUCTURES IN THE EXCAVATION AREA.
9. THE EXCAVATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND STRUCTURES IN THE EXCAVATION AREA.
10. THE EXCAVATION CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL UTILITIES AND STRUCTURES IN THE EXCAVATION AREA.

NOTE: NORTHEAST CORNER OF ABANDONED FOUNDATION IS LOCATED AT N 4950.12, E 5032.75.
SOUTHEAST CORNER OF ABANDONED FOUNDATION IS LOCATED AT N 4950.12, E 5032.75.



U. S. DEPARTMENT OF ENERGY
ALBUQUERQUE, NEW MEXICO

EXCAVATION AND RESTORATION
DU-059

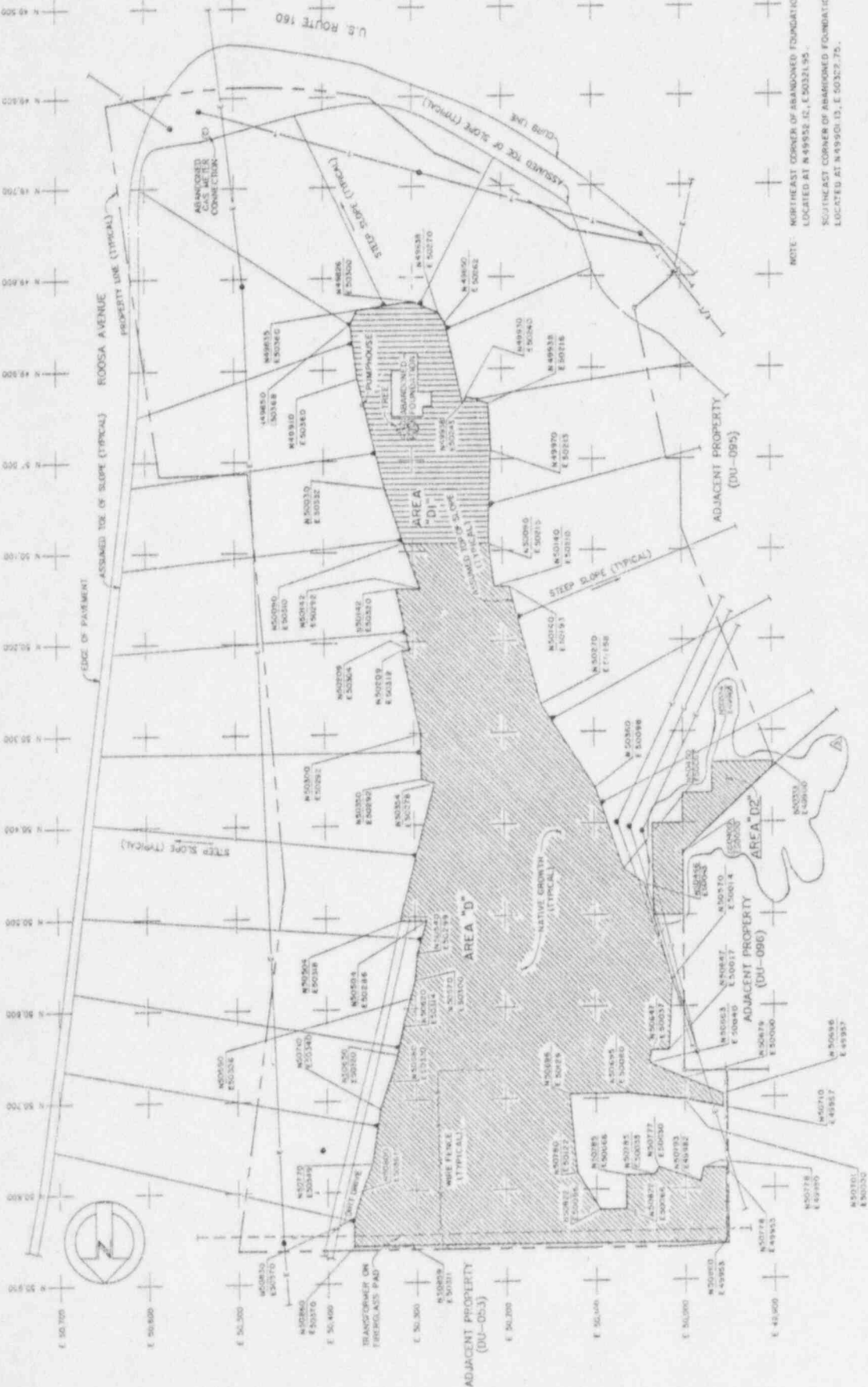
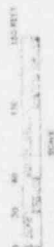
URANUM MILL TAILINGS REMEDIAL ACTION PROJECT
URANUM MILL TAILINGS REMEDIAL ACTION PROJECT
URANUM MILL TAILINGS REMEDIAL ACTION PROJECT

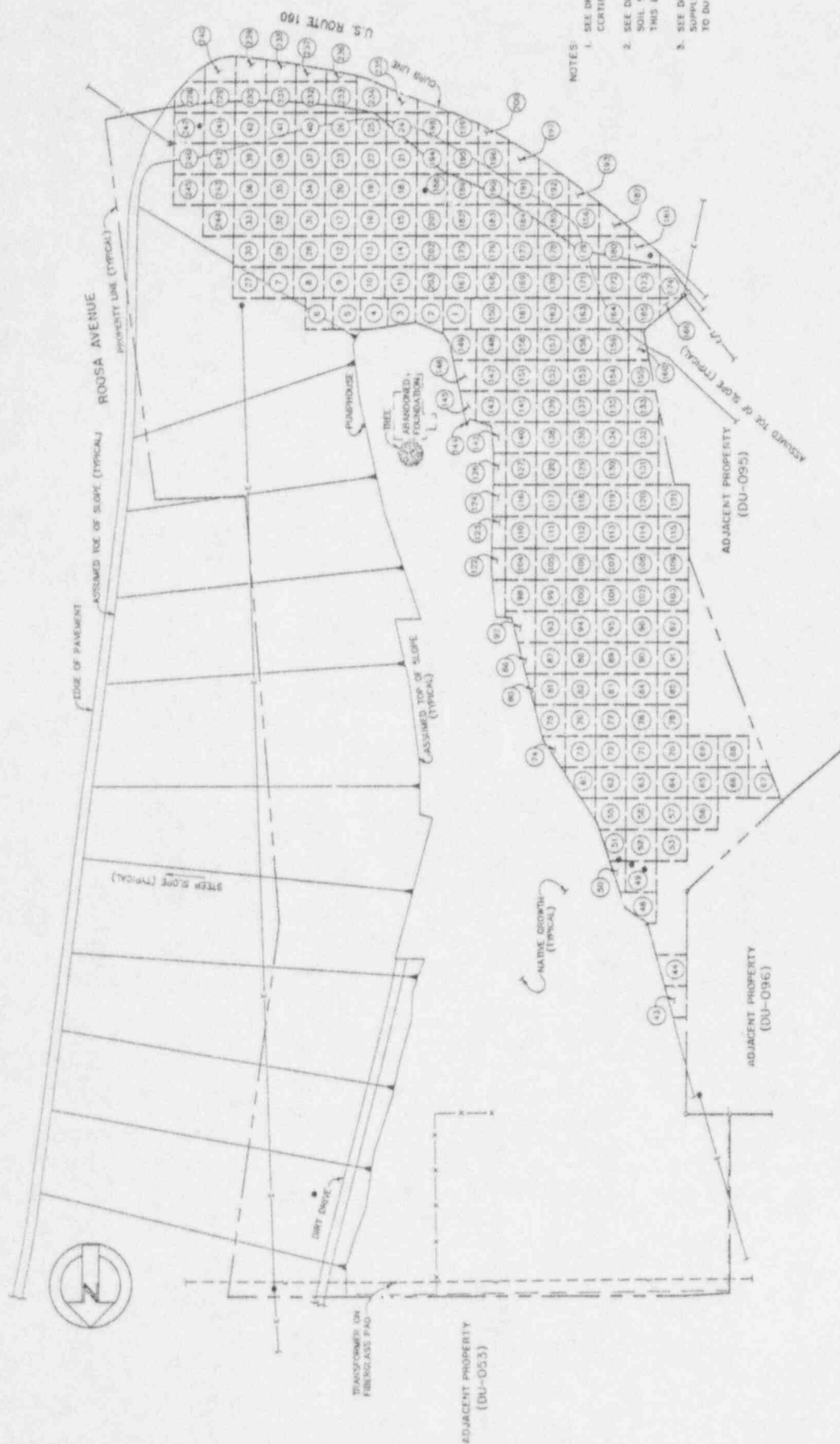
DE-ACD
DRAWING NO DU-059

MARK-FERGUSON
A Subsidiary of MCDERMOTT INTERNATIONAL

AS-BUILT DRAWING

| NO. | DATE | BY | CHK | APP | REV | DESCRIPTION |
|-----|---------|----|-----|-----|-----|---------------------------|
| 1 | 10/1/88 | PH | PH | PH | PH | REVISED EXCAVATION LIMITS |
| 2 | 10/1/88 | PH | PH | PH | PH | AS-BUILT DRAWING |
| 3 | 10/1/88 | PH | PH | PH | PH | REVISED NOTES |
| 4 | 10/1/88 | PH | PH | PH | PH | ISSUED FOR CONSTRUCTION |





- NOTES:

SEE DRAWING DU-059-030 FOR REMAINING
CERTIFICATION RADIOLOGICAL PLAN.

SEE DRAWING DU-059-033 FOR VERIFICATION
SOIL SAMPLE NUMBERS PERTAINING TO
THIS DRAWING.

3. SEE DRAWING DU-059-034 FOR SUPPLEMENTAL STANDARDS PERTAINING TO DU-059.

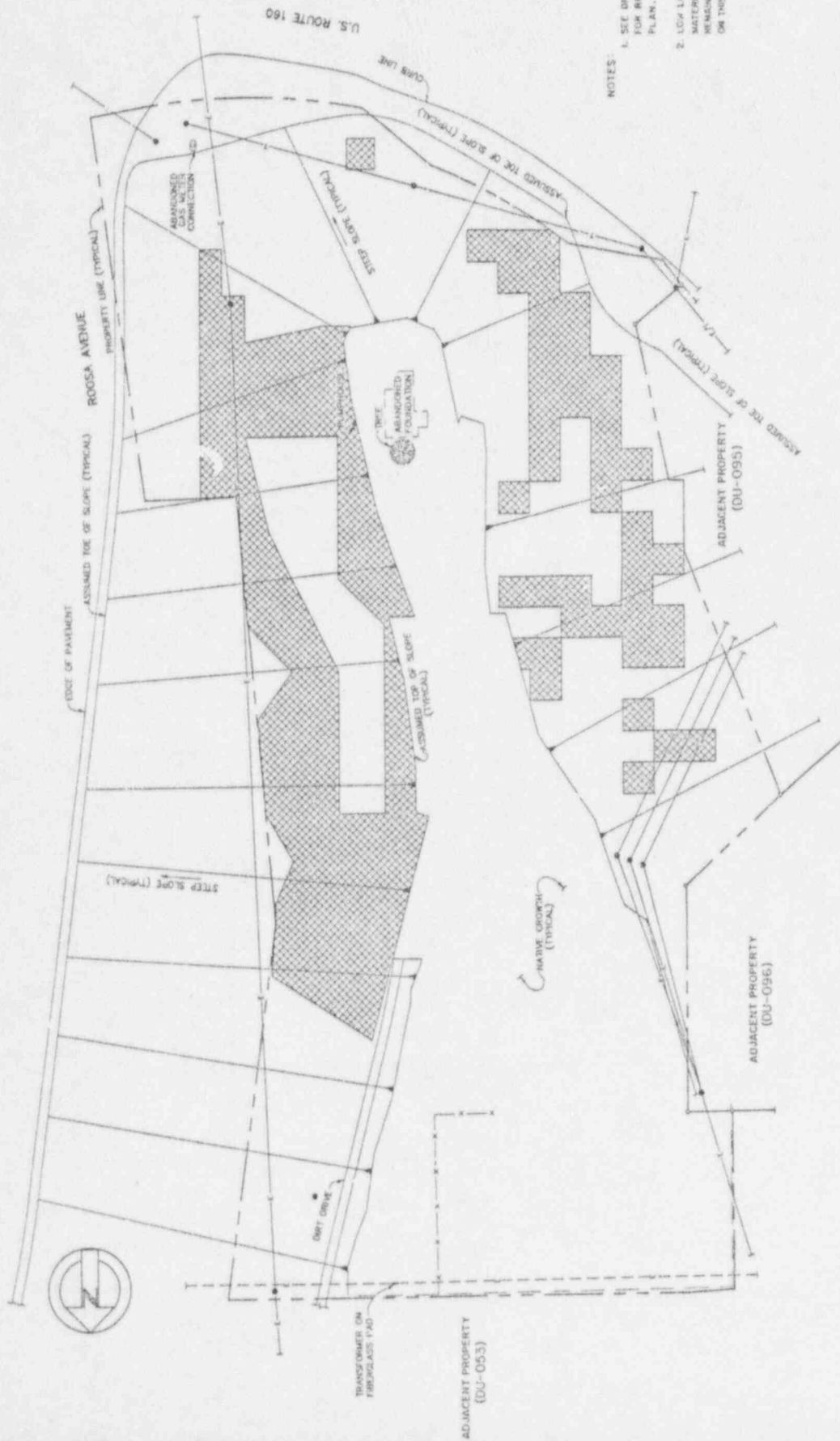
982702

ENERGY

| | | | | | |
|-----------------------------------|--|---------------------------|--|---------------------|--|
| U.S. DEPARTMENT OF ENERGY | | | | | |
| ALBUQUERQUE, NEW MEXICO | | | | | |
| VERIFICATION SOIL SAMPLE NUMBER | | | | | |
| DU-059 | | | | | |
| CONTAINER NO. | | DATE | | | |
| CONTENTS | | ANALYSTS | | | |
| EQUIPMENT | | METHODS | | | |
| APPROVED | | NR | | | |
| NR | | DATE FOR PRODUCT ANALYSIS | | INSTRUC. CONTROLLED | |
| PROJECT NO. | | NR | | | |
| MK-FERGUSON A FERGUSON COMPANY | | | | | |
| DE - AC04 - 83AI | | | | | |
| PAYMENT NO DU-059-03 | | | | | |

VERIFICATION SOIL SAMPLE

| LOCATION | SOIL SAMPLE NUMBER | LOCATION | SOIL SAMPLE NUMBER | LOCATION | SOIL SAMPLE NUMBER | LOCATION | SOIL SAMPLE NUMBER |
|----------|--------------------|----------|--------------------|----------|--------------------|----------|--------------------|
| 1. | DU-05-12405 | 74. | DU-05-12557 | 134. | DU-05-12794 | 190. | DU-05-12734 |
| 2. | DU-05-12406 | 75. | DU-05-12558 | 135. | DU-05-12795 | 191. | DU-05-12735 |
| 3. | DU-05-12407 | 76. | DU-05-12559 | 136. | DU-05-12796 | 192. | DU-05-12736 |
| 4. | DU-05-12408 | 77. | DU-05-12560 | 137. | DU-05-12797 | 193. | DU-05-12737 |
| 5. | DU-05-12409 | 78. | DU-05-12561 | 138. | DU-05-12798 | 194. | DU-05-12738 |
| 6. | DU-05-12410 | 79. | DU-05-12562 | 139. | DU-05-12799 | 195. | DU-05-12739 |
| 7. | DU-05-12411 | 80. | DU-05-12563 | 140. | DU-05-12800 | 196. | DU-05-12740 |
| 8. | DU-05-12412 | 81. | DU-05-12564 | 141. | DU-05-12801 | 197. | DU-05-12741 |
| 9. | DU-05-12413 | 82. | DU-05-12565 | 142. | DU-05-12802 | 198. | DU-05-12742 |
| 10. | DU-05-12414 | 83. | DU-05-12566 | 143. | DU-05-12803 | 199. | DU-05-12743 |
| 11. | DU-05-12415 | 84. | DU-05-12567 | 144. | DU-05-12804 | 200. | DU-05-12744 |
| 12. | DU-05-12416 | 85. | DU-05-12568 | 145. | DU-05-12805 | 201. | DU-05-12745 |
| 13. | DU-05-12417 | 86. | DU-05-12569 | 146. | DU-05-12806 | 202. | DU-05-12746 |
| 14. | DU-05-12418 | 87. | DU-05-12570 | 147. | DU-05-12807 | 203. | DU-05-12747 |
| 15. | DU-05-12419 | 88. | DU-05-12571 | 148. | DU-05-12808 | 204. | DU-05-12748 |
| 16. | DU-05-12420 | 89. | DU-05-12572 | 149. | DU-05-12809 | 205. | DU-05-12749 |
| 17. | DU-05-12421 | 90. | DU-05-12573 | 150. | DU-05-12810 | 206. | DU-05-12750 |
| 18. | DU-05-12422 | 91. | DU-05-12574 | 151. | DU-05-12811 | 207. | DU-05-12751 |
| 19. | DU-05-12423 | 92. | DU-05-12575 | 152. | DU-05-12812 | 208. | DU-05-12752 |
| 20. | DU-05-12424 | 93. | DU-05-12576 | 153. | DU-05-12813 | 209. | DU-05-12753 |
| 21. | DU-05-12425 | 94. | DU-05-12577 | 154. | DU-05-12814 | 210. | DU-05-12754 |
| 22. | DU-05-12426 | 95. | DU-05-12578 | 155. | DU-05-12815 | 211. | DU-05-12755 |
| 23. | DU-05-12427 | 96. | DU-05-12579 | 156. | DU-05-12816 | 212. | DU-05-12756 |
| 24. | DU-05-12428 | 97. | DU-05-12580 | 157. | DU-05-12817 | 213. | DU-05-12757 |
| 25. | DU-05-12429 | 98. | DU-05-12581 | 158. | DU-05-12818 | 214. | DU-05-12758 |
| 26. | DU-05-12430 | 99. | DU-05-12582 | 159. | DU-05-12819 | 215. | DU-05-12759 |
| 27. | DU-05-12431 | 100. | DU-05-12583 | 160. | DU-05-12820 | 216. | DU-05-12760 |
| 28. | DU-05-12432 | 101. | DU-05-12584 | 161. | DU-05-12821 | 217. | DU-05-12761 |
| 29. | DU-05-12433 | 102. | DU-05-12585 | 162. | DU-05-12822 | 218. | DU-05-12762 |
| 30. | DU-05-12434 | 103. | DU-05-12586 | 163. | DU-05-12823 | 219. | DU-05-12763 |
| 31. | DU-05-12435 | 104. | DU-05-12587 | 164. | DU-05-12824 | 220. | DU-05-12764 |
| 32. | DU-05-12436 | 105. | DU-05-12588 | 165. | DU-05-12825 | 221. | DU-05-12765 |
| 33. | DU-05-12437 | 106. | DU-05-12589 | 166. | DU-05-12826 | 222. | DU-05-12766 |
| 34. | DU-05-12438 | 107. | DU-05-12590 | 167. | DU-05-12827 | 223. | DU-05-12767 |
| 35. | DU-05-12439 | 108. | DU-05-12591 | 168. | DU-05-12828 | 224. | DU-05-12768 |
| 36. | DU-05-12440 | 109. | DU-05-12592 | 169. | DU-05-12829 | 225. | DU-05-12769 |
| 37. | DU-05-12441 | 110. | DU-05-12593 | 170. | DU-05-12830 | 226. | DU-05-12770 |
| 38. | DU-05-12442 | 111. | DU-05-12594 | 171. | DU-05-12831 | 227. | DU-05-12771 |
| 39. | DU-05-12443 | 112. | DU-05-12595 | 172. | DU-05-12832 | 228. | DU-05-12772 |
| 40. | DU-05-12444 | 113. | DU-05-12596 | 173. | DU-05-12833 | 229. | DU-05-12773 |
| 41. | DU-05-12445 | | | 174. | DU-05-12834 | 230. | DU-05-12774 |
| 42. | DU-05-12446 | | | 175. | DU-05-12835 | 231. | DU-05-12775 |
| 43. | DU-05-12447 | | | 176. | DU-05-12836 | 232. | DU-05-12776 |
| 44. | DU-05-12448 | | | 177. | DU-05-12837 | 233. | DU-05-12777 |
| 45. | DU-05-12449 | | | 178. | DU-05-12838 | 234. | DU-05-12778 |
| 46. | DU-05-12450 | | | 179. | DU-05-12839 | 235. | DU-05-12779 |
| 47. | DU-05-12451 | | | 180. | DU-05-12840 | 236. | DU-05-12780 |
| 48. | DU-05-12452 | | | 181. | DU-05-12841 | 237. | DU-05-12781 |
| 49. | DU-05-12453 | | | 182. | DU-05-12842 | 238. | DU-05-12782 |
| 50. | DU-05-12454 | | | 183. | DU-05-12843 | 239. | DU-05-12783 |
| 51. | DU-05-12455 | | | 184. | DU-05-12844 | 240. | DU-05-12784 |
| 52. | DU-05-12456 | | | 185. | DU-05-12845 | 241. | DU-05-12785 |
| 53. | DU-05-12457 | | | 186. | DU-05-12846 | 242. | DU-05-12786 |
| 54. | DU-05-12458 | | | 187. | DU-05-12847 | 243. | DU-05-12787 |
| 55. | DU-05-12459 | | | 188. | DU-05-12848 | 244. | DU-05-12788 |
| 56. | DU-05-12460 | | | 189. | DU-05-12849 | 245. | DU-05-12789 |
| 57. | DU-05-12461 | | | 190. | DU-05-12850 | 246. | DU-05-12790 |
| 58. | DU-05-12462 | | | 191. | DU-05-12851 | 247. | DU-05-12791 |
| 59. | DU-05-12463 | | | 192. | DU-05-12852 | 248. | DU-05-12792 |
| 60. | DU-05-12464 | | | 193. | DU-05-12853 | 249. | DU-05-12793 |
| 61. | DU-05-12465 | | | 194. | DU-05-12854 | 250. | DU-05-12794 |
| 62. | DU-05-12466 | | | 195. | DU-05-12855 | 251. | DU-05-12795 |
| 63. | DU-05-12467 | | | 196. | DU-05-12856 | 252. | DU-05-12796 |
| 64. | DU-05-12468 | | | 197. | DU-05-12857 | 253. | DU-05-12797 |
| 65. | DU-05-12469 | | | 198. | DU-05-12858 | 254. | DU-05-12798 |
| 66. | DU-05-12470 | | | 199. | DU-05-12859 | 255. | DU-05-12799 |
| 67. | DU-05-12471 | | | 200. | DU-05-12860 | 256. | DU-05-12800 |
| 68. | DU-05-12472 | | | 201. | DU-05-12861 | 257. | DU-05-12801 |
| 69. | DU-05-12473 | | | 202. | DU-05-12862 | 258. | DU-05-12802 |
| 70. | DU-05-12474 | | | 203. | DU-05-12863 | 259. | DU-05-12803 |
| 71. | DU-05-12475 | | | 204. | DU-05-12864 | 260. | DU-05-12804 |
| 72. | DU-05-12476 | | | 205. | DU-05-12865 | 261. | DU-05-12805 |
| 73. | DU-05-12477 | | | 206. | DU-05-12866 | 262. | DU-05-12806 |
| 74. | DU-05-12478 | | | 207. | DU-05-12867 | 263. | DU-05-12807 |
| 75. | DU-05-12479 | | | 208. | DU-05-12868 | 264. | DU-05-12808 |
| 76. | DU-05-12480 | | | 209. | DU-05-12869 | 265. | DU-05-12809 |
| 77. | DU-05-12481 | | | 210. | DU-05-12870 | 266. | DU-05-12810 |
| 78. | DU-05-12482 | | | 211. | DU-05-12871 | 267. | DU-05-12811 |
| 79. | DU-05-12483 | | | 212. | DU-05-12872 | 268. | DU-05-12812 |
| 80. | DU-05-12484 | | | 213. | DU-05-12873 | 269. | DU-05-12813 |
| 81. | DU-05-12485 | | | 214. | DU-05-12874 | 270. | DU-05-12814 |
| 82. | DU-05-12486 | | | 215. | DU-05-12875 | 271. | DU-05-12815 |
| 83. | DU-05-12487 | | | 216. | DU-05-12876 | 272. | DU-05-12816 |
| 84. | DU-05-12488 | | | 217. | DU-05-12877 | 273. | DU-05-12817 |
| 85. | DU-05-12489 | | | 218. | DU-05-12878 | 274. | DU-05-12818 |
| 86. | DU-05-12490 | | | 219. | DU-05-12879 | 275. | DU-05-12819 |
| 87. | DU-05-12491 | | | 220. | DU-05-12880 | 276. | DU-05-12820 |
| 88. | DU-05-12492 | | | 221. | DU-05-12881 | 277. | DU-05-12821 |
| 89. | DU-05-12493 | | | 222. | DU-05-12882 | 278. | DU-05-12822 |
| 90. | DU-05-12494 | | | 223. | DU-05-12883 | 279. | DU-05-12823 |
| 91. | DU-05-12495 | | | 224. | DU-05-12884 | 280. | DU-05-12824 |
| 92. | DU-05-12496 | | | 225. | DU-05-12885 | 281. | DU-05-12825 |
| 93. | DU-05-12497 | | | 226. | DU-05-12886 | 282. | DU-05-12826 |
| 94. | DU-05-12498 | | | 227. | DU-05-12887 | 283. | DU-05-12827 |
| 95. | DU-05-12499 | | | 228. | DU-05-12888 | 284. | DU-05-12828 |
| 96. | DU-05-12500 | | | 229. | DU-05-12889 | 285. | DU-05-12829 |
| 97. | DU-05-12501 | | | 230. | DU-05-12890 | 286. | DU-05-12830 |
| 98. | DU-05-12502 | | | 231. | DU-05-12891 | 287. | DU-05-12831 |
| 99. | DU-05-12503 | | | 232. | DU-05-12892 | 288. | DU-05-12832 |
| 100. | DU-05-12504 | | | 233. | DU-05-12893 | 289. | DU-05-12833 |
| 101. | DU-05-12505 | | | 234. | DU-05-12894 | 290. | DU-05-12834 |
| 102. | DU-05-12506 | | | 235. | DU-05-12895 | 291. | DU-05-12835 |
| 103. | DU-05-12507 | | | 236. | DU-05-12896 | 292. | DU-05-12836 |
| 104. | DU-05-12508 | | | 237. | DU-05-12897 | 293. | DU-05-12837 |
| 105. | DU-05-12509 | | | 238. | DU-05-12898 | 294. | DU-05-12838 |
| 106. | DU-05-12510 | | | 239. | DU-05-12899 | 295. | DU-05-12839 |
| 107. | DU-05-12511 | | | 240. | DU-05-12900 | 296. | DU-05-12840 |
| 108. | DU-05-12512 | | | 241. | DU-05-12901 | 297. | DU-05-12841 |
| 109. | DU-05-12513 | | | 242. | DU-05-12902 | 298. | DU-05-12842 |
| 110. | DU-05-12514 | | | 243. | DU-05-12903 | 299. | DU-05-12843 |
| 111. | DU-05-12515 | | | 244. | DU-05-12904 | 300. | DU-05-12844 |
| 112. | DU-05-12516 | | | 245. | DU-05-12905 | 301. | DU-05-12845 |
| 113. | DU-05-12517 | | | 246. | DU-05-12906 | 302. | DU-05-12846 |
| 114. | DU-05-12518 | | | 247. | DU-05-12907 | 303. | DU-05-12847 |
| 115. | DU-05-12519 | | | 248. | DU-05-12908 | 304. | DU-05-12848 |
| 116. | DU-05-12520 | | | 249. | DU-05-12909 | 305. | DU-05-12849 |
| 117. | DU-05-12521 | | | 250. | DU-05-12910 | 306. | DU-05-12850 |
| 118. | DU-05-12522 | | | 251. | DU-05-12911 | 307. | DU-05-12851 |
| 119. | DU-05-12523 | | | 252. | DU-05-12912 | 308. | DU-05-12852 |
| 120. | DU-05-12524 | | | 253. | DU-05-12913 | 309. | DU-05-12853 |
| 121. | DU-05-12525 | | | 254. | DU-05-12914 | 310. | DU-05-12854 |
| 122. | DU-05-12526 | | | 255. | DU-05-12915 | 311. | DU-05-12855 |
| 123. | DU-05-12527 | | | 256. | DU-05-12916 | 312. | DU-05-12856 |
| 124. | DU-05-12528 | | | 257. | DU-05-12917 | 313. | DU-05-12857 |
| 125. | DU-05-12529 | | | 258. | DU-05-12918 | 314. | DU-05-12858 |
| 126. | DU-05-12530 | | | 259. | DU-05-12919 | 315. | DU-05-12859 |
| 127. | DU-05-12531 | | | 260. | DU-05-12920 | 316. | DU-05-12860 |
| 128. | DU-05-12532 | | | 261. | DU-05-12921 | 317. | DU-05-12861 |
| 129. | DU-05-12533 | | | 262. | DU-05-12922 | 318. | DU-05-12862 |
| 130. | DU-05-12534 | | | 263. | DU-05-12923 | 319. | DU-05-12863 |
| 131. | DU-05-12535 | | | 264. | DU-05-12924 | 320. | DU-05-12864 |
| 132. | DU-05-12536 | | | 265. | DU-05-12925 | 321. | DU-05-12865 |
| 133. | DU-05-12537 | | | 266. | DU-05-12926 | 322. | DU-05-12866 |
| 134. | DU-05-12538 | | | 267. | DU-05-12927 | 323. | DU-05-12867 |
| 135. | DU-05-12539 | | | 268. | DU-05-12928 | 324. | DU-05-12868 |
| 136. | DU-05-12540 | | | 269. | DU-05-12929 | 325. | DU-05-12869 |
| 137. | DU-05-12541 | | | 270. | DU-05-12930 | 326. | DU-05-12870 |
| 138. | DU-05-12542 | | | 271. | DU-05-12931 | 327. | DU-05-12871 |
| 139. | DU-05-12543 | | | 272. | DU-05-12932 | 328. | DU-05-12872 |
| 140. | DU-05-12544 | | | 273. | DU-05-12933 | 329. | DU-05-12873 |
| 141. | DU-05-12545 | | | 274. | DU-05-12934 | 330. | DU-05-12874 |
| 142. | DU-05-12546 | | | 275. | DU-05-12935 | 331. | DU-05-12875 |
| 143. | DU-05-12547 | | | 276. | DU-05-12936 | 332. | DU-05-12876 |
| 144. | DU-05-12548 | | | 277. | DU-05-12937 | | |



CONTAMINATED MATERIAL
(SEE NOTE 2)

NOTES:
1. SEE DRAWING DU-055-050 AND DU-055-051 FOR REMAINING CERTIFICATION RADIOLOGICAL PLAN.
2. LOW LEVEL RADIOACTIVELY CONTAMINATED MATERIAL IN EXCESS OF EPA STANDARDS REMAINS IN PLACE IN THE LOCATIONS INDICATED ON THIS DRAWING.

| | | | |
|---|----|-------------|----|
| U. S. DEPARTMENT OF ENERGY ALBUQUERQUE, N. M. | | DU-059 | |
| CERTIFICATION RADIOLOGICAL PLAN SUPPLEMENTAL STANDARDS | | DU-059 | |
| DESIGNED BY | MT | PROJECT NO. | NR |
| CHECKED BY | NR | DATE | NR |
| APPROVED BY | NR | PROJECT NO. | NR |
| U. S. DEPARTMENT OF ENERGY ALBUQUERQUE, N. M. | | DU-059 | |
| CERTIFICATION RADIOLOGICAL PLAN SUPPLEMENTAL STANDARDS | | DU-059 | |
| U. S. DEPARTMENT OF ENERGY ALBUQUERQUE, N. M. | | DU-059 | |
| CERTIFICATION RADIOLOGICAL PLAN SUPPLEMENTAL STANDARDS | | DU-059 | |
| U. S. DEPARTMENT OF ENERGY ALBUQUERQUE, N. M. | | DU-059 | |
| CERTIFICATION RADIOLOGICAL PLAN SUPPLEMENTAL STANDARDS | | DU-059 | |

| REV | DATE | BY | CHKD | APPD | REVISIONS |
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APPENDIX A
RADIOLOGICAL SURVEY DATA

SOIL VERIFICATION DATA

| | Coordinates | Sample # | Approx. Depth | Ra-226 (pCi/g) Concentration | | Comments |
|----|--|------------|------------------|---------------------------------|-------|--|
| | | | | Initial | Final | |
| 1 | N 50860 N 50860 E 49950 N 49970 N 50840 N 50840 E 49970 N 49950 | D-SV-10439 | 6" | 2.45 | 3.97 | |
| 2 | N 50860 N 50860 E 49970 E 50000 N 50840 N 50840 E 50000 E 49970 | D-SV-10440 | 6" | ¹ < MDA | 2.04 | |
| 3 | N 50860 N 50860 E 50000 E 50030 N 50840 N 50840 E 50030 E 50000 | D-SV-10441 | 6" | ¹ < MDA | 1.58 | |
| 4 | N 50860 N 50860 E 50030 E 50060 N 50840 N 50840 E 50060 E 50030 | D-SV-10442 | 6" | ¹ < MDA | 3.07 | QC RESULTS Ra-226 Th-230 3.6±0.9 2.6±0.7 |
| 5 | N 50860 N 50860 E 50060 E 50090 N 50840 N 50840 E 50090 E 50060 | D-SV-10443 | 6" | 1.65 | 3.75 | |
| 6 | N 50860 N 50860 E 50090 E 50120 N 50840 N 50840 E 50120 E 50090 | D-SV-10444 | 6" | 1.37 | 2.46 | |
| 7 | N 50860 N 50860 E 50120 E 50150 N 50840 N 50840 E 50150 E 50120 | D-SV-10445 | 6" | 1.22 | 1.56 | |
| 8 | N 50860 N 50860 E 50150 E 50180 N 50840 N 50840 E 50180 E 50150 | D-SV-10446 | 6" | ¹ < MDA | 1.55 | |
| 9 | N 50860 N 50860 E 50180 E 50210 N 50840 N 50840 E 50210 E 50180 | D-SV-10447 | 6" | ¹ < MDA | 1.71 | |
| 10 | N 50860 N 50860 E 50210 E 50240 N 50840 N 50840 E 50240 E 50210 | D-SV-10448 | 6" | ¹ < MDA | 2.47 | FOR ALL SAMPLES: 1-MDA 1.20 OCS 2-MDA 1.15 OCS |

SOIL VERIFICATION DATA

| Grid | Coordinates | Sample # | Approx. Depth | Ra-226 (pCi/g) Concentration | | Comments |
|------|--|--------------------------|------------------|---------------------------------|--------------|-----------|
| | | | | Initial | Final | |
| 11 | N 50860 N 50860 E 50240 E 50270 N 50840 N 50840 E 50270 E 50240 | D-SV-10449 | 6" | 2.28 | 3.36 | |
| 12 | N 50860 N 50860 E 50270 E 50300 N 50840 N 50840 E 50300 E 50220 | D-SV-10450 | 6" | 1.45 | 2.82 | |
| 13 | N 50860 N 50859 E 50300 E 50311 N 50810 N 50810 E 50312 E 50300 | D-SV-10451 | 6" | 2.56 | 4.59 | |
| 14 | N 50825 ** E 50285 | D-SV-10452 | 6" | 1 < MDA | 1.58 | |
| 15 | N 50825 ** E 50255 | D-SV-10453 | 6" | 1.66 | 3.05 | |
| 16 | N 50825 ** E 50225 | D-SV-10454 | 6" | 2.40 | 2.59 | |
| 17 | N 50825 ** E 50195 | D-SV-10455 | 6" | 1.49 | 2.64 | |
| 18 | N 50825 ** E 50165 | D-SV-10456 | 6" | 1.29 | 1.96 | |
| 19 | N 50825 ** E 50135 | D-SV-10457 | 6" | 1.55 | 2.39 | |
| 20 | N 50840 N 50840 E 50090 E 50120 N 50810 N 50810 E 50120 E 50104 N 50822 N 50822 E 50096 E 50090 | D-SV-10458 D-SV-10459 | 6" 6" | 1.71 1.44 | 3.13 3.35 | duplicate |
| 21 | N 50840 N 50840 E 50060 E 50090 N 50822 N 50822 E 50090 E 50066 N 50810 N 50810 E 50066 E 50060 | D-SV-10460 | 6" | 1.72 | 3.02 | |
| ** | Single coordinate indicates the center of a 30' x 30' grid. | | | | | |

SOIL VERIFICATION DATA

| | Coordinates | Sample # | Approx. Depth | Ra-226 (pCi/g) Concentration | | Comments |
|----|--|------------|------------------|---------------------------------|-------|--|
| | | | | Initial | Final | |
| 22 | N 50825 ** E 50045 | D-SV-10461 | 6" | 1.20 | 1.59 | |
| 23 | N 50825 ** E 50015 | D-SV-10462 | 6" | ¹ <MDA | 1.53 | Q.C. RESULTS Ra-226 Th-230 1.1±0.5 1.5±0.6 |
| 24 | N 50825 ** E 49985 | D-SV-10463 | 6" | ¹ <MDA | 1.94 | |
| 25 | N 50840 N 50840 E 49950 E 49970 N 50810 N 50810 E 49970 E 49951 | D-SV-10464 | 6" | 1.17 | 2.24 | |
| 26 | N 50810 N 50810 E 49951 E 49970 N 50778 N 50778 E 49970 E 49953 | D-SV-10465 | 6" | 3.44 | 6.25 | |
| 27 | N 50810 N 50810 E 49970 E 50000 N 50787 N 50793 E 50000 E 49982 N 50778 N 50778 E 49980 E 49970 | D-SV-10466 | 6" | 1.30 | 3.81 | |
| 28 | N 50810 N 50810 E 50000 E 50030 N 50777 N 50787 E 50030 E 50000 | D-SV-10467 | 6" | ² <MDA | 1.91 | |
| 29 | N 50810 N 50810 E 50030 E 50060 N 50785 N 50785 E 50060 E 50033 N 50777 E 50030 | D-SV-10468 | 6" | 2.57 | 4.78 | |
| 30 | N 50810 N 50810 E 50060 E 50066 N 50785 N 50785 E 50066 E 50060 N 50810 N 50810 E 50104 E 50120 N 50781 E 50120 | D-SV-10469 | 6" | 1.76 | 3.22 | |
| | | D-SV-10470 | 6" | 1.36 | 3.33 | |

SOIL VERIFICATION DATA

| id | Coordinates | | Sample # | Approx. Depth | Ra-226 (pCi/g) Concentration | | Comments |
|----|--|--|--------------------------|------------------|---------------------------------|--------------|--|
| | | | | | Initial | Final | |
| 32 | N 50810 E 50120 N 50780 E 50150 N 50781 E 50120 | N 50810 E 50150 N 50780 E 50122 | D-SV-10471 | 6" | 1 < MDA | 1.86 | |
| 33 | N 50795 E 50165 | ** | D-SV-10472 | 6" | 1 < MDA | 2.42 | |
| 34 | N 50795 E 50195 | ** | D-SV-10473 | 6" | 1 < MDA | 2.63 | |
| 35 | N 50795 E 50225 | ** | D-SV-10474 | 6" | 1.87 | 3.50 | |
| 36 | N 50795 E 50255 | ** | D-SV-10475 | 6" | 1.66 | 1.93 | |
| 37 | N 50795 E 50285 | ** | D-SV-10476 | 6" | 1.72 | 2.08 | |
| 38 | N 50810 E 50300 N 50780 E 50313 | N 50810 E 50313 N 50780 E 50300 | D-SV-10477 | 6" | 2.02 | 3.90 | |
| 39 | N 50780 E 50300 N 50750 E 50314 | N 50780 E 50313 N 50750 E 50300 | D-SV-10483 | 6" | 1.34 | 3.26 | |
| 40 | N 50765 E 50285 | ** | D-SV-10484 D-SV-10485 | 6" 6" | 1 < MDA 1 < MDA | 1.44 1.96 | Duplicate |
| 41 | N 50765 E 50255 | ** | D-SV-10486 | 6" | 1 < MDA | 1.47 | |
| 42 | N 50765 E 50225 | ** | D-SV-10487 | 6" | 1 < MDA | 1.41 | Q.C. RESULTS Ra-226 Th-230 1.0±0.6 1.8±0.6 |
| 43 | N 50765 E 50195 | ** | D-SV-10488 | 6" | 1 < MDA | 1.82 | |
| 44 | N 50765 E 50165 | ** | D-SV-10489 | 6" | 1 < MDA | 1.87 | |
| 45 | N 50780 E 50122 N 50750 E 50150 | N 50780 E 50150 N 50750 E 50124 | D-SV-10490 | 6" | 2.00 | 5.46 | |

DU-059

SOIL VERIFICATION DATA

| Field # | Coordinates | Sample # | Approx. Depth | Ra-226 (pCi/g) Concentration | | Comments |
|---------|--|------------|---------------|---------------------------------|---------|----------|
| | | | | Initial | Final | |
| 46 | N 50750 N 50750 E 50124 E 50150 N 50720 N 50720 E 50150 E 50127 | D-SV-10491 | 6" | 1 < MDA | 2.80 | |
| 47 | N 50735 ** E 50165 | D-SV-10492 | 6" | 2.03 | 2.48 | |
| 48 | N 50735 ** E 50195 | D-SV-10493 | 6" | 1 < MDA | 1.65 | |
| 49 | N 50735 ** E 50225 | D-SV-10494 | 6" | 1 < MDA | 1 < MDA | |
| 50 | N 50735 ** E 50255 | D-SV-10495 | 6" | 1 < MDA | 1 < MDA | |
| 51 | N 50735 ** E 50285 | D-SV-10496 | 6" | 1 < MDA | 1.15 | |
| 52 | N 50750 N 50750 E 50300 E 50314 N 50660 N 50660 E 50302 E 50300 | D-SV-10497 | 6" | 2.82 | 5.29 | |
| 53 | N 50705 ** E 50285 | D-SV-10498 | 6" | 1.53 | 2.90 | |
| 54 | N 50705 ** E 50255 | D-SV-10499 | 6" | 1 < MDA | 1.75 | |
| 55 | N 50705 ** E 50225 | D-SV-10500 | 6" | 1.98 | 3.05 | |
| 56 | N 50705 ** E 50195 | D-SV-10501 | 6" | 2.64 | 4.83 | |
| 57 | N 50705 ** E 50165 | D-SV-10502 | 6" | 1 < MDA | 2.57 | |
| 58 | N 50720 N 50720 E 50127 E 50150 N 50690 N 50690 E 50150 E 50120 N 50696 N 50696 E 50120 E 50129 | D-SV-10503 | 6" | 1 < MDA | 3.37 | |
| 59 | N 50698 N 50695 E 50030 E 50060 N 50696 N 50690 N 50690 E 50120 E 50120 E 50030 | D-SV-10504 | 6" | 2.16 | 3.15 | |

SOIL VERIFICATION DATA

| i | Coordinates | | Sample # | Approx. Depth | Ra-226 (pCi/g) Concentration | | Comments |
|----|------------------|------------------|--------------------------|------------------|---------------------------------|-------------------|--------------------------------|
| | | | | | Initial | Final | |
| 60 | N50701 E50000 | N50698 E50030 | D-SV-10505 D-SV-10506 | 6" 6" | 1.75 2.29 | 2.70 2.12 | Duplicate |
| | N50690 E50030 | N50690 E50000 | | | | | |
| 61 | N50710 E49951 | N50701 E50000 | D-SV-10507 | 6" | 2.26 | 3.49 | QC-forwarded when available |
| | N50690 E50000 | N50690 E49970 | | | | | |
| | N50696 E49957 | | | | | | |
| 62 | N50690 E49970 | N50690 E50030 | D-SV-10508 | 6" | ¹ <MDA | 1.88 | |
| | N50667 E50030 | N50679 E50000 | | | | | |
| 63 | N50690 E50030 | N50690 E50060 | D-SV-10509 | 6" | 1.16 | 1.47 | |
| | N50660 E50060 | N50660 E50041 | | | | | |
| | N50663 E50040 | N50667 E50030 | | | | | |
| 64 | N50675 E50075 | ** | D-SV-10510 | 6" | ¹ <MDA | 1.49 | |
| 65 | N50675 E50105 | ** | D-SV-10511 | 6" | 1.43 | 1.82 | |
| 66 | N50675 E50135 | ** | D-SV-10512 | 6" | ¹ <MDA | ¹ <MDA | |
| 67 | N50675 E50165 | ** | D-SV-10513 | 6" | 1.27 | 2.92 | |
| 68 | N50675 E50195 | ** | D-SV-10514 | 6" | 3.34 | 4.45 | |
| 69 | N50675 E50225 | ** | D-SV-10515 | 6" | 2.72 | 3.18 | |
| 70 | N50675 E50255 | ** | D-SV-10516 | 6" | 1.61 | 1.38 | |
| 71 | N50675 E50285 | ** | D-SV-10517 | 6" | ¹ <MDA | 2.15 | |
| 72 | N50660 E50270 | N50660 E50302 | D-SV-10518 | 6" | ¹ <MDA | 2.42 | |
| | N50630 E50296 | N50630 E50270 | | | | | |

SOIL VERIFICATION DATA

| Coordinates | | | Sample # | Approx. Depth | Ra-226 (pCi/g) Concentration Initial - Final | | Comments |
|-------------|------------------|------------------|------------|------------------|--|---------|---|
| 73 | N50645 E50255 | ** | D-SV-10519 | 6" | 1 < MDA | 1.28 | |
| 74 | N50645 E50225 | ** | D-SV-10520 | 6" | 1 < MDA | 1.51 | |
| 75 | N50645 E50195 | ** | D-SV-10521 | 6" | 1.29 | 5.46 | |
| 76 | N50645 E50165 | ** | D-SV-10522 | 6" | 1 < MDA | 1.93 | |
| 77 | N50645 E50135 | ** | D-SV-10523 | 6" | 2 < MDA | 2.19 | |
| 78 | N50645 E50105 | ** | D-SV-10524 | 6" | 2 < MDA | 2.31 | |
| 79 | N50645 E50075 | ** | D-SV-10525 | 6" | 1.38 | 1.31 | |
| B0 | N50660 E50041 | N50660 E50060 | D-SV-10526 | 6" | 1.78 | 2.82 | QC Duplicate QC RESULTS Ra-226 Th-230 2.0±0.7 2.3±0.7 |
| | N50630 E50060 | N50630 E50030 | D-SV-10527 | 6" | 2 < MDA | 1.42 | |
| | N50647 E50030 | N50647 E50017 | | | | | |
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| B1 | N50647 E50017 | N50647 E50030 | D-SV-10528 | 6" | 2 < MDA | 2.10 | |
| | N50630 E50030 | N50630 E50016 | | | | | |
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| B2 | N50630 E50016 | N50630 E50030 | D-SV-10529 | 6" | 2 < MDA | 1.22 | |
| | N50600 E50030 | N50600 E50015 | | | | | |
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| B3 | N50615 E50045 | ** | D-SV-10539 | 6" | 2 < MDA | 1.17 | |
| B4 | N50615 E50075 | ** | D-SV-10540 | 6" | 2 < MDA | 2 < MDA | |
| B5 | N50615 E50105 | ** | D-SV-10541 | 6" | 2 < MDA | 1.36 | |
| | N50615 E50135 | ** | D-SV-10542 | 6" | 1.40 | 2.64 | |
| | | | | | | | |
| B7 | N50615 E50165 | ** | D-SV-10543 | 6" | 1.40 | 1.31 | |

SOIL VERIFICATION DATA

| i | Coordinates | | Sample # | Approx. Depth | Ra-226 (pCi/g) Concentration | | Comments |
|-----|--|--------------------------------------|--------------------------|------------------|---------------------------------|-----------------|---|
| | | | | | Initial | Final | |
| 88 | N50615 E50195 | ** | D-SV-10544 | 6" | 2 < MDA | 1.47 | |
| 89 | N50615 E50225 | ** | D-SV-10545 | 6" | 1 < MDA | 1.72 | |
| 90 | N50615 E50255 | ** | D-SV-10546 | 6" | 1.34 | 2.73 | |
| 91 | N50630 E50270 N50600 E50289 | N50630 E50296 N50600 E50270 | D-SV-10547 | 6" | 1.63 | 2.68 | |
| 92 | N50600 E50270 N50570 E50282 N50540 E50270 | N50600 E50289 N50540 E50284 | D-SV-10555 | 6" | 1.35 | 2.43 | |
| 93 | N50588 E50255 | ** | D-SV-10556 | 6" | 2 < MDA | 1.69 | |
| 94 | N50585 E50225 | ** | D-SV-10557 | 6" | 1 < MDA | 2.12 | |
| 95 | N50585 E50195 | ** | D-SV-10558 | 6" | 1 < MDA | 2.14 | |
| 96 | N50585 E50165 | ** | D-SV-10559 | 6" | 1 < MDA | 2.28 | |
| 97 | N50585 E50135 | ** | D-SV-10560 | 6" | 1 < MDA | 1.99 | |
| 98 | N50585 E50105 | ** | D-SV-10561 | 6" | 1 < MDA | 1.33 | |
| 99 | N50585 E50075 | ** | D-SV-10562 | 6" | 1 < MDA | 1.83 | QC RESULTS Ra-226 Th-23 1.3±0.5 1.0±0 |
| 100 | N50585 E50045 | ** | D-SV-10571 D-SV-10572 | 6" 6" | 1 < MDA 1 < MDA | 1 < MDA 1.25 | Duplicate |
| 101 | N50600 E50015 N50570 E50030 | N50600 E50030 N50570 E50016 | D-SV-10573 | 6" | 1.73 | 2.25 | |
| 102 | N50555 E50045 | ** | D-SV-10574 | 6" | 1 < MDA | 1 < MDA | |

SOIL VERIFICATION DATA

| ID | Coordinates | | Sample # | Approx. Depth | Ra-226 (pCi/g) Concentration | | Comments |
|-----|--|--|------------|------------------|---------------------------------|--------------------|----------|
| | | | | | Initial | Final | |
| 103 | N50555 E50075 | ** | D-SV-10575 | 6" | ¹ < MDA | 1.56 | |
| 104 | N50555 E50105 | ** | D-SV-10576 | 6" | ¹ < MDA | ¹ < MDA | |
| 105 | N50555 E50135 | ** | D-SV-10577 | 6" | ¹ < MDA | 1.90 | |
| 106 | N50555 E50165 | ** | D-SV-10578 | 6" | ² < MDA | 1.64 | |
| 107 | N50555 E50195 | ** | D-SV-10587 | 6" | 2.15 | 1.70 | |
| 108 | N50555 E50225 | ** | D-SV-10593 | 6" | ¹ < MDA | 1.53 | |
| 109 | N50555 E50255 | ** | D-SV-10594 | 6" | 1.78 | 1.70 | |
| 110 | N50540 E50270 N50510 E50586 | N50540 E50284 N50510 E50270 | D-SV-10595 | 6" | 1.80 | 3.03 | |
| 111 | N50525 E50255 | ** | D-SV-10596 | 6" | 1.22 | 2.00 | |
| 112 | N50525 E50225 | ** | D-SV-10597 | 6" | ¹ < MDA | 1.69 | |
| 113 | N50525 E50195 | ** | D-SV-10598 | 6" | ¹ < MDA | ¹ < MDA | |
| 114 | N50525 E50165 | ** | D-SV-10599 | 6" | 1.24 | 1.39 | |
| 115 | N50525 E50135 | ** | D-SV-10563 | 6" | 1.63 | 2.34 | |
| 116 | N50525 E50105 | ** | D-SV-10564 | 6" | ¹ < MDA | 1.63 | |
| 117 | N50525 E50075 | ** | D-SV-10565 | 6" | ¹ < MDA | 1.43 | |
| 118 | N50540 E50030 N50510 E50060 N50520 E50030 | N50540 E50060 N50510 E50031 | D-SV-10566 | 6" | 1.21 | 1.64 | |

SOIL VERIFICATION DATA

| 4 | Coordinates | | Sample # | Approx. Depth | Ra-226 (pCi/g) Concentration | | Comments |
|-----|------------------|------------------|--------------------------|------------------|---------------------------------|--------------|---|
| | | | | | Initial | Final | |
| 119 | N50570 E50016 | N50570 E50030 | D-SV-10567 | 6" | 1.35 | 2.09 | |
| | N50520 E50030 | | | | | | |
| 120 | N50510 E50031 | N50510 E50060 | D-SV-10569 D-SV-10568 | 6" 6" | 1.18 1.54 | 3.27 1.89 | Duplicate |
| | N50480 E50060 | N50480 E50039 | | | | | |
| 121 | N50495 E50075 | ** | D-SV-10570 | 6" | 2 < MDA | 1.77 | |
| 122 | N50495 E50105 | ** | D-SV-10579 | 6" | 1.28 | 2.57 | |
| 123 | N50495 E50135 | ** | D-SV-10580 | 6" | 2 < MDA | 2.77 | |
| 124 | N50495 E50165 | ** | D-SV-10581 | 6" | 1.30 | 2.33 | |
| - - | N50495 E50195 | ** | D-SV-10582 | 6" | 2 < MDA | 2.51 | QC RESULTS Ra-226 Th-230 1.4±0.6 2.3±0. |
| 126 | N50495 E50225 | ** | D-SV-10583 | 6" | 2 < MDA | 2.06 | |
| 127 | N50495 E50255 | *8 | D-SV-10584 | 6" | 1.16 | 2.70 | |
| 128 | N50510 E50270 | N50510 E50286 | D-SV-10585 | 6" | 1.27 | 1.54 | |
| | N50504 E50286 | N50504 E50300 | | | | | |
| | N50480 E50300 | N50480 E50270 | | | | | |
| 129 | N50504 E50300 | N50504 E50318 | D-SV-10586 | 6" | 2 < MDA | 1.49 | |
| | N50437 E50300 | | | | | | |
| 130 | N50465 E50285 | ** | D-SV-10600 | 6" | 1.43 | 2.45 | |
| | N50465 E50255 | ** | D-SV-10601 | 6" | 2 < MDA | 1.58 | |
| 132 | N50465 E50225 | ** | D-SV-10602 | 6" | 2 < MDA | 1.89 | |

SOIL VERIFICATION DATA

| Ed D | Coordinates | | Sample # | Approx. Depth | Ra-226 (pCi/g) Concentration | | Comments |
|---------|--|--------------------------------------|--------------------------|------------------|---------------------------------|----------------|---|
| | | | | | Initial | Final | |
| 133 | N50465 E50195 | ** | D-SV-10603 | 6" | 1.61 | 1.33 | |
| 134 | N50465 E50165 | ** | D-SV-10604 | 6" | 1.94 | 2.50 | |
| 135 | N50465 E50135 | ** | D-SV-10605 | 6" | 2 <MDA | 2.37 | |
| 136 | N50465 E50105 | ** | D-SV-10606 | 6" | 2 <MDA | 1.88 | |
| 137 | N50480 E50060 N50450 E50090 N50455 E50060 | N50480 E50090 N50450 E50067 | D-SV-10607 | 6" | 2 <MDA | 1 <MDA | QC results forwarded when available |
| 138 | N50480 E50039 N50455 E50060 | N50480 E50060 N50466 E50043 | D-SV-10608 | 6" | 1.64 | 1.93 | |
| 139 | N50450 E50067 N50383 E50090 | N50450 E50090 | D-SV-10619 | 6" | 1 <MDA | 1 <MDA | |
| 140 | N50435 E50105 | ** | D-SV-10620 D-SV-10621 | 6" 6" | 1.54 1 <MDA | 2.29 1 <MDA | Duplicate |
| 141 | N50435 E50135 | ** | D-SV-10622 | 6" | 1 <MDA | 1 <MDA | |
| 142 | N50435 E50165 | ** | D-SV-10623 | 6" | 1 <MDA | 1.87 | |
| 143 | N50435 E50195 | ** | D-SV-10624 | 6" | 1 <MDA | 1.27 | |
| 144 | N50435 E50225 | ** | D-SV-10625 | 6" | 1 <MDA | 1.95 | |
| | N50435 E50255 | ** | D-SV-10626 | 6" | 1 <MDA | 2.25 | |
| 146 | N50450 E50270 | N50450 E50300 | D-SV-10627 | 6" | 2 <MDA | 2.31 | |

SOIL VERIFICATION DATA

| ID | Coordinates | | Sample # | Approx. Depth | Ra-226 (pCi/g) Concentration | | Comments |
|------|-------------|--------|------------|------------------|---------------------------------|---------|---|
| | | | | | Initial | Final | |
| 146 | N50436 | N50420 | | | | | |
| cont | E50300 | E50296 | | | | | |
| | N50420 | | | | | | |
| | E50270 | | | | | | |
| 147 | N50420 | N50420 | D-SV-10628 | 6" | 1 < MDA | 2.18 | |
| | E50270 | E50296 | | | | | |
| | N50390 | N50390 | | | | | |
| | E50288 | N50270 | | | | | |
| 148 | N50405 | ** | D-SV-10629 | 6" | 1 < MDA | 2.50 | |
| | E50255 | | | | | | |
| 149 | N50405 | ** | D-SV-10630 | 6" | 1 < MDA | 1.16 | |
| | E50225 | | | | | | |
| 150 | N50405 | ** | D-SV-10631 | 6" | 1 < MDA | 2 < MDA | |
| | E50195 | | | | | | |
| 151 | N50405 | ** | D-SV-10632 | 6" | 1 < MDA | 1.57 | |
| | E50165 | | | | | | |
| 152 | N50405 | ** | D-SV-10633 | 6" | 1 < MDA | 1.39 | |
| | E50135 | | | | | | |
| 153 | N50405 | ** | D-SV-10634 | 6" | 1 < MDA | 2.26 | |
| | E50105 | | | | | | |
| 154 | N50390 | N50390 | D-SV-10635 | 6" | 1.90 | 1.85 | |
| | E50090 | E50120 | | | | | |
| | N50327 | N50360 | | | | | |
| | E50120 | E50098 | | | | | |
| | N50383 | | | | | | |
| | E50090 | | | | | | |
| 155 | N50375 | ** | D-SV-10636 | 6" | 1.47 | 1.80 | |
| | E50135 | | | | | | |
| 156 | N50375 | ** | D-SV-10637 | 6" | 1 < MDA | 1.69 | QC results forwarded when available |
| | E50165 | | | | | | |
| 157 | N50375 | ** | D-SV-10638 | 6" | 1.44 | 1.74 | |
| | E50195 | | | | | | |
| 158 | N50375 | ** | D-SV-10639 | 6" | 1.67 | 2.36 | |
| | E50255 | | | | | | |
| 159 | N50375 | ** | D-SV-10643 | 6" | 3.11 | 5.32 | |
| | E50255 | | | | | | |

SOIL VERIFICATION DATA

| | Coordinates | | Sample # | Approx. Depth | Ra-226 (pCi/g) Concentration | | Comments |
|-----|------------------|------------------|--------------------------|------------------|---------------------------------|--------------------|-----------|
| | | | | | Initial | Final | |
| 60 | N50390 E50270 | N50390 E50288 | D-SV-10753 D-SV-10754 | 6" 6" | 1.50 1.76 | 3.23 3.13 | Duplicate |
| | N50360 E50279 | N50360 E50270 | | | | | |
| 61 | N50360 E50270 | N50360 E50279 | D-SV-10644 | 6" | 2.09 | 3.69 | |
| | N50354 E50278 | N50350 E50292 | | | | | |
| | N50330 E50292 | N50330 E50270 | | | | | |
| 162 | N50345 E50255 | ** | D-SV-10645 | 6" | 1.40 | 2.00 | |
| 163 | N50345 E50225 | ** | D-SV-10646 | 6" | 1.34 | 2.06 | |
| 164 | N50345 E50195 | ** | D-SV-10647 | 6" | 1.75 | 2.56 | |
| 165 | N50345 E50165 | ** | D-SV-10648 | 6" | ² < MDA | 2.01 | |
| 166 | N50345 E50135 | ** | D-SV-10649 | 6" | 1.25 | ² < MDA | |
| 167 | N50330 E50120 | N50330 E50150 | D-SV-10650 | 6" | ² < MDA | 1.89 | |
| | N50282 E50150 | N50237 E50120 | | | | | |
| 168 | N50315 E50165 | ** | D-SV-10651 | 6" | 1.54 | 1.62 | |
| 169 | N50315 E50195 | ** | D-SV-10652 | 6" | 1.42 | 1.55 | |
| 170 | N50315 E50225 | ** | D-SV-10653 | 6" | ² < MDA | 2.50 | |
| 171 | N50315 E50255 | ** | D-SV-10755 | 6" | 1.24 | 3.22 | |
| | N50330 E50270 | N50330 E50292 | D-SV-10654 | 6" | 1.64 | 3.57 | |
| | N50300 E50292 | N50300 E50270 | | | | | |

SOIL VERIFICATION DATA

| Sample # | Coordinates | Sample # | Approx. Depth | Ra-226 (pCi/g) Concentration Initial - Final | | Comments |
|----------|--|--------------------------------------|--------------------------|--|------------------------------|--|
| | | | | Initial | Final | |
| 173 | N50300 E50270 N50270 E50299 | N50300 E50292 N50270 E50270 | D-SV-10655 | 6" | 1.36 1.67 | |
| 174 | N50285 E50255 | ** | D-SV-10756 | 6" | 3.50 4.13 | |
| 175 | N50285 E50225 | ** | D-SV-10656 | 6" | 1.33 2.49 | |
| 176 | N50285 E50195 | ** | D-SV-10657 | 6" | 1.40 2.47 | |
| 177 | N50300 E50150 N50270 E50180 N50282 E50150 | N50300 E50180 N50270 E50158 | D-SV-10658 | 6" | 1.50 2.53 | QC RESULTS Ra-226 Th-230 1.7±0.6 1.2±0.5 |
| 178 | N50270 E50158 N50188 E50180 | N50270 E50180 | D-SV-10714 | 6" | 1.95 2.38 | QC results forwarded when available |
| 179 | N50255 E50195 | ** | D-SV-10715 | 6" | 1.50 3.15 | |
| 180 | N50255 E50225 | ** | D-SV-10716 D-SV-10717 | 6" 6" | 1.28 1.60 2.36 2.15 | Duplicate |
| 181 | N50255 E50255 | ** | D-SV-10718 | 6" | 1.63 2.99 | |
| 182 | N50270 E50270 N50264 E50300 N50240 E50270 | N50270 E50299 N50240 E50300 | D-SV-10719 | 6" | ¹ < MDA 2.81 | |
| 183 | N50225 E50285 | ** | D-SV-10720 | 6" | 1.32 2.50 | |
| 184 | N50225 E50255 | ** | D-SV-10721 | 6" | 2.02 3.82 | |
| 185 | N50225 E50225 | ** | D-SV-10722 | 6" | 1.20 2.01 | |

SOIL VERIFICATION DATA

| 2 | Coordinates | | Sample # | Approx. Depth | Ra-226 (pCi/g) Concentration | | Comments |
|-----|--|--------------------------------------|------------|------------------|---------------------------------|-------|----------|
| | | | | | Initial | Final | |
| 86 | N50225 E50195 | ** | D-SV-10723 | 6" | 1.18 | 1.80 | |
| 87 | N50210 E50180 N50180 E50210 N50188 E50180 | N50210 E50210 N50180 E50182 | D-SV-10724 | 6" | 1.66 | 2.09 | |
| 188 | N50195 E50225 | ** | D-SV-10725 | 6" | 1.80 | 1.97 | |
| 189 | N50195 E50255 | ** | D-SV-10726 | 6" | 1.27 | 1.86 | |
| 190 | N50195 E50285 | ** | D-SV-10727 | 6" | 1.70 | 3.64 | |
| 191 | N50264 E50300 N50209 E50304 N50180 E50300 | N50209 E50312 N50180 E50311 | D-SV-10728 | 6" | 3.06 | 4.04 | |
| 192 | N50180 E50300 N50142 E50320 | N50180 E50311 N50142 E50300 | D-SV-10729 | 6" | 1.32 | 2.46 | |
| 193 | N50165 E50285 | ** | D-SV-10731 | 6" | 1.25 | 2.62 | |
| 194 | N50165 E50255 | ** | D-SV-10730 | 6" | 1.71 | 1.79 | |
| 195 | N50165 E50225 | ** | D-SV-10732 | 6" | 1.78 | 3.54 | |
| 196 | N50180 E50182 N50140 E50210 | N50180 E50210 N50140 E50193 | D-SV-10733 | 6" | 1.47 | 2.86 | |

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SOIL VERIFICATION DATA

| | Coordinates | | Sample # | Approx. Depth | Ra-226 (pCi/g) Concentration | | Comments |
|-----|------------------|------------------|--------------------------|------------------|---------------------------------|--------------|---|
| | | | | | Initial | Final | |
| 197 | N50150 E50210 | N50150 E50240 | D-SV-10757 | 6" | 1.26 | 3.91 | |
| | N50120 E50240 | N50120 E50212 | | | | | |
| | N50140 E50210 | | | | | | |
| 198 | N50135 E50255 | ** | D-SV-10758 | 6" | 1.34 | 1.78 | |
| 199 | N50150 E50270 | N50150 E50300 | D-SV-10759 | 6" | 1.63 | 2.15 | |
| | N50142 E50300 | N50142 E50292 | | | | | |
| | N50120 E50300 | N50120 E50300 | | | | | |
| | N50120 E50270 | | | | | | |
| | N50105 E50285 | ** | D-SV-10760 D-SV-10761 | 6" 6" | 1.42 1 < MDA | 2.14 2.11 | Duplicate |
| 201 | N50105 E50255 | ** | D-SV-10762 | 6" | 1.47 | 2.81 | QC results forwarded when available |
| 202 | N50120 E50212 | N50120 E50240 | D-SV-10763 | 6" | 1.71 | 3.60 | |
| | N50090 E50240 | N50090 E50215 | | | | | |
| 203 | N50090 E50215 | N50090 E50240 | D-SV-10764 | 12" | 1.56 | 2.99 | |
| | N50060 E50240 | N50060 E50215 | | | | | |
| 204 | N50075 E50225 | ** | D-SV-10765 | 12" | 1 < MDA | 2.46 | |
| 205 | N50075 E50285 | ** | D-SV-10766 | 12" | 1.58 | 2.73 | |
| 206 | N50120 E50300 | N50120 E50310 | D-SV-10767 | 12" | 2.12 | 4.62 | |
| | N50060 E50321 | N50060 E50300 | | | | | |

SOIL VERIFICATION DATA

| | Coordinates | | Sample # | Approx. Depth | Ra-226 (pCi/g) Concentration | | Comments |
|-----|------------------|------------------|------------|------------------|---------------------------------|-------|----------|
| | | | | | Initial | Final | |
| 207 | N50060 E50300 | N50600 E50321 | D-SV-10768 | 12" | 1.59 | 3.39 | |
| | N50030 E50332 | N50030 E50300 | | | | | |
| 208 | N50045 E50285 | ** | D-SV-10769 | 12" | 1.65 | 3.13 | |
| 209 | N50045 E50255 | ** | D-SV-10770 | 12" | 1.48 | 3.39 | |
| 210 | N50060 E50215 | N50060 E50240 | D-SV-10771 | 12" | 2.90 | 4.40 | |
| | N50030 E50240 | N50030 E50214 | | | | | |
| 211 | N50030 E50214 | N50030 E50240 | D-SV-10772 | 12" | 4.00 | 6.93 | |
| | N50000 E50240 | N50000 E50214 | | | | | |
| 212 | N50015 E50255 | ** | D-SV-10773 | 12" | ¹ < MDA | 3.03 | |
| 213 | N50015 E50285 | *8 | D-SV-10774 | 12" | ² < MDA | 2.99 | |
| 214 | N50015 E50315 | *8 | D-SV-10775 | 12" | 1.94 | 3.12 | |
| 215 | N49985 E50315 | ** | D-SV-10776 | 12" | ² < MDA | 3.03 | |
| 216 | N49985 E50285 | ** | D-SV-10777 | 12" | 1.30 | 2.15 | |
| 217 | N49985 E50255 | ** | D-SV-10778 | 12" | 1.84 | 3.03 | |
| 218 | N50000 E50214 | N50000 E50240 | D-SV-10779 | 12" | 2.04 | 4.64 | |
| | N49970 E50240 | N49970 E50213 | | | | | |
| 219 | N49970 E50213 | N49970 E50240 | D-SV-10780 | 12" | 2.85 | 5.46 | |
| | N49930 E50240 | N49938 E50216 | | | | | |

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SOIL VERIFICATION DATA

| Coordinates | | | Sample # | Approx. Depth | Ra-226 (pCi/g) Concentration Initial - Final | | Comments |
|-------------|--|--|--------------------------|------------------|--|--------------|---|
| 20 | N49955 E50255 | ** | D-SV-10781 D-SV-10782 | 12" 12" | ² <MDA 1.34 | 2.03 2.44 | QC Duplicate |
| 21 | N49955 E50285 | ** | D-SV-10783 | 12" | ² <MDA | 2.04 | QC results forwarded when available |
| 22 | N49955 E50315 | ** | D-SV-10784 | 12" | 2.06 | 2.25 | |
| 223 | N50030 E50330 N49940 E50353 | N50030 E50332 N49940 E50330 | D-SV-10785 | 12" | 2.57 | 4.85 | |
| 224 | N49940 E50330 N49910 E50360 | N49940 E50353 N49910 E50330 | D-SV-10786 | 12" | 2.86 | 3.72 | |
| 225 | N49925 E50315 | ** | D-SV-10787 | 12" | 2.35 | 3.79 | |
| 226 | N49925 E50285 | ** | D-SV-10788 | 12" | 1.28 | 1.68 | |
| 227 | N49940 E50240 N49910 E50270 N49938 E50243 | N49940 E50270 N49910 E50249 N49930 E50240 | D-SV-10789 | 12" | 1.25 | 1.98 | |
| 228 | N49910 E50249 N49880 E50270 | N49910 E50270 N49880 E50256 | D-SV-10790 | 12" | 1.25 | 1.83 | |
| 229 | N49895 E50285 | ** | D-SV-10791 | 12" | ² <MDA | 1.83 | |
| 230 | N49895 E50315 | ** | D-SV-10792 | 12" | 1.54 | 2.03 | |
| 231 | N49895 E50345 | ** | D-SV-10793 | 12" | 3.18 | 5.28 | |
| 232 | N49865 E50345 | ** | D-SV-10794 | 12" | 2.02 | 3.64 | |
| 233 | N49865 E50315 | ** | D-SV-10795 | 12" | 1.37 | 2.04 | |

SOIL VERIFICATION DATA

| | Coordinates | | Sample # | Approx. Depth | Ra-226 (pCi/g) Concentration | | Comments |
|-----|------------------|------------------|------------|------------------|---------------------------------|-------|----------|
| | | | | | Initial | Final | |
| 234 | N49865 E50285 | ** | D-SV-10796 | 12" | 1.20 | 2.95 | |
| 235 | N49880 E50256 | N49880 E50270 | D-SV-10797 | 12" | 3.01 | 3.68 | |
| | N49838 E50270 | N49850 E50262 | | | | | |
| 236 | N49850 E50270 | N49850 E50300 | D-SV-10798 | 12" | 2 < MDA | 1.95 | |
| | N49826 E50300 | N49838 E50270 | | | | | |
| 237 | N49850 E50300 | N49850 E50330 | D-SV-10799 | 12" | 2.04 | 4.33 | |
| | N49830 E50330 | N49826 E50300 | | | | | |
| 238 | N49850 E50330 | N49850 E50360 | D-SV-10800 | 12" | 3.47 | 4.45 | |
| | N49835 E50360 | N49830 E50330 | | | | | |
| 239 | N49910 E50360 | N49850 E50368 | D-SV-10801 | 12" | 5.36 | 8.41 | |
| | N49835 E50360 | | | | | | |

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SOIL VERIFICATION DATA

| GRID ID | COORDINATES | | SOIL VERIFICATION DATA | | | | |
|-----------------------|-------------|--------|------------------------|---------------|--|------|----------|
| | | | SAMPLE # | APPROX. DEPTH | Ra-226 (pCi/g) CONCENTRATION INITIAL - FINAL | | COMMENTS |
| EAST SIDE OF PROPERTY | | | | | | | |
| 240 | N50830 | N50860 | DU-SV-14982 | 0'9" | 1.55 | 3.58 | |
| | E50340 | E50340 | | | | | |
| | N50860 | N50830 | | | | | |
| | E50370 | E50370 | | | | | |
| 241 | N50800 | N50830 | DU-SV-14983 | 0'9" | 1.27 | 2.08 | |
| | E50340 | E50340 | | | | | |
| | N50830 | N50800 | | | | | |
| | E50370 | E50361 | | | | | |
| 242 | N50770 | N50800 | DJ-SV-14984 | 0'9" | 1.57 | 2.98 | |
| | E50340 | E50340 | | | | | |
| | N50800 | N50770 | | | | | |
| | E50361 | E50349 | | | | | |
| 243 | N50710 | N50770 | DU-SV-14985 | 0'9" | 2.23 | 3.69 | |
| | E50340 | E50340 | | | | | |
| | N50770 | | | | | | |
| | E50349 | | | | | | |
| 244 | N50830 | N50860 | DU-SV-14986 | 0'9" | 1.32 | 4.13 | |
| | E50312 | E50320 | | | | | |
| | N50860 | N50830 | | | | | |
| | E50340 | E50340 | | | | | |
| 245 | N50800 | N50830 | DU-SV-14987 | 0'9" | 2.01 | 2.72 | |
| | E50313 | E50312 | | | | | |
| | N50830 | N50800 | | | | | |
| | E50340 | E50340 | | | | | |
| 246 | N50770 | N50800 | DU-SV-14988 | 0'9" | 0.97 | 2.59 | |
| | E50313 | E50313 | | | | | |
| | N50800 | N50770 | | | | | |
| | E50340 | E50340 | | | | | |
| 247 | N50740 | N50770 | DU-SV-14989 | 0'9" | 1.30 | 2.62 | |
| | E50313 | E50313 | | | | | |
| | N50770 | N50740 | | | | | |
| | E50340 | E50340 | | | | | |

TABLE 1

TABLE 1

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SOIL VERIFICATION DATA

| GRID ID | COORDINATES | | SAMPLE # | APPROX. DEPTH | Ra-226 (pCi/g) | | COMMENTS |
|---------|-------------|--------|-------------|---------------|----------------|-------|---|
| | | | | | INITIAL | FINAL | |
| 248 | N50710 | N50740 | DU-SV-14990 | 0'9" | 1.41 | 3.78 | |
| | E50308 | E50313 | | | | | |
| | N50740 | N50710 | | | | | |
| | E50340 | E50340 | | | | | |
| 249 | N50680 | N50710 | DU-SV-14991 | 0'9" | 3.07 | 6.12 | |
| | E50303 | E50308 | | | | | |
| | N50710 | N50680 | | | | | |
| | E50340 | E50330 | | | | | |
| 250 | N50650 | N50680 | DU-SV-14992 | 0'9" | 1.41 | 3.18 | |
| | E50298 | E50303 | | | | | |
| | N50680 | N50650 | | | | | |
| | E50330 | E50320 | | | | | |
| 251 | N50620 | N50650 | DU-SV-14993 | 0'9" | 1.85 | 3.37 | |
| | E50293 | E50298 | | | | | |
| | N50650 | N50620 | | | | | |
| | E50320 | E50314 | | | | | |
| 252 | N50590 | N50620 | DU-SV-14994 | 0'9" | 2.02 | 4.30 | |
| | E50290 | E50293 | | | | | |
| | N50620 | N50590 | | | | | |
| | E50314 | E50306 | | | | | |
| 253 | N50570 | N50590 | DU-SV-14995 | 0'9" | 1.77 | 3.11 | QC Ra226 Th230 2.8 2.9 ±0.8 ±0.7 |
| | E50284 | E50290 | | | | | |
| | N50590 | N50570 | | | | | |
| | E50306 | E50300 | | | | | |
| 254 | N50540 | N50570 | DU-SV-14996 | 0'9" | 1.56 | 2.78 | |
| | E50284 | E50284 | | | | | |
| | N50570 | N50540 | | | | | |
| | E50300 | E50299 | | | | | |
| 255 | N50500 | N50540 | DU-SV-14997 | 0'9" | 1.47 | 3.22 | |
| | E50300 | E50284 | | | | | |
| | N50540 | N50500 | | | | | |
| | E50284 | E50299 | | | | | |
| 255D | N50500 | N50540 | DU-SV-14998 | 0'9" | 1.75 | 4.19 | Duplicate |
| | E50300 | E50284 | | | | | |

TABLE 1 (Cont)

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SOIL VERIFICATION DATA

| SOIL VERIFICATION DATA | | | | | | | |
|------------------------|--------------------|--------------------|--------------------|---|---------------|--|--|
| GRID ID | COORDINATES | | | SAMPLE # | APPROX. DEPTH | Ra-226 (pCi/g) CONCENTRATION INITIAL - FINAL | COMMENTS |
| WEST SIDE OF PROPERTY | | | | *Indicates Southwest Corner of 33'X33' Grid | | | |
| 36 | N50,467 E49,967 | N50,433 E49,967 | N50,433 E49,933 | DU-SV-15980 | .5' | 1.94 3.53 | |
| 37 | N50,433 E49,967 | * | | DU-SV-15971 | .5' | 2.37 4.55 | |
| 38 | N50,400 E49,967 | * | | DU-SV-15972 | .5' | 1.76 1.82 | Verification Grid #259 |
| 39 | N50,400 E49,933 | * | | DU-SV-15978 | .5' | 1.26 1.71 | |
| 40 | N50,433 E49,933 | N50,400 E49,933 | N50,400 E49,900 | DU-SV-15979 | .5' | 1.55 2.81 | |
| 41 | N50,367 E49,900 | * | | DU-SV-15976 | .5' | 1.10 3.17 | |
| 42 | N50,367 E49,933 | * | | DU-SV-15974 | .5' | 0.94 1.47 | #261 |
| 45 | N50,467 E50,000 | * | | DU-SV-15968 | .5' | 1.41 2.12 | #256 |
| 46 | N50,433 E50,000 | * | | DU-SV-15969 | .5' | 0.22 3.15 | #257 |
| 47 | N50,400 E50,000 | * | | DU-SV-15970 | .5' | 2.06 3.33 | #258 |
| 54 | N50,367 E49,967 | * | | DU-SV-15973 | .5' | 1.22 2.15 | #260 |
| 59 | N50,333 E49,933 | * ^a | | DU-SV-15975 | .5' | 1.52 2.25 | QC Ra226 Th230 2.2 3.0 ±0.8 ±0.7 #262 |
| 60 | N50,333 E49,900 | * | | DU-SV-15977 | .5' | 2.81 4.39 | #263 |
| A | N50,400 E49,900 | N50,367 E49,900 | N50,367 E49,867 | DU-SV-15981 | .5' | 1.33 3.34 | |
| B | N50,333 E49,867 | * | | DU-SV-15982 | .5' | 2.32 5.05 | |
| C | N50,333 E49,833 | * | | DU-SV-15983 | .5' | 1.02 2.08 | |
| Cd | N50,333 E49,833 | * | | DU-SV-15984 | .5' | 1.65 2.67 | Duplicate |

TABLE 2

TABLE 2

APPENDIX B
SUPPLEMENTAL STANDARDS
RADIOLOGICAL SURVEY DATA

DU-059.096
SLOPE SURVEY

INTRODUCTION:

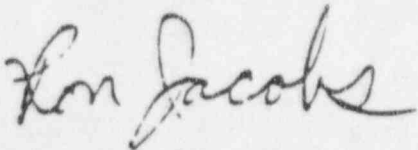
A comprehensive radiological characterization survey was performed on the steep slopes of DU-096 and the West and South slopes of DU-059. This data is necessary to determine whether remediation will be performed or supplemental standards will be applied.

GAMMA SURVEY:

A grid system was set up and each 33'x33' grid was scanned. One representative set of contact and one meter readings was recorded for each grid.

SOIL SAMPLES:

Soil samples were collected in each grid following standard verification sample collection techniques.



RON JACOBS
3-10-89

OUTDOOR GAMMA SCREENING
SURVEY DATA SHEET

LOGGING CREW: Dan Murphy

SHEET 1 OF 6 PAGE 1

Chris Workman

DATE: 3-9-89

Bob Green, Dennis Jones

PROPERTY ID: 059

INSTRUMENT ID NO.: ESP-1 - #1709

BACKGROUND CALCULATION:

#1 _____ + #2 _____ + #3 _____ = _____ + 3 = _____ COUNTS/1MIN

| AREA: <u>CONTACT</u> | | AREA: <u>1 meter</u> | | AREA: <u>CONTACT</u> | | AREA: <u>1-meter</u> | |
|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|
| POINT ID | READING COUNTS/1MIN | POINT ID | READING COUNTS/1MIN | POINT ID | READING COUNTS/1MIN | POINT ID | READING COUNTS/1MIN |
| 1 | 1900 | 1 | 1960 | 25 | 2200 | 25 | 2000 |
| 2 | 2010 | 2 | 1910 | 26 | 2300 | 26 | 2100 |
| 3 | 2100 | 3 | 2130 | 27 | 1700 | 27 | 1760 |
| 4 | 2130 | 4 | 2260 | 28 | 1940 | 28 | 1960 |
| 5 | 1780 | 5 | 1900 | 29 | 2770 | 29 | 2190 |
| 6 | 1540 | 6 | 1740 | 30 | 2930 | 30 | 2670 |
| 7 | 2070 | 7 | 1980 | 31 | 2400 | 31 | 2200 |
| 8 | 2000 | 8 | 1950 | 32 | 2090 | 32 | 2090 |
| 9 | 1960 | 9 | 1910 | 33 | 2170 | 33 | 2080 |
| 10 | 2030 | 10 | 1970 | 34 | 2620 | 34 | 2440 |
| 11 | 1950 | 11 | 1980 | 35 | 2520 | 35 | 2310 |
| 12 | 1990 | 12 | 1960 | 36 | 2030 | 36 | 2120 |
| 13 | 1960 | 13 | 1970 | 37 | 2560 | 37 | 2230 |
| 14 | 1990 | 14 | 2110 | 38 | 2090 | 38 | 2150 |
| 15 | 2060 | 15 | 2110 | 39 | 2090 | 39 | 2160 |
| 16 | 2220 | 16 | 2020 | 40 | 2080 | 40 | 2080 |
| 17 | 2130 | 17 | 2100 | 41 | 1970 | 41 | 2070 |
| 18 | 2500 | 18 | 2350 | 42 | 1570 | 42 | 2100 |
| 19 | 2300 | 19 | 2100 | 43 | 1080 | 43 | 1100 |
| 20 | 2300 | 20 | 2100 | 44 | 1440 | 44 | 934 |
| 21 | 2300 | 21 | 2000 | 45 | 1730 | 45 | 1460 |
| 22 | 2800 | 22 | 2100 | 46 | 1460 | 46 | 1490 |
| 23 | 3000 | 23 | 2200 | 47 | 1630 | 47 | 1650 |
| 24 | 2800 | 24 | 2200 | 48 | 2180 | 48 | 1980 |

REMARKS: _____

OUTDOOR GAMMA SCREENING SURVEY DATA SHEET

LOGGING CREW: Don Murphy, Dennis

SHEET 2 OF 6 PAGE 2

Jones, Chris, Workman,

DATE: 3-9-99

Terry, Herman, Barb, Gene

PROPERTY ID: 059

INSTRUMENT ID NO.: ESP 1 - #1709

BACKGROUND CALCULATION:

#1 _____ + #2 _____ + #3 _____ = _____ - 3 = _____ COUNTS/1MIN

| AREA: <u>CONTACT</u> | | AREA: <u>1 Meter</u> | | AREA: <u>CONTACT</u> | | AREA: <u>1-METER</u> | |
|----------------------|----------------------|----------------------|---------------------|----------------------|----------------------|----------------------|---------------------|
| POINT ID | READING COUNTS/1MIN | POINT ID | READING COUNTS/1MIN | POINT ID | READING COUNTS/1MIN | POINT ID | READING COUNTS/1MIN |
| 49 | 1720 | 49 | 1690 | 73 | 1700 | 73 | 1730 |
| 50 | 1290 | 50 | 1480 | 74 | 1590 | 74 | 1540 |
| 51 | 1350 | 51 | 1520 | 75 | 1760 | 75 | 1740 |
| 52 | 1420 | 52 | 1550 | 76 | 1580 | 76 | 1020 |
| 53 | 1960 | 53 | 1670 | 77 | 1900 | 77 | 1790 |
| 54 | 1710 | 54 | 1700 | 78 | 1770 | 78 | 1960 |
| 55 | 1410 | 55 | 1580 | 79 | 2030 | 79 | 1730 |
| 56 | 2420 | 56 | 2130 | 80 | 1380 | 80 | 1500 |
| 57 | 1670 | 57 | 1750 | 81 | 1580 | 81 | 1600 |
| 58 | 2060 | 58 | 1950 | 82 | 1890 | 82 | 1760 |
| 59 | 2160 | 59 | 2010 | 83 | 2150 | 83 | 1820 |
| 60 | 2260 | 60 | 2080 | 84 | 1720 | 84 | 1600 |
| 61 | 1710 | 61 | 1750 | 85 | 1720 | 85 | 1620 |
| 62 | 1650 | 62 | 1690 | 86 | 1590 | 86 | 1480 |
| 63 | 1670 | 63 | 1630 | 87 | 1210 | 87 | 1340 |
| 64 | 1720 | 64 | 1650 | 88 | 2070 | 88 | 1900 |
| 65 | 2260 | 65 | 1880 | 89 | 1930 | 89 | 1860 |
| 66 | 2000 | 66 | 1900 | 90 | 2070 | 90 | 1890 |
| 67 | 2540 | 67 | 2050 | 91 | 1990 | 91 | 1790 |
| 68 | 1910 ²⁰⁰⁰ | 68 | 1910 | 92 | 2220 2220 | 92 | 1820 |
| 69 | 1930 | 69 | 1900 | 93 | 2160 | 93 | 1800 |
| 70 | 1990 | 70 | 1810 | 94 | 2330 | 94 | 1980 |
| 71 | 2170 | 71 | 1890 | 95 | 2510 | 95 | 1980 |
| 72 | 1820 | 72 | 1750 | 96 | 2650 | 96 | 1980 |

REMARKS: _____

OUTDOOR GAMMA SCREENING SURVEY DATA SHEET

LOGGING CREW: Don Murphy, Dennis Jones, Chris Workman, Terry Herman, Bob Greene

SHEET 4 OF 6 PAGE 4

DATE: 3-8-89

PROPERTY ID: 059

INSTRUMENT ID NO.: ESP-1 - # 1709

BACKGROUND CALCULATION:

#1 _____ + #2 _____ + #3 _____ = _____ - 3 = _____ COUNTS/1MIN

| AREA: <u>CONTACT</u> | | AREA: <u>1 METER</u> | | AREA: <u>CONTACT</u> | | AREA: <u>1- METER</u> | |
|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|-----------------------|---------------------|
| POINT ID | READING COUNTS/1MIN | POINT ID | READING COUNTS/1MIN | POINT ID | READING COUNTS/1MIN | POINT ID | READING COUNTS/1MIN |
| 97 | 2460 | 97 | 1930 | 121 | 2520 | 121 | 1980 |
| 98 | 2160 | 98 | 1630 | 122 | 1620 | 122 | 1430 |
| 99 | 2250 | 99 | 1900 | 123 | 1290 | 123 | 1290 |
| 100 | 2250 | 100 | 1970 | 124 | 1660 | 124 | 1680 |
| 101 | 1970 | 101 | 1970 | 125 | 1470 | 125 | 1500 |
| 102 | 3060 | 102 | 2190 | 126 | 1450 | 126 | 1440 |
| 103 | 2390 | 103 | 1990 | 127 | 1980 | 127 | 2040 |
| 104 | 2390 | 104 | 1990 | 128 | 2410 | 128 | 2140 |
| 105 | 1950 | 105 | 1620 | 129 | 2370 | 129 | 2310 |
| 106 | 1740 | 106 | 1640 | 130 | 2190 | 130 | 2330 |
| 107 | 1930 | 107 | 1910 | 131 | 2930 | 131 | 2480 |
| 108 | 2940 | 108 | 2930 | 132 | 2500 | 132 | 2400 |
| 109 | 2520 | 109 | 2140 | 133 | 1500 | 133 | 1620 |
| 110 | 1990 | 110 | 2400 | 134 | 2850 | 134 | 1740 |
| 111 | 1840 | 111 | 1790 | 135 | 2630 | 135 | 2170 |
| 112 | 1920 | 112 | 2070 | 136 | 2020 | 136 | 2190 |
| 113 | 2290 | 113 | 1990 | 137 | 2710 | 137 | 2130 |
| 114 | 2250 | 114 | 1920 | 138 | 2020 | 138 | 1970 |
| 115 | 1980 | 115 | 1760 | 139 | 2220 | 139 | 1960 |
| 116 | 2280 | 116 | 1760 | 140 | 2020 | 140 | 1960 |
| 117 | 2160 | 117 | 1950 | 141 | 2580 | 141 | 1910 |
| 118 | 2590 | 118 | 1910 | 142 | 1620 | 142 | 1941 |
| 119 | 2594 | 119 | 1950 | 143 | 2590 | 143 | 1950 |
| 120 | 2300 | 120 | 1950 | 144 | 1790 | 144 | 1530 |

REMARKS: _____

OUTDOOR GAMMA SCREENING
SURVEY DATA SHEET

LOGGING CREW: Dan Murphy, Dennis Jones,
Chris Lockman, Terry Herman,
Bob Greene

SHEET 3 OF 6 PAGE 3

DATE: 3-8-89

PROPERTY ID: 059

INSTRUMENT ID NO.: ESP-1 - #1709

BACKGROUND CALCULATION:

#1 _____ + #2 _____ + #3 _____ = _____ - 3 = _____ COUNTS/1MIN

| AREA: <u>Contact</u> | | AREA: <u>1-meter</u> | | AREA: <u>Contact</u> | | AREA: <u>1-meter</u> | |
|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|
| POINT ID | READING COUNTS/1MIN | POINT ID | READING COUNTS/1MIN | POINT ID | READING COUNTS/1MIN | POINT ID | READING COUNTS/1MIN |
| 145 | 1730 | 145 | 1980 | 169 | 3410 | 169 | 2650 |
| 146 | 1950 | 146 | 1750 | 170 | 3800 | 170 | 2690 |
| 147 | 3240 | 147 | 2080 | 171 | 1970 | 171 | 1940 |
| 148 | 1630 | 148 | 1670 | 172 | 2040 | 172 | 2040 |
| 149 | 1690 | 149 | 1740 | 173 | 2470 | 173 | 2290 |
| 150 | 1950 | 150 | 1910 | 174 | 2050 | 174 | 1920 |
| 151 | 2020 | 151 | 2010 | 175 | 1930 | 175 | 2010 |
| 152 | 2180 | 152 | 2400 | 176 | 3440 | 176 | 2940 |
| 153 | 3830 | 153 | 2680 | 177 | 3360 | 177 | 2980 |
| 154 | 2460 | 154 | 2730 | 178 | 2060 | 178 | 2080 |
| 155 | 1940 | 155 | 1940 | 179 | 1990 | 179 | 1990 |
| 156 | 2380 | 156 | 2260 | 180 | 2030 | 180 | 2120 |
| 157 | 2570 | 157 | 2500 | 181 | 2050 | 181 | 1970 |
| 158 | 2140 | 158 | 2130 | 182 | 3030 | 182 | 2560 |
| 159 | 2980 | 159 | 2430 | 183 | 3460 | 183 | 2970 |
| 160 | 1960 | 160 | 1970 | 184 | 3190 | 184 | 2830 |
| 161 | 2310 | 161 | 2120 | 185 | 2070 | 185 | 1940 |
| 162 | 2230 | 162 | 2100 | 186 | 2160 | 186 | 2070 |
| 163 | 2550 | 163 | 2720 | 187 | 2020 | 187 | 1980 |
| 164 | 2090 | 164 | 2040 | 188 | 2190 | 188 | 2179 |
| 165 | 2460 | 165 | 2350 | 189 | 2220 | 189 | 1990 |
| 166 | 2170 | 166 | 2100 | 190 | 2160 | 190 | 2220 |
| 167 | 2030 | 167 | 2120 | 191 | 2190 | 191 | 2160 |
| 168 | 1930 | 168 | 1930 | 192 | 2020 | 192 | 2020 |

REMARKS: _____

OUTDOOR GAMMA SCREENING SURVEY DATA SHEET

LOGGING CREW: Dave Murphy, Dennis Jones
Chris Workman, Terry Herman
Bob Greene

SHEET 5 OF 6 PAGE 5

DATE: 3-9-89

PROPERTY ID: 059

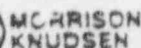
INSTRUMENT ID NO.: ESP-1 - #1709

BACKGROUND CALCULATION:

#1 _____ + #2 _____ + #3 _____ = _____ + 3 = _____ COUNTS/1MIN

| AREA: <u>Contact</u> | | AREA: <u>1-meter</u> | | AREA: <u>Contact</u> | | AREA: <u>1-meter</u> | |
|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|----------------------|---------------------|
| POINT ID | READING COUNTS/1MIN | POINT ID | READING COUNTS/1MIN | POINT ID | READING COUNTS/1MIN | POINT ID | READING COUNTS/1MIN |
| 193 | 2280 | 193 | 2070 | 217 | 2375 | 217 | 1792 |
| 194 | 2558 | 194 | 2633 | 218 | 2285 | 218 | 1743 |
| 195 | 2331 | 195 | 2294 | 219 | 2008 | 219 | 1660 |
| 196 | 2198 | 196 | 2148 | 220 | 1977 | 220 | 1692 |
| 197 | 2171 | 197 | 2075 | 221 | 1440 | 221 | 1380 |
| 198 | 2463 | 198 | 2490 | 222 | 2273 | 222 | 1950 |
| 199 | 2342 | 199 | 2211 | 223 | 1479 | 223 | 1479 |
| 200 | 2343 | 200 | 2229 | 224 | 2426 | 224 | 1940 |
| 201 | 2202 | 201 | 2236 | 225 | 1679 | 225 | 1498 |
| 202 | 2152 | 202 | 2027 | 226 | 2244 | 226 | 1727 |
| 203 | 2561 | 203 | 2238 | 227 | 1551 | 227 | 1487 |
| 204 | 2190 | 204 | 2132 | 228 | 2308 | 228 | 2250 |
| 205 | 1934 | 205 | 1826 | 229 | 2285 | 229 | 2342 |
| 206 | 1538 | 206 | 1515 | 230 | 2385 | 230 | 2349 |
| 207 | 2700 | 207 | 1959 | 231 | 2259 | 231 | 2394 |
| 208 | 2182 | 208 | 1872 | 232 | 2286 | 232 | 2461 |
| 209 | 1494 | 209 | 1371 | 233 | 2426 | 233 | 2387 |
| 210 | 2170 | 210 | 1958 | 234 | 2354 | 234 | 2288 |
| 211 | 1995 | 211 | 1729 | 235 | 2572 | 235 | 2439 |
| 212 | 1953 | 212 | 1790 | 236 | 2180 | 236 | 2286 |
| 213 | 1446 | 213 | 1469 | 237 | 2056 | 237 | 2207 |
| 214 | 1905 | 214 | 1797 | 238 | 2607 | 238 | 2395 |
| 215 | 1496 | 215 | 1464 | 239 | 2787 | 239 | 2475 |
| 216 | 2263 | 216 | 1727 | 240 | 2363 | 240 | 2426 |

REMARKS: _____



LOGGING CREW: Dan Murphy Dennis Swiss
Chris Workman Terry Herman
Joel Greene

SHEET 4 OF 6 PAGE 6

DATE: 3-9-99

PROPERTY ID: 059

INSTRUMENT ID NO.: ESP-1 - 1761

BACKGROUND CALCULATION:

#1 _____ + #2 _____ + #3 _____ = _____ - 3 = _____ COUNTS/1MIN

[illegible]

REMARKS

MR. PERCIVAL/CHEM. NUCLEAR
OPPOSED CRYSTAL SYSTEM RECORD

OCS #1 Serial #984369
OCS #2 Serial #283411

SITE NAME Durango
SITE AREA

| COMPLE DATE | SAMPLE NUMBER | SAMPLE LOCATION | DATE SAMPLED | DATE SEALED | SAS NO | FUNCTION NO. | | MASS | | R# 236 | OC | LABORATORY RESULT | | DEPTH | TECH | REMARKS |
|-------------|---------------|-----------------|--------------|-------------|--------|--------------|----------|-------|-----|--------|----|-------------------|--------|-------|------|-----------------------------------|
| | | | | | | INITIAL | SPECIAL | WET | DRY | | | R# 236 | R# 236 | | | |
| 1/4/89 | DU-SS-12445 | C59-C1 | 1/4/89 | | 1 | | 7.44 E 2 | 443.4 | | 1.69 | | | | ✓ | SS | N 49800 1900 C E 50240 1960 in |
| 1/4/89 | DU-SV | | | | | | | | | | | | | | | |
| 1/4/89 | DU-SS-12446 | C59-2 | 1/4/89 | | 1 | | 1.22 E 3 | 250 | | 4.21 | | | | ✓ | SS | N 49800 2010 C E 50270 1910 in |
| 1/4/89 | DU-SV | | | | | | | | | | | | | | | |
| 1/4/89 | DU-SS-12447 | C59-3 | 1/4/89 | | 1 | | 1.22 E 3 | 390.3 | | 3.12 | | | | ✓ | SS | N 49800 2100 C E 50300 2130 in |
| 1/4/89 | DU-SV | | | | | | | | | | | | | | | |
| 1/4/89 | DU-SS-12448 | C59-4 | 1/4/89 | | 1 | | 1.16 E 3 | 500.8 | | 2.32 | | | | ✓ | SS | N 49800 2130 C E 50330 2260 in |
| 1/4/89 | DU-SV | | | | | | | | | | | | | | | |
| 1/4/89 | DU-SS-12449 | C59-5 | 1/4/89 | | 2 | | 1.40 E 3 | 960.4 | | 3.50 | | | | ✓ | SS | N 49800 1780 C E 50360 1900 in |
| 1/4/89 | DU-SV | | | | | | | | | | | | | | | |
| 1/4/89 | DU-SS-12410 | C59-6 | 1/4/89 | | 2 | | 1.76 E 3 | 582.0 | | 3.32 | | | | ✓ | SS | N 49800 1540 C E 50390 1740 in |
| 1/11/89 | DU-SV | | | | | | | | | | | | | | | |
| 1/11/89 | DU-SS-12418 | C59-7 | 1/10/89 | | 1 | | 1.82 E 3 | 817.7 | | 2.22 | | | | ✓ | JS | N 49766 2070 C E 50433 1980 in |
| 1/11/89 | DU-SV | | | | | | | | | | | | | | | |
| 1/11/89 | DU-SS-12419 | C59-8 | 1/10/89 | | 1 | | 1.20 E 3 | 897.5 | | 1.33 | | | | ✓ | JS | N 49766 2000 C E 50400 1950 in |
| 1/11/89 | DU-SV | | | | | | | | | | | | | | | |
| 1/11/89 | DU-SS-12420 | C59-9 | 1/10/89 | | 1 | | 1.13 E 3 | 601.4 | | 1.88 | | | | ✓ | JS | N 49766 1960 C E 50366 1910 in |
| 1/11/89 | DU-SV | | | | | | | | | | | | | | | |
| 1/11/89 | DU-SS-12421 | C59-10 | 1/10/89 | | 2 | | 1.58 E 3 | 788.5 | | 2.20 | | | | ✓ | JS | N 49766 2030 C E 50333 1970 in |
| 1/11/89 | DU-SV | | | | | | | | | | | | | | | |
| 1/11/89 | DU-SS-12422 | C59-11 | 1/10/89 | | 2 | | 1.06 E 3 | 677.9 | | 1.56 | | | | ✓ | JS | N 49766 1950 C E 50300 1990 in |
| 1/11/89 | DU-SV | | | | | | | | | | | | | | | |
| 1/11/89 | DU-SS-12423 | C59-12 | 1/10/89 | | 2 | | 6.12 E 2 | 504.7 | | 1.23 | | | | ✓ | JS | N 49733 1990 C E 50366 1960 in |
| 1/11/89 | DU-SV | | | | | | | | | | | | | | | |

NOTE: All soil sample results are in pcf/cm

REVIEWED BY

Site Correction factor = 1.31(x) 1.749 (10/21/87)

VP Correction Factor = 1.15(x) 1.505 for
1000, 1.140 for

MDA-5pC1/E (2/3/88)
5-15pC1/E (7/3/88)

MR-BENGUSON/CHEM-NUCLEAR
OPPOSED CRISTAL SYSTEM RECORD

OCS #1 Serial #984369
OCS #2 Serial #285411

SITE NAME Durango
SITE AREA

| COUNT DATE | SAMPLE NUMBER | SAMPLE LOCATION | DATE SAMPLED | DATE SERIALIZED | TAG NO | FUNCTION NO. | MASS | No 234 | QC | LABORATORY RESULT | | METHOD | TECH | REMARKS |
|------------|---------------|-----------------|--------------|-----------------|--------|--------------|-------|--------|----|-------------------|--------|---------|--------|-----------------------------------|
| | | | | | | | | | | No 236 | No 238 | 455 cpm | 20 DAY | |
| 1-11-89 | DU-SS-12471 | Q59-13 | 1-10-89 | | 1 | 4.65E2 | 53.0 | 570.8 | | | | ✓ | J.S. | N-49733 1960 C E-50333 1970 IN |
| 1-11-89 | DU-SV | | | | | | | | | | | | | |
| 1-11-89 | DU-SS-12471 | Q59-14 | 1-10-89 | | 1 | 1.31E3 | 718.1 | 1.77 | | | | ✓ | J.S. | N-49733 1890 C E-50300 2110 IN |
| 1-11-89 | DU-SV | | | | | | | | | | | | | |
| 1-11-89 | DU-SS-12471 | Q59-15 | 1-10-89 | | 1 | 9.97E2 | 572.5 | 1.84 | | | | ✓ | J.S. | N-49700 2060 C E-50300 2110 IN |
| 1-11-89 | DU-SV | | | | | | | | | | | | | |
| 1-11-89 | DU-SS-12471 | Q59-16 | 1-10-89 | | 2 | 6.95E2 | 571.2 | 1.20 | | | | ✓ | J.S. | N-49700 2220 C E-50333 2020 IN |
| 1-11-89 | DU-SV | | | | | | | | | | | | | |
| 1-11-89 | DU-SS-12471 | Q59-17 | 1-10-89 | | 2 | 8.68E2 | 560.1 | 1.71 | | | | ✓ | J.S. | N-49700 2130 C E-50336 2100 IN |
| 1-11-89 | DU-SV | | | | | | | | | | | | | |
| 1-16-89 | DU-SS-12445 | Q59-18 | 1-16-89 | | 1 | 1.16E3 | 715.0 | 1.87 | | | | ✓ | J.S. | N-49666 2500 C E-50300 2360 IN |
| 1-16-89 | DU-SV | | | | | | | | | | | | | |
| 1-16-89 | DU-SS-12446 | Q59-19 | 1-16-89 | | 1 | 1.07E3 | 626.0 | 1.71 | | | | ✓ | J.S. | N-49666 2300 C E-50333 2100 IN |
| 1-16-89 | DU-SV | | | | | | | | | | | | | |
| 1-17-89 | DU-SS-12447 | Q59-20 | 1-17-89 | | 1 | 1.05E3 | 625.5 | 1.68 | | | | ✓ | SS | N-49666 2100 C E-50346 2100 IN |
| 1-17-89 | DU-SV | | | | | | | | | | | | | |
| 1-17-89 | DU-SS-12447 | Q59-21 | 1-17-89 | | 1 | 1.47E3 | 579.0 | 2.78 | | | | ✓ | SS | N-49633 2200 C E-50300 2000 IN |
| 1-17-89 | DU-SV | | | | | | | | | | | | | |
| 1-17-89 | DU-SS-12447 | Q59-22 | 1-17-89 | | 1 | 2.55E3 | 955.5 | 4.51 | | | | ✓ | SS | N-49633 2100 IN E-50333 2000 C |
| 1-17-89 | DU-SV | | | | | | | | | | | | | |
| 1-17-89 | DU-SS-12447 | Q59-23 | 1-16-89 | | 1 | 2.47E3 | 571.0 | 4.33 | | | | ✓ | SS | N-49633 2100 IN E-50346 2000 C |
| 1-17-89 | DU-SV | | | | | | | | | | | | | |
| 1-17-89 | DU-SS-12447 | Q59-24 | 1-16-89 | | 2 | 1.92E3 | 628.0 | 3.06 | | | | ✓ | SS | N-49600 2100 C E-50300 2100 IN |
| 1-17-89 | DU-SV | | | | | | | | | | | | | |

NOTE: All cell sample results are in pCi/gm

REVIEWED BY

DATE: 1-17-89

DR-FERGUSON/CENT-H-NUCLEAR
OPPOSED CRYSTAL SYSTEM RECORD

OCS #1 Serial #984369
OCS #2 Serial #285411

SITE NAME Durango

SITE AREA _____

| COUNT DATE | SAMPLE NUMBER | SAMPLE LOCATION | DATE SAMPLED | DATE SEALED | PAGE NO | FUNCTION NO. | WASS | Pa 336 | QC | LABORATORY RESULT | DEPTH | TECH | REMARKS |
|------------|---------------|-----------------|--------------|-------------|---------|--------------|-------|---------|--------|-------------------|--------|--------|---------------------------------|
| INITIAL | | | | | INITIAL | INITIAL | WET | INITIAL | QC | | | | |
| 20 DAY | | | | | 20 DAY | 20 DAY | DRY | 20 DAY | 20 DAY | No 336 | Yh 336 | 20 DAY | |
| 1-17-89 | DU-SS-12452 | 059-25 | 1-16-89 | | 2 | 1.59E3 | 790.5 | 2.01 | | | | ✓ SS | N-50560 CPTM 18% C. 1721m. |
| | DU-SV | | | | | | | | | | | | |
| 1-17-89 | DU-SS-12453 | 059-26 | 1-16-89 | | 2 | 9.70E2 | 568.5 | 1.71 | | | | ✓ SS | N-49600 AVE CPTM 2100 in 2300 C |
| | DU-SV | | | | | | | | | | | | |
| 1-17-89 | DU-SS-12454 | 059-27 | 1-17-89 | | 1 | 8.89E2 | 559.0 | 1.59 | | | | ✓ SS | N-49666 AVE CPTM 1760 in 1770 C |
| | DU-SV | | | | | | | | | | | | |
| 1-17-89 | DU-SS-12455 | 059-28 | 1-17-89 | | 1 | 8.64E2 | 608.5 | 1.43 | | | | ✓ SS | N-49733 AVE CPTM 1960 in 1940 C |
| | DU-SV | | | | | | | | | | | | |
| 1-17-89 | DU-SS-12456 | 059-29 | 1-17-89 | | 1 | 1.40E3 | 586.6 | 2.39 | | | | ✓ SS | N-49833 AVE CPTM 2190 in 2170 C |
| | DU-SV | | | | | | | | | | | | |
| 1-17-89 | DU-SS-12457 | 059-30 | 1-17-89 | | 1 | 2.63E3 | 663.4 | 3.96 | | | | ✓ SS | N-49733 AVE CPTM 2670 in 2430 C |
| | DU-SV | | | | | | | | | | | | |
| 1-17-89 | DU-SS-12458 | 059-31 | 1-17-89 | | 1 | 2.15E3 | 605.4 | 3.55 | | | | ✓ SS | N-49700 AVE CPTM 2400 C 2200 in |
| | DU-SV | | | | | | | | | | | | |
| 1-17-89 | DU-SS-12459 | 059-32 | 1-17-89 | | 1 | 1.22E3 | 679.0 | 1.88 | | | | ✓ SS | N-49700 AVE CPTM 2090 in 2090 C |
| | DU-SV | | | | | | | | | | | | |
| 1-17-89 | DU-SS-12460 | 059-33 | 1-17-89 | | 1 | 9.51E2 | 645.3 | 1.47 | | | | ✓ SS | N-49700 AVE CPTM 2090 in 2170 C |
| | DU-SV | | | | | | | | | | | | |
| 1-17-89 | DU-SS-12461 | 059-34 | 1-17-89 | | 1 | 1.64E3 | 586.0 | 2.72 | | | | ✓ SS | N-49666 AVE CPTM 2440 in 2620 C |
| | DU-SV | | | | | | | | | | | | |
| 1-17-89 | DU-SS-12462 | 059-35 | 1-17-89 | | 1 | 1.53E3 | 634.0 | 2.41 | | | | ✓ SS | N-49666 AVE CPTM 2310 in 2320 C |
| | DU-SV | | | | | | | | | | | | |
| 1-17-89 | DU-SS-12463 | 059-36 | 1-17-89 | | 2 | 1.43E3 | 559.0 | 1.66 | | | | ✓ SS | N-49666 AVE CPTM 2120 in 2030 C |
| | DU-SV | | | | | | | | | | | | |

NOTE: All soil sample results are in pci/gm

REVIEWED BY _____

Site Correction Factor = 1.31(x)1.749 (10/21/87) VP Correction Factor = 1.35(x)+.505 for IMA-5pC1/p (2/3/88)
1.00(x)-1.40 for S-15pC1/p (2/3/88)

MR-FERGUSON/CHH-NUCLEAR

OCS #1 Serial #984369
OCS #2 Serial #285411

OPPOSED CRISTAL SYSTEM RECORD

SITE NAME Durango

SITE AREA

| COUNT DATE INITIAL 30 DAY | SAMPLE NUMBER | SAMPLE LOCATION | DATE SAMPLED | DATE SEALED | TAD NO INITIAL 30 DAY | FUNCTION NO. INITIAL 30 DAY | MASS WGT DAY | PS 226 INITIAL 30 DAY | QC SPRIF | LABORATORY RESULT | | SECT INITIAL 30 DAY | REMARKS |
|---------------------------------|------------------|--------------------|-----------------|----------------|-----------------------------|-----------------------------------|--------------------|-----------------------------|-------------|----------------------|--------|---------------------------|---|
| | | | | | | | | | | No 226 | No 226 | | |
| 1-17-89 | DU-SV-12341 | 059-37 | 1-17-89 | | 2 | 1.8RE3 | 671.0 | 2.79 | | | | SS | N-49633 AVE CPM 2230 1m E-50400 1500 C |
| 1-17-89 | DU-SV-12342 | 059-38 | 1-17-89 | | 2 | 1.8RE3 | 641.0 | 1.84 | | | | SS | N-49633 AVE CPM 2046 C E-50433 2150 1m |
| 1-17-89 | DU-SV-12343 | 059-39 | 1-17-89 | | 2 | 1.8RE3 | 676.6 | 2.24 | | | | SS | N-49633 AVE CPM 2160 1m E-50466 1090 C |
| 1-17-89 | DU-SV-12344 | 059-40 | 1-17-89 | | 2 | 1.8RE3 | 468.0 | 1.39 | | | | SS | N-49633 AVE CPM 2036 1m E-50480 1080 C |
| 1-17-89 | DU-SV-12345 | 059-41 | 1-17-89 | | 2 | 1.8RE3 | 550.0 | 1.66 | | | | SS | N-49633 AVE CPM 2070 1m E-50433 1970 C |
| 1-17-89 | DU-SV-12346 | 059-42 | 1-17-89 | | 2 | 5.91E2 | 472.5 | 1.25 | | | | SS | N-49633 AVE CPM 2160 1m E-50466 1570 C |
| 1-17-89 | DU-SV-12347 | 059-43 | 1-17-89 | | 1 | 2.86E3 | 761.8 | 3.88 | | | | SS | N-50533 AVE CPM 1100 1m E-50480 1080 C |
| 1-17-89 | DU-SV-12348 | 059-44 | 1-17-89 | | 2 | 1.84E3 | 754.0 | 2.74 | | | | JS | N-50533 AVE CPM 1140 C E-50480 1080 C |
| 1-17-89 | DU-SV-12349 | 059-45 | 1-17-89 | | 1 | 3.62E3 | 766.5 | 4.72 | | | | JS | N-50466 AVE CPM 1730 C E-50480 1460 1m |
| 1-17-89 | DU-SV-12350 | 059-46 | 1-17-89 | | 2 | 4.20E3 | 797.8 | 5.26 | | | | JS | N-50433 AVE CPM 1560 1m E-50480 1460 1m |
| 1-17-89 | DU-SV-12351 | 059-47 | 1-17-89 | | 1 | 3.89E3 | 746.0 | 5.33 | | | | JS | N-50400 AVE CPM 1650 1m E-50480 1430 C |
| 1-17-89 | DU-SV-12352 | 059-48 | 1-17-89 | | 1 | 1.72E3 | 717.6 | 3.60 | | | | JS | N-50433 AVE CPM 2120 |

NOTE: All cell sample results are in pCi/gm

REVIEWED BY

DATE: 1-25-89 TIME: 5:05 PM

1-25-89

1-25-89

1-25-89

HR-FENCISION/CHEN-NUCLEAR

OCS #1 Serial #984369
OCS #2 Serial #285411

EXPOSED CRYSTAL SYSTEM RECORD

Site Name Durango

Site Area

| COUNT DATE | SAMPLE NUMBER | SAMPLE LOCATION | DATE SHIPPED | DATE SEALED | TAB ID | FUNCTION NO. | | MASS | No. 215 | QC | LABORATORY RESULT | | TECH | REMARKS |
|------------|----------------------|-----------------|--------------|-------------|--------|--------------|--------|---------|---------|----|-------------------|--------|------|---------------------------------------|
| | | | | | | INITIAL | 20 DAY | WET DRY | | | No. 226 | 20 DAY | | |
| 1-21-89 | DU-55-12510 DU-SV | 059-49 | 1-21-89 | | 1 | 7.50E2 | | 386.2 | 2.10 | | | | JS | N 50400 E 50033 AVECMA 1710c |
| 1-21-89 | DU-55-12511 DU-SV | 059-50 | 1-21-89 | | 1 | 1.11E3 | | 441.6 | 2.74 | | | | JS | N 50400 E 50066 AVECMA 1290c |
| 1-21-89 | DU-55-12512 DU-SV | 059-51 | 1-21-89 | | 1 | 3.04E2 | | 328.1 | 5.00A | | | | JS | N 50366 E 50066 AVECMA 1350c |
| 1-21-89 | DU-55-12513 DU-SV | 059-52 | 1-21-89 | | 1 | 6.89E2 | | 328.4 | 2.10 | | | | JS | N 50366 E 50033 AVECMA 1420c |
| 1-21-89 | DU-55-12514 DU-SV | 059-53 | 1-21-89 | | 1 | 3.67E2 | | 395.5 | 5.00A | | | | JS | N 50366 E 50000 AVECMA 1860c |
| 1-21-89 | DU-55-12515 DU-SV | 059-54 | 1-21-89 | | 1 | 2.60E3 | | 449.3 | 5.80 | | | | JS | N 50366 E 49966 AVECMA 1710c |
| 1-21-89 | DU-55-12516 DU-SV | 059-55 | 1-21-89 | | 1 | 1.33E3 | | 324.8 | 4.10 | | | | JS | N 50333 E 50066 AVECMA 1410c |
| 1-21-89 | DU-55-12517 DU-SV | 059-56 | 1-21-89 | | 1 | 9.75E2 | | 382.2 | 2.55 | | | | JS | N 50333 E 50033 AVECMA 2470c |
| 1-21-89 | DU-55-12518 DU-SV | 059-56 | 1-21-89 | | 1 | 2.05E3 | | 514.1 | 4.00 | | | | JS | N 50333 E 50066 AVECMA 1670c |
| 1-21-89 | DU-55-12519 DU-SV | 059-57 | 1-21-89 | | 2 | 1.39E3 | | 313.1 | 4.44 | | | | JS | N 50333 E 49966 AVECMA 1060c |
| 1-21-89 | DU-55-12520 DU-SV | 059-58 | 1-21-89 | | 2 | 1.82E3 | | 298.6 | 6.10 | | | | JS | N 50333 E 49933 AVECMA 2160c |
| 1-21-89 | DU-55-12521 DU-SV | 059-59 | 1-21-89 | | 2 | 1.78E3 | | 333.9 | 5.33 | | | | JS | N 50333 E 49900 AVECMA 2260c |

Notes: All cell sample results are in pCi/gm

REVIEWED BY

1-25-89 11:50 AM for HVA-SPEC/E (7/7/89)

MR. FERGUSON/CHEM-NUCLEAR
OPPOSED CRYSTAL SYSTEM RECORD

OCS #1 Serial #984369
OCS #2 Serial #283411

SITE NAME Durango
SITE AREA _____

| COUNT DATE INITIAL 30 DAY | SAMPLE NUMBER | SAMPLE LOCATION | DATE SAMPLED | DATE SEALED | TAG NO INITIAL 30 DAY | FUNCTION NO. INITIAL 30 DAY | MASS NET DRY | No. 374 INITIAL 30 DAY | QC SURVEY | LABORATORY RESULTS | | DEPTH 450 cm 135 cm | TECH INITIAL 30 DAY | REMARKS |
|---------------------------------|----------------------|--------------------|-----------------|----------------|-----------------------------|-----------------------------------|--------------------|------------------------------|--------------|-----------------------|---------|---------------------------|---------------------------|--------------------------------|
| | | | | | | | | | | No. 376 | No. 378 | | | |
| 1-23-89 | DU-SX-12552 DU-SV | 059-61 | 1-23-89 | | 2 | 1.82E3 | 424.0 | 4.30 | | | | ✓ | JJ | N-50300 AVECM E-50000 M10C |
| 1-23-89 | DU-SX-12541 DU-SV | 059-62 | 1-23-89 | | 2 | 1.36E3 | 405.8 | 3.25 | | | | ✓ | JJ | N-50300 AVECM E-50066 N50C |
| 1-23-89 | DU-SX-12547 DU-SV | 059-63 | 1-23-89 | | 2 | 2.00E3 | 446.0 | 4.81 | | | | ✓ | JJ | N-50300 AVECM E-30033 N70C |
| 1-23-89 | DU-SX-12545 DU-SV | 059-64 | 1-23-89 | | 2 | 1.07E3 | 446.3 | 1.91 | | | | ✓ | JJ | N-50300 AVECM E-50000 M10C |
| 1-23-89 | DU-SX-12546 DU-SV | 059-65 | 1-23-89 | | 2 | 1.01E3 | 424.4 | 2.28 | | | | ✓ | JJ | N-50300 AVECM E-49966 2260C |
| 1-23-89 | DU-SX-12547 DU-SV | 059-66 | 1-23-89 | | 2 | 9.64E2 | 311.0 | 3.10 | | | | ✓ | JJ | N-50300 AVECM E-49933 2000C |
| 1-23-89 | DU-SX-12548 DU-SV | 059-67 | 1-23-89 | | 2 | 1.15E3 | 635.0 | 1.81 | | | | ✓ | JJ | N-50300 AVECM E-49900 2540C |
| 1-23-89 | DU-SX-12549 DU-SV | 059-68 | 1-23-89 | | 1 | 1.01E3 | 328.0 | 4.42 | | | | ✓ | JJ | N-50166 CPTM E-49900 2000C |
| 1-23-89 | DU-SX-12550 DU-SV | 059-69 | 1-23-89 | | 1 | 2.47E3 | 480.6 | 5.14 | | | | ✓ | JJ | N-50160 CPTM E-49966 1900C |
| 1-23-89 | DU-SX-12551 DU-SV | 059-70 | 1-23-89 | | 1 | 2.83E3 | 626.4 | 4.52 | | | | ✓ | JJ | N-50166 CPTM E-50000 1800C |
| 1-23-89 | DU-SX-12552 DU-SV | 059-71 | 1-23-89 | | 1 | 2.84E3 | 797.0 | 3.55 | | | | ✓ | JJ | N-50166 CPTM E-50033 2170C |
| 1-23-89 | DU-SX-12553 DU-SV | 059-72 | 1-23-89 | | 1 | 1.69E3 | 485.5 | 3.48 | | | | ✓ | JJ | N-50166 CPTM E-50066 1910C |

NOTE: All cell sample results are in pCi/gm

REVIEWED BY _____

Site Correction factor = 1.31(x)+.749 (10/21/87) VP Correction Factor = 1.35(x)+.505 for MMA-5pCi/g (2/3/88)
C-50000 (2/3/88)

DR-FERGUSON/CHEM-NUCLEAR
OPPOSED CRISTAL SYSTEM RECORD

OCS #1 Serial #984369
OCS #2 Serial #285411

SITE NAME Durango
SITE AREA _____

| COUNT DATE | SAMPLE NUMBER | SAMPLE LOCATION | DATE SIFTED | DATE SEALED | TAG NO | FUNCTION NO. | MASS | No 226 | QC | LABORATORY RESULT | | DEPTH | TECH | REMARKS |
|------------|---------------|-----------------|-------------|-------------|---------|--------------|-------|---------|-------|-------------------|--------|-------|---------|--------------------------------|
| INITIAL | | | | | INITIAL | INITIAL | WET | INITIAL | | No 226 | Th 229 | 15 cm | INITIAL | |
| 20 DAY | | | | | 20 DAY | 20 DAY | DRY | 20 DAY | SWIFT | | | 15 cm | 20 DAY | |
| 1-24-89 | DU-SS-12559 | 059-73 | 1-23-89 | | 1 | 2.52E3 | 642.6 | 3.92 | | | | ✓ | SS | N-50266 CPTM E-50100 1700C. |
| | DU-SV | | | | | | | | | | | | | 17301m |
| 1-24-89 | DU-SS-12565 | 059-74 | 1-23-89 | | 1 | 1.87E3 | 639.0 | 2.93 | | | | ✓ | SS | N-50266 CPTM E-50133 1500C. |
| | DU-SV | | | | | | | | | | | | | 15701m |
| 1-24-89 | DU-SS-12556 | 059-75 | 1-23-89 | | 1 | 1.08E3 | 802.0 | 1.34 | | | | ✓ | SS | N-50233 CPTM E-50133 1700C. |
| | DU-SV | | | | | | | | | | | | | 17401m |
| 1-24-89 | DU-SS-12557 | 059-76 | 1-23-89 | | 1 | 1.08E3 | 572.4 | 1.89 | | | | ✓ | SS | N-50233 CPTM E-50100 1500C. |
| | DU-SV | | | | | | | | | | | | | 16301m |
| 1-24-89 | DU-SS-12558 | 059-77 | 1-23-89 | | 1 | 3.21E3 | 748.8 | 4.29 | | | | ✓ | SS | N-50233 CPTM E-50066 1700C. |
| | DU-SV | | | | | | | | | | | | | 17301m |
| 1-24-89 | DU-SS-12559 | 059-78 | 1-23-89 | | 1 | 3.71E3 | 701.6 | 5.29 | | | | ✓ | SS | N-50233 CPTM E-50033 1700C. |
| | DU-SV | | | | | | | | | | | | | 17601m |
| 1-24-89 | DU-SS-12560 | 059-79 | 1-23-89 | | 1 | 1.64E3 | 735.6 | 2.17 | | | | ✓ | SS | N-50233 CPTM E-30000 1700C. |
| | DU-SV | | | | | | | | | | | | | 17301m |
| 1-24-89 | DU-SS-12561 | 059-80 | 1-23-89 | | 2 | 1.13E3 | 740.0 | 1.53 | | | | ✓ | SS | N-50200 CPTM E-50166 1380C. |
| | DU-SV | | | | | | | | | | | | | 15201m |
| 1-24-89 | DU-SS-12562 | 059-81 | 1-23-89 | | 2 | 3.09E3 | 574.6 | 5.38 | | | | ✓ | SS | N-50200 CPTM E-50133 1500C. |
| | DU-SV | | | | | | | | | | | | | 16001m |
| 1-24-89 | DU-SS-12563 | 059-82 | 1-23-89 | | 2 | 2.52E3 | 684.0 | 3.68 | | | | ✓ | SS | N-50200 CPTM E-50100 1500C. |
| | DU-SV | | | | | | | | | | | | | 17601m |
| 1-24-89 | DU-SS-12564 | 059-83 | 1-23-89 | | 2 | 2.46E3 | 563.5 | 4.36 | | | | ✓ | SS | N-50200 CPTM E-50066 2150C. |
| | DU-SV | | | | | | | | | | | | | 18101m |
| 1-24-89 | DU-SS-12565 | 059-84 | 1-23-89 | | 2 | 1.01E3 | 533.3 | 1.89 | | | | ✓ | SS | N-50200 CPTM E-50033 1710C. |
| | DU-SV | | | | | | | | | | | | | 16601m |

NOTE: All soil sample results are in pCi/gc

REVIEWED BY _____

Site Correction Factor = $1.31(x) + .749$ (10/21/P1) VP Correction Factor = $1.35(x) + .505$ for IMA-SpCl/g (2/7/RR)
1.00 for S-15SpCl/g (2/7/RR)

MR. PENCUSON/CHEM-NUCLEAR
OFFSHORE CRISTAL SYSTEM RECORD

OCS #1 Serial #984369
OCS #2 Serial #283411

SITE NAME Durango

SITE AREA

| COMP DATE INITIAL 30 DAY | SAMPLE NUMBER | SAMPLE LOCATION | DATE SAMPLED | DATE SEALED | TAG NO INITIAL 30 DAY | FUNCTION NO. INITIAL 30 DAY | MASS WET DRY | No 234 INITIAL 30 DAY | QC COUNT | LABORATORY RESULT | | REFIN CIS CO CIS CO | TECH INITIAL 30 DAY | REMARKS |
|--------------------------------|----------------------|--------------------|-----------------|----------------|-----------------------------|-----------------------------------|--------------------|-----------------------------|-------------|----------------------|--------|---------------------------|---------------------------|---|
| | | | | | | | | | | No 236 | No 239 | | | |
| 1-24-89 | DU-S5-12566 DU-SV | Q59-85 | 1-23-89 | | 2 | 3.02E3 | 708.5 | 4.25 | | | | ✓ | SS | N 50100 E 50066 CPTM 1720C. K2014 |
| 1-24-89 | DU-S5-12567 DU-SV | Q59-86 | 1-23-89 | | 2 | 3.47E3 | 715.5 | 4.59 | | | | ✓ | SS | N 50166 E 50066 CPTM 1590C. 19014 |
| 1-24-89 | DU-S5-12568 DU-SV | Q59-87 | 1-23-89 | | 2 | 3.08E3 | 677.3 | 4.55 | | | | ✓ | SS | N 50066 E 50133 CPTM 1100C. 17014 |
| 1-24-89 | DU-S5-12569 DU-SV | Q59-88 | 1-23-89 | | 1 | 1.97E3 | 582.6 | 3.38 | | | | ✓ | SS | N 50066 E 50100 CPTM 2070 19004 |
| 1-24-89 | DU-S5-12570 DU-SV | Q59-89 | 1-23-89 | | 1 | 4.77E2 | 630.0 | 1.50 | | | | ✓ | SS | N 50166 E 50066 CPTM 1930C. 18604 |
| 1-24-89 | DU-S5-12571 DU-SV | Q59-90 | 1-23-89 | | 1 | 2.47E3 | 607.6 | 4.81 | | | | ✓ | SS | N 50166 E 50033 CPTM 2070C. 18904 |
| 1-24-89 | DU-S5-12572 DU-SV | Q59-91 | 1-23-89 | | 1 | 3.51E3 | 660.4 | 5.32 | | | | ✓ | SS | N 50166 E 50000 CPTM 1890C. 17904 |
| 1-25-89 | DU-S5-12573 DU-SV | Q59-92 | 1-24-89 | | 1 | 2.03E3 | 525.0 | 3.87 | | | | ✓ | SS | N 50133 E 50166 CPTM 2120C. 18204 |
| 1-25-89 | DU-S5-12574 DU-SV | Q59-93 | 1-24-89 | | 1 | 9.14E2 | 595.0 | 1.78 | | | | ✓ | SS | N 50133 E 50133 CPTM 240C. 18004 |
| 1-25-89 | DU-S5-12575 DU-SV | Q59-94 | 1-24-89 | | 1 | 2.10E3 | 368.0 | 5.71 | | | | ✓ | SS | N 50033 E 50100 CPTM 2130C. 18204 |
| 1-25-89 | DU-S5-12576 DU-SV | Q59-95 | 1-24-89 | | 1 | 4.16E3 | 540.4 | 7.70 | | | | ✓ | SS | N 50133 E 50066 CPTM 2510C. 19004 |
| 1-25-89 | DU-S5-12577 DU-SV | Q59-96 | 1-24-89 | | 1 | 3.61E3 | 440.0 | 8.34 | | | | ✓ | SS | N 50133 E 50033 CPTM 1650C. 19014 |

NOTE: All cell sample results are in PC/eq

REVISED BY

Site Correction factor = 1.31(x) + 1.769 (10/21/87)

VP Correction Factor = 1.75(x) + 3.505 for 1MA-5PC1/E (2/3/88)

MR. FERGUSON/CHEM-NUCLEAR
OPPOSED CRYSTAL SYSTEM RECORD

OCS #1 Serial #984369
OCS #2 Serial #285411

SITE NAME Durango
SITE AREA _____

| COUNT DATE | SAMPLE | SAMPLE | DATE | DATE | TAG NO | FUNCTION NO. | MASS | Pa 234 | OC | LABORATORY | | DEPTH | TECH | REMARKS |
|------------|-------------|----------|---------|--------|---------|--------------|-------|---------|------|------------|--------|-------|---------|---|
| INITIAL | NUMBER | LOCATION | SAMPLED | SEALED | INITIAL | INITIAL | WET | INITIAL | UNIT | No 234 | Th 234 | 15 cm | INITIAL | |
| 20 DAY | | | | | 20 DAY | 20 DAY | DRY | 20 DAY | | | | 15 cm | 20 DAY | |
| 1-25-89 | DU-SS-12578 | | | | 1 | 1.67E3 | 358.0 | 4.70 | | | | ✓ | SS | N 50133 S 50000 S 2960 cpm 1m=1870 " |
| | DU-SV | 059-97 | 1-24-89 | | | | | | | | | | | |
| 1-25-89 | DU-SS-12579 | | | | 1 | 3.25E3 | 420.0 | 7.79 | | | | ✓ | SS | N 50100 E 50166 S 2960 cpm 1m=1870 " |
| | DU-SV | 059-98 | 1-24-89 | | | | | | | | | | | |
| 1-25-89 | DU-SS-12580 | | | | 1 | 4.91E3 | 643.0 | 7.64 | | | | ✓ | SS | N 50100 E 50133 S 2250 cpm 1m=1900 " |
| | DU-SV | 059-99 | 1-24-89 | | | | | | | | | | | |
| 1-25-89 | DU-SS-12581 | | | | 1 | 3.92E3 | 647.3 | 6.06 | | | | ✓ | SS | N 50100 E 50100 S 2250 cpm 1m=1970 " |
| | DU-SV | 059-100 | 1-24-89 | | | | | | | | | | | |
| 1-25-89 | DU-SS-12582 | | | | 1 | 1.34E3 | 441.3 | 3.04 | | | | ✓ | SS | N 50100 E 50066 S 1910 cpm 1m=1870 " |
| | DU-SV | 059-101 | 1-24-89 | | | | | | | | | | | |
| 1-25-89 | DU-SS-12583 | | | | 1 | 2.69E3 | 373.3 | 7.21 | | | | ✓ | SS | N 50100 E 50066 S 3060 cpm 1m=2190 " |
| | DU-SV | 059-102 | 1-24-89 | | | | | | | | | | | |
| 1-25-89 | DU-SS-12584 | | | | 1 | 6.70E2 | 408.4 | 1.64 | | | | ✓ | SS | N 50100 E 50000 S 2380 cpm 1m=1890 " |
| | DU-SV | 059-103 | 1-24-89 | | | | | | | | | | | |
| 1-25-89 | DU-SS-12585 | | | | 1 | 1.8E3 | 436.0 | 4.27 | | | | ✓ | SS | N 50066 E 50166 S 2290 cpm 1m=1880 " |
| | DU-SV | 059-104 | 1-24-89 | | | | | | | | | | | |
| 1-25-89 | DU-SS-12586 | | | | 1 | 9.89E2 | 484.0 | 2.04 | | | | ✓ | SS | N 50066 E 50133 S 1850 cpm 1m=1620 " |
| | DU-SV | 059-105 | 1-24-89 | | | | | | | | | | | |
| 1-25-89 | DU-SS-12587 | | | | 1 | 2.04E3 | 522.0 | 3.91 | | | | ✓ | SS | N 50066 E 50100 S 1740 cpm 1m=1640 " |
| | DU-SV | 059-106 | 1-24-89 | | | | | | | | | | | |
| 1-25-89 | DU-SS-12588 | | | | 2 | 1.68E3 | 456.0 | 3.68 | | | | ✓ | SS | N 50066 E 50066 S 1930 cpm 1m=1810 " |
| | DU-SV | 059-107 | 1-24-89 | | | | | | | | | | | |
| 1-25-89 | DU-SS-12589 | | | | 2 | 2.12E3 | 415.0 | 5.11 | | | | ✓ | SS | N 50066 E 50033 S 2840 cpm 1m=2810 " |
| | DU-SV | 059-108 | 1-24-89 | | | | | | | | | | | |

NOTE: All soil sample results are in pCi/gm

REVIEWED BY _____

Site Correction Factor = 1.31(x) ± 7.49 (10/21/87)

VP Correction Factor = 1.75(x) ± 5.05 for
1 on 1 - 1.40 for

MAA-SpCi/g (2/3/88)
S-15uCi/g (2/3/88)

DK-FERGUSON/CHFN-NUCLEAR
OPPOSED CRISTAL SYSTEM RECORD

OCS #1 Serial #984369
OCS #2 Serial #283411

SITE NAME Durango
SITE AREA _____

| COUNT DATE | SAMPLE NUMBER | SAMPLE LOCATION | DATE SNIFFED | DATE SCALED | TAG NO INITIAL 20 DAY | FUNCTION NO. INITIAL 20 DAY | MASS WET DRY | Pa 226 INITIAL 20 DAY | GC COUNT | LABORATORY RESULT Pa 226 Th 230 | DEPTH 15 cm 15 cm | RECD INITIAL 20 DAY | REMARKS |
|------------|---------------|-----------------|--------------|-------------|-----------------------------|-----------------------------------|--------------------|-----------------------------|-------------|---------------------------------------|-------------------------|---------------------------|--|
| 1/25/89 | DU-SS-12590 | C59-109 | 1/24/89 | | 2 | 1.64E3 | 308.2 | 5.32 | | | ✓ | SS | N50066 E50000 S=2520 CPM IM=2140 CPM |
| | DU-SV | | | | | | | | | | | | |
| 1/25/89 | DU-SS-12591 | C59-110 | 1/24/89 | | 2 | 4.84E2 | 314.0 | 1.54 | | | ✓ | SS | N50033 CPM E50166 S=1990 IM=2000 |
| | DU-SV | | | | | | | | | | | | |
| 2/1/89 | DU-SS-12623 | C59-111 | 2/1/89 | | 1 | 8.52E2 | 417.7 | 2.04 | | | ✓ | JS | N50033 CPM E50133 S=1840 IM=1790 |
| | DU-SV | | | | | | | | | | | | |
| 1/25/89 | DU-SS-12592 | C59-112 | 1/24/89 | | 2 | 1.12E3 | 347.0 | 3.23 | | | ✓ | SS | N50033 CPM E50100 S=1920 IM=2070 |
| | DU-SV | | | | | | | | | | | | |
| 1/25/89 | DU-SS-12593 | C59-113 | 1/24/89 | | 2 | 1.1E2 | 323.0 | 1.14 | | | ✓ | SS | N50033 CPM E50066 S=2240 IM=1970 |
| | DU-SV | | | | | | | | | | | | |
| 1/25/89 | DU-SS-12594 | C59-114 | 1/24/89 | | 2 | 2.1E3 | 507.3 | 5.71 | | | ✓ | SS | N50033 CPM E50033 S=2250 IM=1830 |
| | DU-SV | | | | | | | | | | | | |
| 1/25/89 | DU-SS-12595 | C59-115 | 1/24/89 | | 2 | 1.00E3 | 296.0 | 3.40 | | | ✓ | SS | N50033 CPM E50000 S=1980 IM=1760 |
| | DU-SV | | | | | | | | | | | | |
| 1/25/89 | DU-SS-12596 | C59-116 | 1/24/89 | | 2 | 1.58E3 | 291.0 | 5.43 | | | ✓ | SS | N50000 CPM E50166 S=2260 IM=1760 |
| | DU-SV | | | | | | | | | | | | |
| 1/25/89 | DU-SS-12597 | C59-117 | 1/24/89 | | 2 | 1.56E3 | 485.0 | 3.22 | | | ✓ | SS | N50000 CPM E50133 S=2160 IM=1950 |
| | DU-SV | | | | | | | | | | | | |
| 1/26/89 | DU-SS-12598 | C59-118 | 1/24/89 | | 2 | 1.37E3 | 318.0 | 4.31 | | | ✓ | SS | N50000 CPM E50100 S=2540 IM=1910 |
| | DU-SV | | | | | | | | | | | | |
| 1/25/89 | DU-SS-12599 | C59-119 | 1/24/89 | | 2 | 2.33E3 | 340.6 | 6.84 | | | ✓ | SS | N60000 CPM E50066 S=2580 IM=1950 |
| | DU-SV | | | | | | | | | | | | |
| 1/25/89 | DU-SS-12600 | C59-120 | 1/24/89 | | 2 | 4.68E2 | 322.0 | 1.45 | | | ✓ | SS | N50000 CPM E50033 S=2300 IM=1560 |
| | DU-SV | | | | | | | | | | | | |

NOTE: All soil sample results are in pCi/gm

REVIEWED BY _____

Site Correction Factor = 1.31(x) + 1.749 (10/21/87) VP Correction Factor = 1.35(x) + 1.505 for IMA-5pCi/g (2/3/88)

MR-STACSON/CHEM-NUCLEAR
OPPOSED CRYSTAL SYSTEM RECORD

OCS #1 Serial #984369
OCS #2 Serial #285411

SITE NAME DUENGO
SITE DATA

| COUNT DATE INITIAL 30 DAY | SAMPLE NUMBER | SAMPLE LOCATION | DATE SAMPLED | DATE SEALED | TAG NO INITIAL 30 DAY | FUNCTION NO. INITIAL 30 DAY | MASS NET DRY | Mo 936 INITIAL 30 DAY | QC CHECK | LABORATORY RESULT Mo 936 Yb 238 | DEPTH 415 cm 415 cm | TECH INITIAL 30 DAY | REMARKS |
|---------------------------------|------------------|--------------------|-----------------|----------------|-----------------------------|-----------------------------------|--------------------|-----------------------------|-------------|---------------------------------------|---------------------------|---------------------------|----------------------------------|
| 2/25/89 | DU-SS-12601 | C59-121 | 2/24/89 | | 2 | 1.15E 3 | 343.6 | 3.35 | | | ✓ | SS | AJ 50000 E 50000 1m - 1480 |
| 2/25/89 | DU-SV | | | | | | | | | | | | |
| 2/25/89 | DU-SS-12624 | C59-122 | 2/1/89 | | 1 | 9.14E 2 | 396.1 | 2.31 | | | ✓ | JS | AJ 50066 E 50066 1620.5 |
| 2/25/89 | DU-SV | | | | | | | | | | | | |
| 2/25/89 | DU-SS-12625 | C59-123 | 2/1/89 | | 1 | 3.41E 2 | 433.5 | 4.00 | | | ✓ | JS | E 50200 1430.0m |
| 2/25/89 | DU-SV | | | | | | | | | | | | |
| 2/25/89 | DU-SS-12626 | C59-124 | 2/1/89 | | 1 | 6.02E 2 | 435.1 | 1.38 | | | ✓ | JS | AJ 50033 E 50200 1280.5 |
| 2/25/89 | DU-SV | | | | | | | | | | | | |
| 2/25/89 | DU-SS-12627 | C59-125 | 2/1/89 | | 2 | 6.97E 2 | 433.6 | 1.61 | | | ✓ | JS | AJ 49966 E 50233 1410.5 |
| 2/25/89 | DU-SV | | | | | | | | | | | | |
| 2/25/89 | DU-SS-12628 | C59-126 | 2/1/89 | | 2 | 1.11E 3 | 427.0 | 2.60 | | | ✓ | JS | AJ 49966 E 50200 1440.0m |
| 2/25/89 | DU-SV | | | | | | | | | | | | |
| 2/25/89 | DU-SS-12631 | C59-127 | 2/1/89 | | 1 | 9.46E 2 | 411.3 | 2.29 | | | ✓ | JS | AJ 49966 E 50166 2040.0m |
| 2/25/89 | DU-SV | | | | | | | | | | | | |
| 2/25/89 | DU-SS-12632 | C59-128 | 2/1/89 | | 1 | 2.98E 3 | 434.8 | 6.85 | | | ✓ | JS | AJ 49966 E 50133 2140.0m |
| 2/25/89 | DU-SV | | | | | | | | | | | | |
| 2/25/89 | DU-SS-12633 | C59-129 | 2/1/89 | | 1 | 1.26E 3 | 410.8 | 3.07 | | | ✓ | JS | AJ 49966 E 50100 2370.5 |
| 2/25/89 | DU-SV | | | | | | | | | | | | |
| 2/25/89 | DU-SS-12634 | C59-132 | 2/1/89 | | 2 | 1.27E 3 | 389.8 | 1.17 | | | ✓ | JS | AJ 49966 E 50033 2330.0m |
| 2/25/89 | DU-SV | | | | | | | | | | | | |
| 2/25/89 | DU-SS-12635 | C59-134 | 2/1/89 | | 2 | 3.37E 3 | 453.7 | 7.40 | | | ✓ | JS | AJ 49966 E 50066 1740.0m |
| 2/25/89 | DU-SV | | | | | | | | | | | | |

NOTE: All sample results are in pCi/gm

REVIEWED BY

Site Correction factor = 1.31(x)1.749 (10/21/87) VP Correction Factor = 1.15(x)4.505 for HMA-5001/E (2/3/88)
1.00(x)-1.40 for 5-15001/E (2/3/88)

SITE NAME DURANGO
SITE AREA

MR-PIGUSO3/CHEM-NUCLEAR
OPPOSED CRYSTAL SYSTEM RECORD

OCS #1: 984369
OCS #2: 285411

OCS SERIAL NO. _____

| COUNT DATE | SAMPLE NUMBER | SAMPLE LOCATION | DATE SAMPLED | DATE SEALED | OCS# | FUNCTION NO. | | PURE | | QC | LABORATORY RESULT | | TECH | REMARKS |
|------------|---------------|-----------------|--------------|-------------|------|--------------|--------|-------|------|----|-------------------|--------|---------|----------------------------------|
| | | | | | | INITIAL | 30 DAY | WET | DRY | | No 276 | No 276 | INITIAL | |
| 2-2-89 | Du-55-12634 | 059-130 | 2/1/89 | | 1 | 2.03E3 | 567 | 358.2 | 567 | | | | 25 | N 49966 2190 S E 50066 2330 M |
| 2-2-89 | Du-55-12635 | 059-131 | 2/1/89 | | 1 | 2.31E3 | 750 | 384 | 750 | | | | 25 | N 49966 2190 S E 50033 2490 M |
| 2-2-89 | Du-55-12636 | 059-133 | 2/1/89 | | 1 | 1.54E2 | 2000 | 390.0 | 2000 | | | | 25 | N 49900 1500 S E 50033 1600 M |
| 2-2-89 | Du-55-12637 | 059-135 | 2/1 | | 2 | 1.12E3 | 483 | 201.9 | 483 | | | | 25 | N 49900 2130 S E 50066 2170 M |
| 2-2-89 | Du-55-12638 | 059-136 | 2/1 | | 2 | 8.23E2 | 313 | 263.1 | 313 | | | | 25 | N 49933 2020 S E 50100 2190 M |
| 2-2-89 | Du-55-12639 | 059-137 | 2/1 | | 2 | 2.22E3 | 580 | 385.6 | 580 | | | | 25 | N 49900 2110 S E 50100 2130 M |
| 2-2-89 | Du-55-12640 | 059-138 | 2/1 | | 2 | 2.37E3 | 537 | 441.1 | 537 | | | | 25 | N 49933 2020 S E 50166 1970 M |
| 2-2-89 | Du-55-12641 | 059-139 | 2/1 | | 2 | 2.46E3 | 643 | 355.0 | 643 | | | | 25 | N 49900 2220 S E 50100 1960 M |
| 2-2-89 | Du-55-12642 | 059-140 | 2/1 | | 2 | 1.00E3 | 354 | 242.5 | 354 | | | | 25 | N 49933 2020 S E 50166 1960 M |
| 2-2-89 | Du-55-12643 | 059-141 | 2/1 | | 2 | 8.75E2 | 241 | 363.0 | 241 | | | | 25 | N 49900 2580 S E 50166 1910 M |
| 2-2-89 | Du-55-12644 | 059-142 | 2/1 | | 2 | 1.23E3 | 358 | 409.4 | 358 | | | | 25 | N 49933 1620 S E 50200 1841 M |
| 2-2-89 | Du-55-12645 | 059-143 | 2/1 | | 2 | 8.62E2 | 228 | 377.5 | 228 | | | | 25 | N 49900 2580 S E 50200 1850 M |

NOTE: All soil sample results are in %Cl/gm

Site Correction Factor = 1.31(x) + .749 (10/21/88) VP Correction Factor = 1.35(x) + .505 MDA-5pCl/g
Count Time = 500 sec, unless noted otherwise. (2/3/88) = 1.98(x) - 1.40 5-15pCl/g

REVIEWED BY DB

OC3 #1 Serial #984369
OC5 #2 Serial #285411

| DATE | PAGE | NAME |
|------|------|-------------|
| 1944 | 1 | W. J. W. W. |
| 1944 | 2 | W. J. W. W. |
| 1944 | 3 | W. J. W. W. |
| 1944 | 4 | W. J. W. W. |
| 1944 | 5 | W. J. W. W. |
| 1944 | 6 | W. J. W. W. |
| 1944 | 7 | W. J. W. W. |
| 1944 | 8 | W. J. W. W. |
| 1944 | 9 | W. J. W. W. |
| 1944 | 10 | W. J. W. W. |
| 1944 | 11 | W. J. W. W. |
| 1944 | 12 | W. J. W. W. |
| 1944 | 13 | W. J. W. W. |
| 1944 | 14 | W. J. W. W. |
| 1944 | 15 | W. J. W. W. |
| 1944 | 16 | W. J. W. W. |
| 1944 | 17 | W. J. W. W. |
| 1944 | 18 | W. J. W. W. |
| 1944 | 19 | W. J. W. W. |
| 1944 | 20 | W. J. W. W. |
| 1944 | 21 | W. J. W. W. |
| 1944 | 22 | W. J. W. W. |
| 1944 | 23 | W. J. W. W. |
| 1944 | 24 | W. J. W. W. |
| 1944 | 25 | W. J. W. W. |
| 1944 | 26 | W. J. W. W. |
| 1944 | 27 | W. J. W. W. |
| 1944 | 28 | W. J. W. W. |
| 1944 | 29 | W. J. W. W. |
| 1944 | 30 | W. J. W. W. |
| 1944 | 31 | W. J. W. W. |
| 1944 | 32 | W. J. W. W. |
| 1944 | 33 | W. J. W. W. |
| 1944 | 34 | W. J. W. W. |
| 1944 | 35 | W. J. W. W. |
| 1944 | 36 | W. J. W. W. |
| 1944 | 37 | W. J. W. W. |
| 1944 | 38 | W. J. W. W. |
| 1944 | 39 | W. J. W. W. |
| 1944 | 40 | W. J. W. W. |
| 1944 | 41 | W. J. W. W. |
| 1944 | 42 | W. J. W. W. |
| 1944 | 43 | W. J. W. W. |
| 1944 | 44 | W. J. W. W. |
| 1944 | 45 | W. J. W. W. |
| 1944 | 46 | W. J. W. W. |
| 1944 | 47 | W. J. W. W. |
| 1944 | 48 | W. J. W. W. |
| 1944 | 49 | W. J. W. W. |
| 1944 | 50 | W. J. W. W. |
| 1944 | 51 | W. J. W. W. |
| 1944 | 52 | W. J. W. W. |
| 1944 | 53 | W. J. W. W. |
| 1944 | 54 | W. J. W. W. |
| 1944 | 55 | W. J. W. W. |
| 1944 | 56 | W. J. W. W. |
| 1944 | 57 | W. J. W. W. |
| 1944 | 58 | W. J. W. W. |
| 1944 | 59 | W. J. W. W. |
| 1944 | 60 | W. J. W. W. |
| 1944 | 61 | W. J. W. W. |
| 1944 | 62 | W. J. W. W. |
| 1944 | 63 | W. J. W. W. |
| 1944 | 64 | W. J. W. W. |
| 1944 | 65 | W. J. W. W. |
| 1944 | 66 | W. J. W. W. |
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| 1944 | 75 | W. J. W. W. |
| 1944 | 76 | W. J. W. W. |
| 1944 | 77 | W. J. W. W. |
| 1944 | 78 | W. J. W. W. |
| 1944 | 79 | W. J. W. W. |
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| 1944 | 81 | W. J. W. W. |
| 1944 | 82 | W. J. W. W. |
| 1944 | 83 | W. J. W. W. |
| 1944 | 84 | W. J. W. W. |
| 1944 | 85 | W. J. W. W. |
| 1944 | 86 | W. J. W. W. |
| 1944 | 87 | W. J. W. W. |
| 1944 | 88 | W. J. W. W. |
| 1944 | 89 | W. J. W. W. |
| 1944 | 90 | W. J. W. W. |
| 1944 | 91 | W. J. W. W. |
| 1944 | 92 | W. J. W. W. |
| 1944 | 93 | W. J. W. W. |
| 1944 | 94 | W. J. W. W. |
| 1944 | 95 | W. J. W. W. |
| 1944 | 96 | W. J. W. W. |
| 1944 | 97 | W. J. W. W. |
| 1944 | 98 | W. J. W. W. |
| 1944 | 99 | W. J. W. W. |
| 1944 | 100 | W. J. W. W. |

[illegible]

service: All civil couple residents are in p-CL/eq

REVISED BY

Site Correction factor = 1.31(x) + 7.69 (10/21/87) VP Correction Factor = 1.15(x) + 5.05 for PMA-5pc1/a (2/1/88)
+ 0.00(x) + 7.00 for S-15.0p1/a (7/1/88)

PIE-FERGUSON/CHEM-NUCLEAR
OPPOSED CRYSTAL SYSTEM RECORD

OCS #1 Serial #984369
OCS #2 Serial #285411

SITE NAME Durango
SITE AREA _____

| COUNT DATE | SAMPLE NUMBER | SAMPLE LOCATION | DATE ENVELOPE | DATE SEALED | TAG NO | | FUNCTION NO. | | MASS | | No 336 | | OC | LABORATORY RESULT | | DEPTH | TECH | REMARKS | | |
|------------|------------------|--------------------|------------------|----------------|---------|--------|--------------|--------|-------|-------|---------|--------|----|----------------------|--------|-------|------|--|--|--------|
| | | | | | INITIAL | 20 DAY | INITIAL | 20 DAY | NET | DRY | INITIAL | 20 DAY | | UNIT | No 336 | | | | | Th 336 |
| | | | | | 15 CR | 15 CR | 15 CR | 15 CR | 15 CR | 15 CR | 15 CR | 15 CR | | 15 CR | 15 CR | | | | | |
| 2-27-89 | DU-SS-12665 | 059-146 | 2-27-89 | | 1 | 1.69E3 | 674.5 | 2.51 | | | | | | | | ✓ | RF | N-49866 CPTM E-50133 1950C. 17501m | | |
| | DU-SV | | | | | | | | | | | | | | | | | | | |
| 2-27-89 | DU-SS-12666 | 059-147 | 2-27-89 | | 1 | 1.06E3 | 701.0 | 1.51 | | | | | | | | ✓ | RF | N-49866 CPTM E-50200 3290C. 20801m | | |
| | DU-SV | | | | | | | | | | | | | | | | | | | |
| 2-27-89 | DU-SS-12667 | 059-148 | 2-27-89 | | 1 | 1.99E3 | 682.5 | 2.92 | | | | | | | | ✓ | RF | N-49833 CPTM E-50200 1630C. 16701m | | |
| | DU-SV | | | | | | | | | | | | | | | | | | | |
| 2-27-89 | DU-SS-12668 | 059-149 | 2-27-89 | | 1 | 7.86E2 | 677.5 | 1.16 | | | | | | | | ✓ | RF | N-49833 CPTM E-50233 1690C. 17401m | | |
| | DU-SV | | | | | | | | | | | | | | | | | | | |
| 2-27-89 | DU-SS-12669 | 059-150 | 2-27-89 | | 1 | 2.70E3 | 685.0 | 3.94 | | | | | | | | ✓ | RF | N-49800 CPTM E-50200 1850C. 19101m | | |
| | DU-SV | | | | | | | | | | | | | | | | | | | |
| 2-27-89 | DU-SS-12670 | 059-151 | 2-27-89 | | 1 | 2.56E3 | 763.5 | 3.35 | | | | | | | | ✓ | RF | N-49866 CPTM E-50166 2020C. 20101m | | |
| | DU-SV | | | | | | | | | | | | | | | | | | | |
| 2-27-89 | DU-SS-12671 | 059-152 | 2-27-89 | | 1 | 3.42E3 | 559.5 | 6.11 | | | | | | | | ✓ | RF | N-49866 CPTM E-50133 2640C. 27001m | | |
| | DU-SV | | | | | | | | | | | | | | | | | | | |
| 2-27-89 | DU-SS-12672 | 059-153 | 2-27-89 | | 1 | 3.74E3 | 650.0 | 5.82 | | | | | | | | ✓ | RF | N-49866 CPTM E-50100 3830C. 26801m | | |
| | DU-SV | | | | | | | | | | | | | | | | | | | |
| 2-27-89 | DU-SS-12673 | 059-154 | 2-27-89 | | 1 | 6.07E3 | 593.5 | 10.2 | | | | | | | | ✓ | RF | N-49866 CPTM E-50066 2760C. 27301m | | |
| | DU-SV | | | | | | | | | | | | | | | | | | | |
| 2-27-89 | DU-SS-12674 | 059-155 | 2-27-89 | | 1 | 1.31E3 | 571.0 | 2.29 | | | | | | | | ✓ | RF | N-49866 CPTM E-50033 1840C. 18401m | | |
| | DU-SV | | | | | | | | | | | | | | | | | | | |
| 2-27-89 | DU-SS-12675 | 059-156 | 2-27-89 | | 1 | 2.92E3 | 735.5 | 3.97 | | | | | | | | ✓ | RF | N-49833 CPTM E-50166 2380C. 22601m | | |
| | DU-SV | | | | | | | | | | | | | | | | | | | |
| 2-3-89 | DU-SS-12676 | 059-157 | 2-27-89 | | 1 | 3.65E3 | 682.5 | 5.34 | | | | | | | | ✓ | RF | N-49833 CPTM E-50133 2570C. 25001m | | |
| | DU-SV | | | | | | | | | | | | | | | | | | | |

NOTE: All soil sample results are in pCi/g

REVIEWED BY _____

Site Correction Factor = 1.31(x)1.749 (10/21/87) VP Correction Factor = 1.35(x)+.505 for HDA-5pCi/g (2/3/88)
5-15pCi/g (2/3/88)

HR-TERGUSOH/CHFH-NUCLEAR
OPPOSED CRYSTAL SYSTEM RECORD

OCS #1 Serial #984369
OCS #2 Serial #285411

SITE NAME DURANGO
SITE AREA _____

| COUNT DATE | SAMPLE NUMBER | SAMPLE LOCATION | DATE SAMPLED | DATE SEALED | TAG NO. | FUNCTION NO. | WASH | Re 226 | DC | LABORATORY RESULT | | DEPTH | TECH | REMARKS |
|------------|---------------|-----------------|--------------|-------------|---------|--------------|-------|---------|--------|-------------------|--------|---------|---------|---|
| | | | | | INITIAL | INITIAL | WET | INITIAL | OVER | Re 226 | Th 236 | (15 cm) | INITIAL | |
| | | | | | 20 DAY | 20 DAY | DRY | 20 DAY | 20 DAY | | | (15 cm) | 20 DAY | |
| 3-1-89 | DU-SS-12677 | | | | 1 | 3.18 E 3 | 645.0 | 4.78 | | | | ✓ | RF | N-49833 CPTM E-50100 2140C. 2120Im. |
| | DU-SV | 059-158 | 2-27-89 | | | | | | | | | | | |
| 2-28-89 | DU-SS-12678 | | | | 2 | 2.08 E 3 | 568.1 | 3.66 | | | | ✓ | RF | N-49833 CPTM E-50066 1890C. 2480Im. |
| | DU-SV | 059-159 | 2-27-89 | | | | | | | | | | | |
| 2-28-89 | DU-SS-12679 | | | | 2 | 9.52 E 2 | 663.5 | 1.43 | | | | ✓ | RF | N-49833 CPTM E-50033 1960C. 1870Im. |
| | DU-SV | 059-160 | 2-27-89 | | | | | | | | | | | |
| 3-1-89 | DU-SS-12680 | | | | 2 | 2.48 E 3 | 701.0 | 3.82 | | | | ✓ | RF | N-49800 CPTM E-50166 2310C. 2120Im. |
| | DU-SV | 059-161 | 2-27-89 | | | | | | | | | | | |
| 3-1-89 | DU-SS-12681 | | | | 2 | 3.63 E 3 | 731.5 | 4.96 | | | | ✓ | RF | N-49800 CPTM E-50133 1230C. 2100Im. |
| | DU-SV | 059-162 | 2-27-89 | | | | | | | | | | | |
| 3-1-89 | DU-SS-12682 | | | | 2 | 4.21 E 3 | 589.9 | 8.57 | | | | ✓ | RF | N-49800 CPTM E-50100 2550C. 2720Im. |
| | DU-SV | 059-163 | 2-27-89 | | | | | | | | | | | |
| 3-1-89 | DU-SS-12683 | | | | 2 | 1.32 E 3 | 558.5 | 2.36 | | | | ✓ | RF | N-49800 CPTM E-50066 2090C. 2040Im. |
| | DU-SV | 059-164 | 2-27-89 | | | | | | | | | | | |
| 3-1-89 | DU-SS-12684 | | | | 2 | 1.88 E 3 | 614.5 | 3.06 | | | | ✓ | RF | N-49800 CPTM E-50033 2460C. 2350Im. |
| | DU-SV | 059-165 | 2-27-89 | | | | | | | | | | | |
| 3-1-89 | DU-SS-12685 | | | | 2 | 1.99 E 3 | 646.0 | 3.08 | | | | ✓ | RF | N-49800 CPTM E-50000 2190C. 2100Im. |
| | DU-SV | 059-166 | 2-27-89 | | | | | | | | | | | |
| 3-3-89 | DU-SS-12710 | | | | 1 | 1.21 E 3 | 603.5 | 2.00 | | | | ✓ | RF | N-49766 CPTM E-50233 2020C. 1m 2120 |
| | DU-SV | 059-167 | 2-27-89 | | | | | | | | | | | |
| 3-3-89 | DU-SS-12711 | | | | 1 | 1.87 E 3 | 650.6 | 2.40 | | | | ✓ | RF | N-49766 CPTM E-50200 1810C. 1m 1930 |
| | DU-SV | 059-168 | 2-27-89 | | | | | | | | | | | |
| 3-3-89 | DU-SS-12712 | | | | 1 | 3.20 E 3 | 677.0 | 4.54 | | | | ✓ | RF | N-49766 CPTM E-50166 3410C. 1m 250C |
| | DU-SV | 059-169 | 2-27-89 | | | | | | | | | | | |

NOTE: All soil sample results are in pCi/gm

REVIEWED BY _____

Site Correction Factor = 1.31(x)1.749 (10/21/87) VP Correction Factor = 1.35(x)+.505 for HMA-5pCi/g (2/3/88)
1.98(x)-1.40 for 5-15pCi/g (2/3/88)

RE-FOCUSON/CHEN-NUCLEAR
OFFGAS CRISTAL SYSTEM RECORD

OCS #1 Serial #984369
OCS #2 Serial #285411

SITE NAME Duerrgo
SITE AREA _____

| COURSE DATE | SAMPLE NUMBER | SAMPLE LOCATION | DATE SNIPPED | DATE SEALED | TAG NO | FUNCTION NO. | MASS | Rn 226 | OC | LABORATORY RESULT | | DEPTH | SECH | REMARKS |
|-------------|----------------------|--------------------|-----------------|----------------|---------|--------------|-------|---------|----|----------------------|--------|-------|------|--|
| | | | | | INITIAL | INITIAL | WET | INITIAL | | Rn 226 | Th 230 | | | |
| | | | | | 30 DAY | 30 DAY | DRY | 30 DAY | | | | | | |
| 3-3-89 | DU-SS-12713 DU-SV | 059-170 | 2/27/89 | | 1 | 3.41E3 | 554.4 | 6.15 | | | | ✓ | RF | N 49766 CPM E 50133 C-3800 Im-2600 |
| 3-3-89 | DU-SS-12714 DU-SV | 059-171 | 2/27/89 | | 1 | 2.51E3 | 549.5 | 4.19 | | | | ✓ | RF | N 49766 CPM E 50100 C-1970 Im-1940 |
| 3-3-89 | DU-SS-12715 DU-SV | 059-172 | 2/27/89 | | 2 | 1.09E3 | 543.6 | 2.00 | | | | ✓ | RF | N 49766 CPM E 50066 C-2000 Im-2000 |
| 3-3-89 | DU-SS-12716 DU-SV | 059-173 | 2/27/89 | | 2 | 1.57E3 | 630.5 | 2.49 | | | | ✓ | RF | N 49766 CPM E 50033 C-2470 Im-2200 |
| 3-3-89 | DU-SS-12717 DU-SV | 059-174 | 2/27/89 | | 2 | 2.10E3 | 539.5 | 3.89 | | | | ✓ | RF | N 49766 CPM E 50000 C-2050 Im-1920 |
| 3-3-89 | DU-SS-12718 DU-SV | 059-175 | 2/27/89 | | 2 | 1.06E3 | 546.0 | 1.78 | | | | ✓ | RF | N 49733 CPM E 50233 C-1830 Im-2010 |
| 3-6-89 | DU-SS-12719 DU-SV | 059-176 | 2/27/89 | | 1 | 2.57E3 | 557.2 | 4.61 | | | | ✓ | OFW | N 49733 CPM E 50200 C-3440 Im-2960 |
| 3-6-89 | DU-SS-12720 DU-SV | 059-177 | 2/27/89 | | 1 | 2.94E3 | 540.0 | 5.44 | | | | ✓ | OFW | N 49733 CPM E 50166 C-3360 Im-2800 |
| 3-6-89 | DU-SS-12721 DU-SV | 059-178 | 2/27/89 | | 1 | 2.93E3 | 538.6 | 5.44 | | | | ✓ | OFW | N 49733 CPM E 50133 C-2000 Im-2080 |
| 3-6-89 | DU-SS-12722 DU-SV | 059-179 | 2/27/89 | | 1 | 1.11E3 | 550.0 | 2.02 | | | | ✓ | OFW | N 49733 CPM E 50100 C-1890 Im-1900 |
| 3-6-89 | DU-SS-12723 DU-SV | 059-180 | 2/27/89 | | 1 | 1.21E3 | 581.0 | 2.07 | | | | ✓ | OFW | N 49733 CPM E 50066 C-2030 Im-2120 |
| 3-6-89 | DU-SS-12724 DU-SV | 059-181 | 2/27/89 | | 1 | 1.21E3 | 601.1 | 2.01 | | | | ✓ | OFW | N 49733 CPM E 50033 C-2050 Im-1970 |

NOTE: All soil sample results are in pCi/gm

REVIEWED BY _____

Site Correction Factor = 1.31(x)1.749 (10/21/87) VP Correction Factor = 1.35(x)+.505 for HMA-SpCl/r (2/3/88)
1.07(x)-1.20 for S-15SpCl/r (2/3/88)

MR. PERCIVAL/CHEN-MUKLEAR
OPPOSED CRYSTAL SYSTEM RECORD

OCS #1 Serial 888019
OCS #2 Serial 888011

DATE: 2/27/89

SITE NAME: DUEMAGO
SITE AREA:

| COUNT DATE | SAMPLE NUMBER | SAMPLE LOCATION | DATE SIFTED | DATE SEALED | TAG NO | FUNCTION NO. | MASS | Na 226 | QC | LABORATORY | DEPTH | VECH | REMARKS |
|------------|---------------|-----------------|-------------|-------------|---------|--------------|-------|---------|-------|------------|-------|---------|--------------------------------------|
| INITIAL | | | | | INITIAL | INITIAL | WET | INITIAL | CONF. | Na 226 | 15 cm | INITIAL | |
| 30 DAY | | | | | 30 DAY | 30 DAY | DRY | 30 DAY | | Na 226 | 15 cm | 30 DAY | |
| 3-6-87 | DU-SS-12128 | 059-182 | 2/27/89 | | 1 | 1.36 E 3 | 591.2 | 2.30 | | | ✓ | W | N 49700 E 50133 C-3030 1M-2880 |
| 3-6-87 | DU-SV | | | | | | | | | | | | |
| | DU-SS-12128 | 059-183 | 2/27/89 | | 1 | 2.34 E 3 | 560.2 | 4.18 | | | ✓ | W | N 49700 E 50133 C-3460 1M-2970 |
| | DU-SV | | | | | | | | | | | | |
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MR-FERGUSON/CHEN-NUCLEAR
 OPPOSED CRYSTAL SYSTEM RECORD

 SITE NAME Durango
 SITE AREA _____

 OCS #1: 984369
 OCS #2: 285411

OCS SERIAL NO. _____

| COUNT DATE | SAMPLE NUMBER | SAMPLE LOCATION | DATE SAMPLED | DATE SEALED | UCS# | FUNCTION NO. | MASS | Re 226 | OC | LABORATORY RESULT | DEPT | TECH | REMARKS |
|------------|---------------|-----------------|--------------|-------------|---------|--------------|-------|---------|--------|-------------------|--------|---------|---------------------------------------|
| INITIAL | | | | | INITIAL | INITIAL | WET | INITIAL | OC | Re 226 | Th 230 | INITIAL | |
| 20 DAY | | | | | 20 DAY | 20 DAY | DRY | 20 DAY | SAMPLE | | | 20 DAY | |
| 2-6-89 | 04-SS-12730 | 059-184 | 2-27-89 | | 1 | 2.47E3 | 585.3 | 4.22 | | | | ✓ | DTW N 49700 CPTM 2190C E 50166 21901m |
| 3-6-89 | 04-SS-12731 | 059-185 | 2-27-89 | | 1 | 1.36E3 | 531.6 | 2.56 | | | | ✓ | DTW N 49700 CPTM 2070C E 50133 19701m |
| 2-6-89 | 04-SS-12732 | 059-186 | 2-27-89 | | 1 | 1.44E3 | 593.5 | 2.42 | | | | ✓ | DTW N 49700 CPTM 2160C E 50100 19701m |
| 3-6-89 | 04-SS-12733 | 059-187 | 2-27-89 | | 1 | 8.42E2 | 612.6 | 1.38 | | | | ✓ | DTW N 49700 CPTM 2020C E 50066 19801m |
| 3-6-89 | 04-SS-12734 | 059-188 | 2-27-89 | | 2 | 8.74E2 | 576.5 | 1.63 | | | | ✓ | DTW N 49666 CPTM 2190C E 50266 21781m |
| 3-6-89 | 04-SS-12735 | 059-189 | 2-27-89 | | 2 | 4.78E2 | 564.2 | (MHA) | | | | ✓ | DTW N 49666 CPTM 2110C E 50233 19501m |
| 3-6-89 | 04-SS-12736 | 059-190 | 2-27-89 | | 2 | 4.80E2 | 565.8 | (MHA) | | | | ✓ | DTW N 49666 CPTM 2160C E 50200 22201m |
| 3-6-89 | 04-SS-12737 | 059-191 | 2-27-89 | | 1 | 8.48E2 | 557.7 | 1.52 | | | | ✓ | DTW N 49666 CPTM 2190C E 50166 21601m |
| 3-6-89 | 04-SS-12738 | 059-192 | 2-27-89 | | 1 | 1.01E3 | 543.4 | 1.86 | | | | ✓ | DTW N 49666 CPTM 2020C E 50133 20201m |
| 3-6-89 | 04-SS-12739 | 059-193 | 2-27-89 | | 1 | 1.20E3 | 570.0 | 2.22 | | | | ✓ | DTW N 49666 CPTM 2280C E 51100 20701m |
| 3-6-89 | 04-SS-12740 | 059-194 | 2-27-89 | | 2 | 1.50E3 | 611.0 | 2.45 | | | | ✓ | DTW N 49633 CPTM 2680C E 50266 26201m |
| 3-6-89 | 04-SS-12741 | 059-195 | 2-27-89 | | 2 | 9.00E2 | 572.7 | 1.57 | | | | ✓ | DTW N 49633 CPTM 2310C E 50233 22201m |

NOTE: All soil sample results are in pCi/gn

 Site Correction Factor = $1.31(x) + .749$ (10/21/88)
 Count Time = 500 sec, unless noted otherwise.

 REVISED BY _____
 VP Correction Factor = $1.35(x) + .505$ MDA-5pCi/g
 (2/3/88) = $1.98(x) - 1.40$ S-15pCi/g

MH-FERGUSON/CHEM-NUCLEAR
 OPPOSED CRYSTAL SYSTEM RECORD

 SITE NAME Durango
 SITE AREA _____

 OCS #1: 984369
 OCS #2: 285411

OCS SERIAL NO. _____

| COUNT DATE | SAMPLE | SAMPLE | DATE | DATE | OCS# | FUNCTION NO. | MASS | Re 226 | OC | LABORATORY | DEPTH | TECH | REMARKS |
|------------|-------------|----------|---------|--------|---------|--------------|-------|---------|--------|---------------|-------|---------|------------------------|
| INITIAL | NUMBER | LOCATION | SAMPLED | SEALED | INITIAL | INITIAL | WET | INITIAL | SAMPLE | RESULT | 15 cm | INITIAL | |
| 20 DAY | | | | | 20 DAY | 20 DAY | DRY | 20 DAY | | Re 226 Th 230 | 15 cm | 20 DAY | |
| 3-6-89 | | | | | 2 | 1.27E3 | 601.4 | 2.11 | | | ✓ | OTW | N-49633 CPTM 248C |
| | DU-SS-12742 | 059-196 | 2-27-89 | | | | | | | | | | E-50200 2171m |
| 3-6-89 | | | | | 1 | 6.14E2 | 648.0 | 5.16 | | | ✓ | OTW | N-49633 CPTM 2171C. |
| | DU-SS-12743 | 059-197 | 2-27-89 | | | | | | | | | | E-50166 20751m |
| 3-6-89 | | | | | 1 | 1.67E3 | 639.3 | 2.61 | | | ✓ | OTW | N-49600 CPTM 2463C |
| | DU-SS-12744 | 059-198 | 2-27-89 | | | | | | | | | | E-50266 24901m |
| 3-6-89 | | | | | 1 | 1.80E3 | 657.8 | 2.74 | | | ✓ | OTW | N-49600 CPTM 2342C |
| | DU-SS-12745 | 059-199 | 2-27-89 | | | | | | | | | | E-50233 22111m |
| 3-6-89 | | | | | 2 | 1.12E3 | 609.8 | 1.84 | | | ✓ | OTW | N-49600 CPTM 2345C. |
| | DU-SS-12746 | 059-200 | 2-27-89 | | | | | | | | | | E-50200 22191m |
| 3-6-89 | | | | | 2 | 6.67E2 | 552.1 | 1.21 | | | ✓ | OTW | N-49700 CPTM 2262C |
| | DU-SS-12747 | 059-201 | 2-27-89 | | | | | | | | | | E-50266 22361m |
| 3-6-89 | | | | | 2 | 7.36E2 | 578.0 | 1.34 | | | ✓ | OTW | N-49733 CPTM 2152C |
| | DU-SS-12748 | 059-202 | 2-27-89 | | | | | | | | | | E-50266 20271m |
| 3-6-89 | | | | | 2 | 1.53E3 | 670.0 | 2.28 | | | ✓ | OTW | N-49766 CPTM 2561C |
| | DU-SS-12749 | 059-203 | 2-27-89 | | | | | | | | | | E-50266 22381m |
| 3-6-89 | | | | | 2 | 2.64E3 | 728.5 | 3.62 | | | ✓ | OTW | N-50833 CPTM 1383C |
| | DU-SS-12750 | 059-204 | 2-28-89 | | | | | | | | | | E-50300 17351m |
| 3-6-89 | | | | | 2 | 3.31E3 | 712.2 | 4.65 | | | ✓ | OTW | N-50833 CPTM 1934C |
| | DU-SS-12751 | 059-205 | 2-28-89 | | | | | | | | | | E-50333 18281m |
| 3-6-89 | | | | | 1 | 6.81E2 | 597.7 | 5.16 | | | ✓ | OTW | N-50833 CPTM 1528C |
| | DU-SS-12752 | 059-206 | 2-28-89 | | | | | | | | | | E-50366 15151m |
| 3-6-89 | | | | | 1 | 4.37E3 | 663.6 | 7.13 | | | ✓ | OTW | N-50800 CPTM 2706C |
| | DU-SS-12753 | 059-207 | 2-28-89 | | | | | | | | | | E-50300 17591m |

NOTE: All soil sample results are in pCi/gm

REVIEWED BY _____

Site Correction Factor = $1.31(x) + .749$ (10/21/88)VP Correction Factor = $1.35(x) + .505$ MDA-5pCi/g

Count Time = 500 sec, unless noted otherwise.

(2/3/89) = $1.98(x) - 1.40$ 5-15pCi/g

HK-FERGUSON/CHFH-NUCLEAR
OPPOSED CRYSTAL SYSTEM RECORD

OCS #1 Serial #784369
OCS #2 Serial #285411

SITE NAME Durango

SITE AREA _____

| SITE AREA | | | | | | | | | | | | | | | | | | |
|------------|---------------|-----------------|--------------|-------------|--------|--------------|-------|--------|----|-------------------|---------|-------|------|--|-----|---------|--------|--------|
| COUNT DATE | SAMPLE NUMBER | SAMPLE LOCATION | DATE SAMPLED | DATE SEALCD | TAG NO | FUNCTION NO. | MASS | Ra 226 | DC | LABORATORY RESULT | | DEPTH | TECH | REMARKS | | | | |
| | | | | | | | | | | INITIAL | INITIAL | | | | WET | INITIAL | 30 DAY | Th 230 |
| | | | | | | | | | | | | | | | | | | |
| 3-6-89 | DU-SS-12754 | 059-208 | 2/28/89 | | 1 | 4.12 E 3 | 687.1 | 6.0 | | | | ✓ | DPW | N-50800 CPM E-50333 C-2182 IM-1872 | | | | |
| | DU-SV | | | | | | | | | | | | | | | | | |
| 3-6-89 | DU-SS-12755 | 059-209 | 2/28/89 | | 1 | 7.36 E 2 | 679.5 | 4.90A | | | | ✓ | DPW | N-50800 CPM E-50366 C-1994 IM-1371 | | | | |
| | DU-SV | | | | | | | | | | | | | | | | | |
| 3-6-89 | DU-SS-12756 | 059-210 | 2/28/89 | | 1 | 3.58 E 3 | 700.5 | 5.11 | | | | ✓ | DPW | N-50766 CPM E-50300 C-2170 IM-1858 | | | | |
| | DU-SV | | | | | | | | | | | | | | | | | |
| 3-6-89 | DU-SS-12757 | 059-211 | 2/28/89 | | 1 | 1.29 E 3 | 599.5 | 2.15 | | | | ✓ | DPW | N-50766 CPM E-50733 C-1878 IM-1728 | | | | |
| | DU-SV | | | | | | | | | | | | | | | | | |
| 3-7-89 | DU-SS-12758 | 059-212 | 2/28/89 | | 1 | 3.93 E 3 | 694.5 | 5.66 | | | | ✓ | DPW | N-50733 CPM E-50300 C-1853 IM-1713 | | | | |
| | DU-SV | | | | | | | | | | | | | | | | | |
| 3-7-89 | DU-SS-12764 | 059-213 | 2/28/89 | | 1 | 1.49 E 3 | 6430 | 2.32 | | | | ✓ | DPW | N-50733 CPM E-50333 C-1846 IM-1469 | | | | |
| | DU-SV | | | | | | | | | | | | | | | | | |
| 3-7-89 | DU-SS-12765 | 059-214 | 2/28/89 | | 1 | 2.44 E 3 | 677.0 | 3.60 | | | | ✓ | DPW | N-50700 CPM E-50300 C-1905 IM-1707 | | | | |
| | DU-SV | | | | | | | | | | | | | | | | | |
| 3-7-89 | DU-SS-12766 | 059-215 | 2/28/89 | | 2 | 6.97 E 2 | 647.5 | 4.90A | | | | ✓ | DPW | N-50700 CPM E-50333 C-1886 IM-1469 | | | | |
| | DU-SV | | | | | | | | | | | | | | | | | |
| 3-7-89 | DU-SS-12767 | 059-216 | 2/28/89 | | 2 | 3.36 E 3 | 6040 | 5.56 | | | | ✓ | DPW | N-50666 CPM E-50266 C-2263 IM-1727 | | | | |
| | DU-SV | | | | | | | | | | | | | | | | | |
| 3-7-89 | DU-SS-12768 | 059-217 | 2/28/89 | | 2 | 2.58 E 3 | 616.0 | 4.19 | | | | ✓ | DPW | N-50666 CPM E-50300 C-2375 IM-1722 | | | | |
| | DU-SV | | | | | | | | | | | | | | | | | |
| 3-7-89 | DU-SS-12773 | 059-218 | 2/28/89 | | 2 | 3.55 E 3 | 640.5 | 5.54 | | | | ✓ | DPW | N-50633 CPM E-50266 C-2285 IM-1743 | | | | |
| | DU-SV | | | | | | | | | | | | | | | | | |
| 3-7-89 | DU-SS-12774 | 059-219 | 2/28/89 | | 2 | 2.16 E 3 | 647.5 | 3.34 | | | | ✓ | DPW | N-50633 CPM E-50300 C-2008 IM-1660 | | | | |
| | DU-SV | | | | | | | | | | | | | | | | | |

NOTE: All soil sample results are in pCi/gm

Site Correction Factor = 1.31(x) ± 7.49 (10/21/87) VP Correction Factor = 1.15(x) ± 5.05 for 100A-5pCi/g (2/3/88)
1.00(x) ± 4.0 for 5-15pCi/g (2/3/88)

REVIEWED BY _____

MR-FERGUSON/CHEM-NUCLEAR
OPPOSED CRYSTAL SYSTEM RECORD

OCS #1 Serial #984369
OCS #2 Serial #285411

SITE NAME Durango
SITE AREA _____

| COUNT DATE | SAMPLE NUMBER | SAMPLE LOCATION | DATE SAMPLED | DATE SEALED | TAG NO | FUNCTION NO. | MASS | Ra 226 | DC | LABORATORY RESULT | | REFIN | TECH | REMARKS |
|------------|---------------|-----------------|--------------|-------------|---------|--------------|--------|---------|------|-------------------|--------|--------|---------|--|
| | | | | | | | | | | | | | | |
| INITIAL | | | | | INITIAL | INITIAL | WTF | INITIAL | UNIT | Ra 226 | Th 230 | (15 c) | INITIAL | |
| 30 DAY | | | | | 30 DAY | 30 DAY | DAY | 30 DAY | | | | (15 c) | 30 DAY | |
| 3-7-89 | DU-SS-12705 | 059-220 | 2/28/89 | | 2 | 3.87E3 | 676.5 | 5.75 | | | | ✓ | DPW | N 50600 CPM E 50266 C=1877 Im=1672 |
| | DU-SV | | | | | | | | | | | | | |
| 3-7-89 | DU-SS-12776 | 059-221 | 2/28/89 | | 1 | 1.20E3 | 618.0 | 1.94 | | | | ✓ | DPW | N 50600 CPM E 50300 C=1440 Im=1380 |
| | DU-SV | | | | | | | | | | | | | |
| 3-7-89 | DU-SS-12777 | 059-222 | 2/28/89 | | 1 | 2.72E3 | 1623.5 | 4.36 | | | | ✓ | DPW | N 50566 CPM E 50266 C=2273 Im=1850 |
| | DU-SV | | | | | | | | | | | | | |
| 3-7-89 | DU-SS-12778 | 059-223 | 2/28/89 | | 1 | 2.58E3 | 588.5 | 4.38 | | | | ✓ | DPW | N 50566 CPM E 50300 C=1479 Im=1479 |
| | DU-SV | | | | | | | | | | | | | |
| 3-7-89 | DU-SS-12780 | 059-224 | 2/28/89 | | 1 | 2.62E3 | 650.0 | 4.03 | | | | ✓ | DPW | N 50533 CPM E 50266 C=2426 Im=1846 |
| | DU-SV | | | | | | | | | | | | | |
| 3-7-89 | DU-SS-12781 | 059-225 | 2/28/89 | | 1 | 1.02E3 | 631.0 | 1.62 | | | | ✓ | DPW | N 50533 CPM E 50300 C=1678 Im=1488 |
| | DU-SV | | | | | | | | | | | | | |
| 3-7-89 | DU-SS-12782 | 059-226 | 2/28/89 | | 1 | 3.44E3 | 646.5 | 5.32 | | | | ✓ | DPW | N 50500 CPM E 50266 C=2299 Im=1727 |
| | DU-SV | | | | | | | | | | | | | |
| 3-7-89 | DU-SS-12783 | 059-227 | 2/28/89 | | 1 | 9.41E2 | 722.0 | 1.30 | | | | ✓ | DPW | N 50500 CPM E 50200 C=1551 Im=1487 |
| | DU-SV | | | | | | | | | | | | | |
| 3-7-89 | DU-SS-12784 | 059-228 | 2/28/89 | | 1 | 9.72E2 | 647.0 | 1.50 | | | | ✓ | DPW | N 49566 CPM E 50533 C=2308 Im=2250 |
| | DU-SV | | | | | | | | | | | | | |
| 3-7-89 | DU-SS-12785 | 059-229 | 2/28/89 | | 1 | 1.28E3 | 646.5 | 1.98 | | | | ✓ | DPW | N 49566 CPM E 50500 C=2285 Im=2342 |
| | DU-SV | | | | | | | | | | | | | |
| 3-7-89 | DU-SS-12786 | 059-230 | 2/28/89 | | 1 | 7.32E2 | 614.0 | 1.19 | | | | ✓ | DPW | N 49566 CPM E 50466 C=2385 Im=2399 |
| | DU-SV | | | | | | | | | | | | | |
| 3-7-89 | DU-SS-12787 | 059-231 | 2/28/89 | | 1 | 1.64E3 | 645.8 | 2.54 | | | | ✓ | DPW | N 49566 CPM E 50433 C=2259 Im=2344 |
| | DU-SV | | | | | | | | | | | | | |

NOTE: All soil sample results are in pCi/gm

REVIEWED BY _____

Site Correction Factor = 1.31(x)+.749 (10/21/87) VP Correction Factor = 1.35(x)+.505 for HDA-5pCi/g (2/3/88)
1.98(x)-1.40 for 5-15pCi/g (2/3/88)

HR-FERGUSON/CHEM-NUCLEAR
OPPOSED CRYSTAL BYL EM RECORD

OCS #1 Serial #984369
OCS #2 Serial #285411

SITE NAME Durango
SITE AREA _____

| COUNT DATE | SAMPLE NUMBER | SAMPLE LOCATION | DATE SNIPLED | DATE SEALED | TAG NO | FUNCTION NO. | | NASS | Ra 226 | | QC | LABORATORY RESULT | | DEPTH | SECN | REMARKS |
|------------|---------------|-----------------|--------------|-------------|--------|--------------|--------|------|---------|--------|----|-------------------|--------|-------|------|---|
| | | | | | | INITIAL | 20 DAY | | INITIAL | 20 DAY | | Ra 226 | Th 232 | | | |
| | | | | | | 20 DAY | 20 DAY | | 20 DAY | 20 DAY | | 20 DAY | 20 DAY | | | |
| 3-7-89 | DU-55-1278 | 059-232 | 2/28/89 | | 2 | 8.93 E 2 | 672.3 | 1.28 | | | | | | ✓ | OFW | N 49586 CPTM E 50400 C-2286 IM-2461 |
| | DU-SV | | | | | | | | | | | | | | | |
| 3-7-89 | DU-55-1279 | 059-233 | 2/28/89 | | 2 | 8.32 E 2 | 697.8 | 1.19 | | | | | | ✓ | OFW | N 49586 CPTM E 50366 C-2426 IM-2387 |
| | DU-SV | | | | | | | | | | | | | | | |
| 3-7-89 | DU-55-12790 | 059-234 | 2/28/89 | | 2 | 9.63 E 2 | 715.3 | 1.35 | | | | | | ✓ | OFW | N 49586 CPTM E 50333 C-2354 IM-2288 |
| | DU-SV | | | | | | | | | | | | | | | |
| 3-7-89 | DU-55-12791 | 059-235 | 2/28/89 | | 2 | 1.11 E 3 | 696.0 | 1.45 | | | | | | ✓ | OFW | N 49586 CPTM E 50300 C-2572 IM-2439 |
| | DU-SV | | | | | | | | | | | | | | | |
| 3-7-89 | DU-55-12792 | 059-236 | 2/28/89 | | 1 | 9.34 E 2 | 750.3 | 1.24 | | | | | | ✓ | OFW | N 49586 CPTM E 50366 C-2180 IM-2286 |
| | DU-SV | | | | | | | | | | | | | | | |
| 3-7-89 | DU-55-12793 | 059-237 | 2/28/89 | | 1 | 4.29 E 2 | 768.6 | 1.21 | | | | | | ✓ | OFW | N 49586 CPTM E 50400 C-2056 IM-2207 |
| | DU-SV | | | | | | | | | | | | | | | |
| 3-7-89 | DU-55-12794 | 059-238 | 2/28/89 | | 1 | 2.12 E 3 | 751.5 | 2.82 | | | | | | ✓ | OFW | N 49586 CPTM E 50433 C-2601 IM-2345 |
| | DU-SV | | | | | | | | | | | | | | | |
| 3-7-89 | DU-55-12795 | 059-239 | 2/28/89 | | 1 | 1.09 E 3 | 720.5 | 1.41 | | | | | | ✓ | OFW | N 49586 CPTM E 50466 C-2787 IM-2475 |
| | DU-SV | | | | | | | | | | | | | | | |
| 3-7-89 | DU-55-12796 | 059-240 | 2/28/89 | | 2 | 1.09 E 3 | 838.2 | 1.30 | | | | | | ✓ | OFW | N 49586 CPTM E 50500 C-2363 IM-2436 |
| | DU-SV | | | | | | | | | | | | | | | |
| 3-7-89 | DU-55-12797 | 059-241 | 2/28/89 | | 2 | 8.22 E 2 | 634.7 | 1.28 | | | | | | ✓ | OFW | N 49600 CPTM E 50500 C-2722 IM-2321 |
| | DU-SV | | | | | | | | | | | | | | | |
| 3-7-89 | DU-55-12798 | 059-242 | 2/28/89 | | 2 | 1.04 E 3 | 624.5 | 1.66 | | | | | | ✓ | OFW | N 49633 CPTM E 50500 C-2461 IM-2370 |
| | DU-SV | | | | | | | | | | | | | | | |
| 3-7-89 | DU-55-12799 | 059-243 | 2/28/89 | | 2 | 8.36 E 2 | 613.0 | 1.36 | | | | | | ✓ | OFW | N 49666 CPTM E 50500 C-2527 IM-2312 |
| | DU-SV | | | | | | | | | | | | | | | |

NOTE: All soil sample results are in pCi/gm

REVIEWED BY _____

Site Correction Factor = 1.31(x) + 1.749 (10/21/87) VP Correction Factor = 1.35(x) + 1.505 for HDA-5pCi/g (2/3/88)

OPPOSED CRYSTAL SYSTEM RECORD

OCS #1 Serial #984369
OCS #2 Serial #285411

Durango

[illegible]

NOTE: All cell sample results are in $\mu\text{Ci/gm}$

REVIEWED BY

Site Correction factor = $1.31(x) + 1.749$ (10/21/07) VP Correction Factor = $1.35(x) + 1.505$ for MMA-5pc1/r (2/3/08)

DU-059
EAST SLOPES

A survey of the East slopes was performed in November of 1987. This survey consisted of pulling soil samples on 100'x50' centers. Two samples were pulled at each location, one 0-6" and one 6-12". In June of 1988 another survey was performed. At that time contact and one meter readings were taken at some of the 100'x50' grid points.

Ron Jacobs

RON JACOBS
3-10-89



REMARKS _____

MR. FERCHUSMI/CHEN-NUCLEAR
OPPOSED CRISTAL SYSTEM RECORD

OCS #1 Serial #984369
OCS #2 Serial #285411

SITE NAME Durango
SITE AREA _____

| COUNT DATE INITIAL 30 DAY | SAMPLE NUMBER | SAMPLE LOCATION | DATE SAMPLED | DATE SEALED | TAG NO INITIAL 30 DAY | FUNCTION NO. | | MARS MEF DATE | R# 236 | | QC OCS#1 | LABORATORY RESULT | | DEPTH (15 cm) (15 cm) 30 DAY | SPEC INITIAL 30 DAY | REMARKS |
|---------------------------------|---------------------|-----------------|--------------|-------------|-----------------------------|--------------|--------|---------------------|---------|--------|-------------|-------------------|--------|---------------------------------------|---------------------------|--------------------|
| | | | | | | SMITH | 30 DAY | | INITIAL | 30 DAY | | R# 236 | TH 338 | | | |
| 12-16-97 | DU-SS 9797 DU-SV | OS9-1 | 11-9 | 11-23 | 2 | 3.10 E3 | | 112.9 | 4.47 | | | | | ✓ | TM | N 50800 E 50350 |
| 12-22 | DU-SS 9891 DU-SV | OS9-2 | 11-9 | 11-23 | 1 | 1.02 E3 | | 714.2 | 1.43 | | | | | ✓ | MD | N 50900 E 50350 |
| 12-23 | DU-SS 9897 DU-SV | OS9-3 | 11-10 | 11-23 | 2 | 1.32 E3 | | 744.7 | 1.77 | | | | | ✓ | MD | N 50900 E 50400 |
| 12-16 | DU-SS 9779 DU-SV | OS9-4 | 11-10 | 11-23 | 1 | 1.31 E3 | | 681.4 | 1.92 | | | | | ✓ | CF | N 50800 E 50400 |
| 12-16 | DU-SS 9770 DU-SV | OS9-5 | 11-10 | 11-23 | 1 | 2.15 E3 | | 982.4 | 3.57 | | | | | ✓ | CF | N 50800 E 50450 |
| 12-22 | DU-SS 9899 DU-SV | OS9-6 | 11-10 | 11-23 | 1 | 1.32 E3 | | 716.2 | 1.69 | | | | | ✓ | MD | N 50700 E 50350 |
| 12-23 | DU-SS 9901 DU-SV | OS9-7 | 11-10 | 11-23 | 1 | 1.00 E3 | | 711.8 | 1.37 | | | | | ✓ | MD | N 50700 E 50350 |
| 12-16 | DU-SS 9741 DU-SV | OS9-9 | 11-9 | 11-23 | 1 | 1.50 E3 | | 748 | 0.969 | | | | | ✓ | SS/MD | N 50700 E 50400 |
| 12-16 | DU-SS 9799 DU-SV | OS9-9 | 11-9 | 11-23 | 2 | 2.72 E3 | | 615.1 | 4.42 | | | | | ✓ | TM | N 50700 E 50400 |
| 12-22 | DU-SS 9891 DU-SV | OS9-10 | 11-10 | 11-23 | 2 | 3.97 E3 | | 713.9 | 5.56 | | | | | ✓ | MD | N 50700 E 50450 |
| 12-16 | DU-SS 9796 DU-SV | OS9-11 | 11-10 | 11-23 | 2 | 3.84 E3 | | 777.3 | 4.94 | | | | | ✓ | TM | N 50700 E 50450 |
| 12-16 | DU-SS 9807 DU-SV | OS9-12 | 11-10 | 11-23 | 1 | 1.79 E3 | | 738.4 | 2.42 | | | | | ✓ | TM | N 50700 E 50450 |

NOTE: All solid sample results are in pCi/gg

REVIEWED BY _____

DATE: 11/11/97

PPM Concentration Factor = 1.75 (w/w) for PMA-Spec/E (7/7/88)

MR. FERGUSON/CRITH-HICKER
OFFSHORE CRYSTAL SYSTEM RECORD

OCS #1 Serial #984369
OCS #2 Serial #285411

SITE NAME Durango
SITE AREA

| COUNT DATE | SAMPLE NUMBER | SAMPLE LOCATION | DATE SHIPPED | DATE SEALED | TAG NO | FUNCTION NO. | | MASS | | Pa 234 | | DC | LABORATORY RESULT | | DEPTH | TECH | REMARKS |
|------------|--------------------|-----------------|--------------|-------------|--------|--------------|--------|-------|-----|---------|--------|----|-------------------|--------|--------|---------|--------------------|
| | | | | | | INITIAL | 30 DAY | WET | DRY | INITIAL | 30 DAY | | Pa 234 | Pa 234 | 415 CP | INITIAL | |
| 12-16 | DU-559828 DU-SV | 059-13 | 11-10 | 11-23 | 1 | | | 765.8 | | | 1.93 | | | | ✓ | SS/MD | N 50600 E 50350 |
| 12-21 | DU-559840 DU-SV | 059-14 | 11-10 | 11-23 | 1 | | | 704.5 | | | 1.15 | | | | ✓ | MD | N 50600 E 50350 |
| 12-22 | DU-559846 DU-SV | 059-15 | 11-10 | 11-23 | 2 | | | 857.4 | | | 2.72 | | | | ✓ | MD | N 50600 E 50400 |
| 12-22 | DU-559846 DU-SV | 059-16 | 11-10 | 11-23 | 2 | | | 705.2 | | | 1.54 | | | | ✓ | MD | N 50600 E 50400 |
| 12-22 | DU-559845 DU-SV | 059-17 | 11-10 | 11-23 | 1 | | | 777.8 | | | 3.51 | | | | ✓ | MD | N 50600 E 50450 |
| 12-23 | DU-559814 DU-SV | 059-18 | 11-10 | 11-23 | 1 | | | 715.3 | | | 3.55 | | | | ✓ | MD | N 50600 E 50450 |
| 12-21 | DU-559859 DU-SV | 059-19 | 11-9 | 11-23 | 2 | | | 732.5 | | | 4.95 | | | | ✓ | MD | N 50500 E 50350 |
| 12-22 | DU-559879 DU-SV | 059-20 | 11-9 | 11-23 | 1 | | | 803.0 | | | 5.04 | | | | ✓ | MD | N 50500 E 50350 |
| 12-19 | DU-559856 DU-SV | 059-21 | 11-9 | 11-23 | 2 | | | 802.2 | | | 2.37 | | | | ✓ | CF | N 50500 E 50400 |
| 12-21 | DU-559851 DU-SV | 059-22 | 11-9 | 11-23 | 1 | | | 721.4 | | | 5.67 | | | | ✓ | MD | N 50500 E 50400 |
| 12-16 | DU-559813 DU-SV | 059-23 | 11-9 | 11-23 | 1 | | | 702.3 | | | 7.84 | | | | ✓ | TM | N 50400 E 50350 |
| 12-21 | DU-559813 DU-SV | 059-24 | 11-9 | 11-23 | 2 | | | 745.5 | | | 2.45 | | | | ✓ | MD | N 50400 E 50350 |

NOTE: All cell sample results are in PCl/gm

REVIEWED BY

DATE: 11-11-98 FOR: TMA-50416 (12/1/98)

MR-PERCUSON/CHEM-NUCLEAR
OPPOSED CRYSTAL SYSTEM RECORD

OCS #1 Serial #984369
OCS #2 Serial #283411

SITE NAME Durango
SITE AREA _____

| COUNT DATE | SAMPLE NUMBER | SAMPLE LOCATION | DATE SAMPLED | DATE SEALED | TAG NO | | FUNCTION NO. | | PASS | | Pa 330 | | SC | LABORATORY | | DEPTH | TECH | REMARKS |
|------------|---------------------|-----------------|--------------|-------------|---------|---------|--------------|--------|------|-----|---------|--------|----|------------|--------|--------|-------|--------------------|
| | | | | | INITIAL | 30 DAY | INITIAL | 30 DAY | WET | DRY | INITIAL | 30 DAY | | Pa 330 | Pa 330 | 139 cm | | |
| 12-21 | DU-SS 9912 DU-SV | 059-25 | 11-9 | 11-23 | 2 | 5.16 E3 | 786.0 | 6.56 | | | | | | | | ✓ | MD | N 50400 E 50400 |
| 12-22 | DU-SS 9912 DU-SV | 059-26 | 11-9 | 11-23 | 1 | 2.05 E3 | 797.1 | 2.57 | | | | | | | | ✓ | MD | N 50400 E 50400 |
| 12-21 | DU-SS 9912 DU-SV | 059-27 | 11-9 | 11-23 | 2 | 1.93 E3 | 791.6 | 2.44 | | | | | | | | ✓ | MD | N 50400 E 50450 |
| 12-21 | DU-SS 9912 DU-SV | 059-28 | 11-9 | 11-23 | 1 | 3.34 E3 | 792.0 | 4.27 | | | | | | | | ✓ | MD | N 50400 E 50450 |
| 12-21 | DU-SS 9912 DU-SV | 059-29 | 11-9 | 11-23 | 1 | 2.46 E3 | 910 | 3.29 | | | | | | | | ✓ | SS/MD | N 50300 E 50350 |
| 12-22 | DU-SS 9915 DU-SV | 059-30 | 11-9 | 11-23 | 2 | 2.69 E3 | 795.0 | 3.37 | | | | | | | | ✓ | MD | N 50300 E 50350 |
| 12-16 | DU-SS 9929 DU-SV | 059-31 | 11-9 | 11-23 | 1 | 6.11 E3 | 935 | 7.32 | | | | | | | | ✓ | SS/MD | N 50300 E 50400 |
| 12-22 | DU-SS 9914 DU-SV | 059-32 | 11-9 | 11-23 | 2 | 1.36 E3 | 642.1 | 2.05 | | | | | | | | ✓ | MD | N 50300 E 50450 |
| 12-16 | DU-SS 9947 DU-SV | 059-33 | 11-9 | 11-23 | 1 | 4.27 E3 | 636 | 6.71 | | | | | | | | ✓ | SS/MD | N 50300 E 50450 |
| 12-16 | DU-SS 9944 DU-SV | 059-34 | 11-9 | 11-23 | 1 | 2.11 E3 | 649 | 3.26 | | | | | | | | ✓ | SS/MD | N 50200 E 50350 |
| 12-16 | DU-SS 9926 DU-SV | 059-35 | 11-9 | 11-23 | 1 | 1.08 E3 | 948.3 | 1.27 | | | | | | | | ✓ | MD | N 50200 E 50350 |
| 12-22 | DU-SS 9949 DU-SV | 059-36 | 11-9 | 11-23 | 2 | 1.91 E3 | 947.1 | 2.14 | | | | | | | | ✓ | MD | N 50200 E 50350 |

NOTE: All soil sample results are in g/gm

REVIEWED BY _____
MR-PERCUSON/CHEM-NUCLEAR
OPPOSED CRYSTAL SYSTEM RECORD
Durango
12/21/99

MR. FERGUSON/CHEM-HICKLAR
OPPOSED CRISTAL SYSTEM RECORD

OCS #1 Serial #984369
OCS #2 Serial #285411

SITE NAME Durango
SITE AREA _____

| COMPT DATE INITIAL 30 DAY | SAMPLE NUMBER | SAMPLE LOCATION | DATE SAMPLED | DATE SEALING | TAG NO INITIAL 30 DAY | FUNCTION NO. INITIAL 30 DAY | MASS NET DRY | Mo 336 INITIAL 30 DAY | QC OFFICE | LABORATORY RESULT Mo 336 15 339 | DEPTH 15 cm 15 DAY | TECH INITIAL 30 DAY | REMARKS |
|---------------------------------|---------------------|--------------------|-----------------|-----------------|-----------------------------|-----------------------------------|--------------------|-----------------------------|--------------|---------------------------------------|--------------------------|---------------------------|--------------------|
| | | | | | | | | | | | | | |
| 12-16 | DU-55 8816 DU-SV | 059-37 | 11-9 | 11-23 | 1 | 574 E3 | 769.3 | 7.47 | | | ✓ | | U 50200 E 50400 |
| 12-16 | DU-55 8846 DU-SV | 059-38 | 11-9 | 11-23 | 1 | 345 E3 | 774.9 | 4.45 | | | ✓ | TM | U 50200 E 50400 |
| 12-16 | DU-55 8892 DU-SV | 059-39 | 11-9 | 11-23 | 1 | 990 E2 | 440.1 | 1.35 | | | ✓ | TM | U 50200 E 50450 |
| 12-21 | DU-55 8869 DU-SV | 059-40 | 11-9 | 11-23 | 1 | 104 E3 | 657.0 | 1.58 | | | ✓ | MD | U 50200 E 50450 |
| 12-16 | DU-55 8914 DU-SV | 059-41 | 11-9 | 11-23 | 1 | 344 E3 | 915.0 | 4.22 | | | ✓ | TM | U 50100 E 50400 |
| 12-16 | DU-55 8920 DU-SV | 059-42 | 11-9 | 11-23 | 2 | 775 E2 | 729.5 | 1.06 | | | ✓ | TM | U 50100 E 50450 |
| 12-16 | DU-55 8931 DU-SV | 059-43 | 11-9 | 11-23 | 1 | 354 E3 | 685.4 | 5.16 | | | ✓ | 99/MD | U 50100 E 50450 |
| 12-16 | DU-55 8909 DU-SV | 059-44 | 11-9 | 11-23 | 1 | 454 E3 | 700.1 | 5.82 | | | ✓ | TM | U 50000 E 50350 |
| 12-23 | DU-55 8902 DU-SV | 059-45 | 11-9 | 11-23 | 2 | 667 E3 | 946.0 | 11.9 | | | ✓ | MD | U 50000 E 50400 |
| 12-16 | DU-55 8934 DU-SV | 059-46 | 11-9 | 11-23 | 1 | 819 E2 | 639 | 1.37 | | | ✓ | 99/MD | U 50000 E 50400 |
| 12-21 | DU-55 8911 DU-SV | 059-47 | 11-9 | 11-23 | 2 | 179 E3 | 517.3 | 3.46 | | | ✓ | MD | U 50000 E 50450 |
| 12-16 | DU-55 8799 DU-SV | 059-48 | 11-9 | 11-23 | 2 | 121 E3 | 934.7 | 1.45 | | | ✓ | TM | U 50000 E 50450 |

NOTES: All soil sample results are in gci/gm

Correction Factor = 1.15(x) + 0.505 for 100A-50C1/g (2/7/88)

REVIEWED BY _____

MM-FERGUSON/CHEM-NUCLEAR

OPPOSED CRISTAL SYSTEM RECORD

OCS #1 Serial 8984369
OCS #2 Serial 8285411

SITE NAME Durango
SITE AREA

| COMB DATE | INITIAL | 30 DAY | SAMPLE NUMBER | SAMPLE LOCATION | DATE SAMPLED | DATE SEALS | VAB NO | FUNCTION NO. | | MASS | Rb 238 | GC | LABORATORY RESULT | | DEPTH | TECH | REMARKS |
|-----------|---------|--------|---------------------|-----------------|--------------|------------|--------|--------------|---------|-------|---------|----|-------------------|--------|-------|---------|--------------------|
| | | | | | | | | INITIAL | 30 DAY | WET | INITIAL | | Rb 238 | Th 232 | 35 cm | INITIAL | |
| 12-21 | | | DU-55 8852 DU-SV | 059-49 | 11-9 | 11-23 | 1 | | 1.40 E3 | 114.9 | 1.72 | | | | ✓ | | N 50000 E 50450 |
| 12-21 | | | DU-55 8852 DU-SV | 059-50 | 11-9 | 11-23 | 1 | | 5.38 E3 | 104.8 | 7.72 | | | | ✓ | MB | N 50000 E 50500 |
| 12-23 | | | DU-55 8815 DU-SV | 059-51 | 11-9 | 11-23 | 1 | | 2.94 E3 | 754.3 | 3.90 | | | | ✓ | MB | N 50000 E 50500 |
| 12-16 | | | DU-56 8819 DU-SV | 059-52 | 11-9 | 11-23 | 2 | | 3.00 E3 | 671.5 | 4.42 | | | | ✓ | TM | N 49900 E 50400 |
| 12-19 | | | DU-56 8855 DU-SV | 059-53 | 11-9 | 11-23 | 1 | | 5.19 E3 | 554.6 | 9.36 | | | | ✓ | CF | N 49900 E 50400 |
| 12-19 | | | DU-56 8853 DU-SV | 059-54 | 11-9 | 11-23 | 1 | | 2.99 E3 | 794.0 | 3.63 | | | | ✓ | CF | N 49900 E 50450 |
| 12-22 | | | DU-56 8819 DU-SV | 059-55 | 11-9 | 11-23 | 1 | | 4.64 E3 | 634.7 | 6.71 | | | | ✓ | MB | N 49900 E 50450 |
| 12-16 | | | DU-56 8813 DU-SV | 059-56 | 11-9 | 11-23 | 2 | | 9.01 E2 | 624.9 | 1.44 | | | | ✓ | CF | N 49900 E 50500 |
| 12-23 | | | DU-56 8812 DU-SV | 059-57 | 11-9 | 11-23 | 2 | | 4.04 E3 | 744.4 | 5.36 | | | | ✓ | MB | N 49900 E 50500 |
| 12-16 | | | DU-56 8812 DU-SV | 059-58 | 11-9 | 11-23 | 1 | | 1.53 E3 | 717.2 | 2.13 | | | | ✓ | MB | N 49900 E 50400 |
| 12-22 | | | DU-55 8810 DU-SV | 059-59 | 11-9 | 11-23 | 1 | | 4.06 E2 | 731.0 | 0.120 | | | | ✓ | MB | N 49900 E 50400 |
| 12-16 | | | DU-55 8815 DU-SV | 059-60 | 11-9 | 11-23 | 1 | | 1.24 E3 | 734.7 | 1.71 | | | | ✓ | TM | N 49900 E 50450 |

NOTE: All cell sample results are in pCi/gm

REVIEWED BY

DATE

MR. FERGUSON/CHEM-NUCLEAR
OPPOSED CRISTAL SYSTEM RECORD

OCS #1 Serial #984369
OCS #2 Serial #285411

SITE NAME Durango
SITE AREA _____

| COMPT DATE | SAMPLE NUMBER | SAMPLE LOCATION | DATE SAMPLED | DATE SEALED | PAG NO | FUNCTION NO. | MASS | PG 230 | QC | LABORATORY RESULT | DEPTH | TECH | REMARKS |
|------------|---------------------|-----------------|--------------|-------------|---------|--------------|-------|---------|------|-------------------|--------|---------|--------------------|
| INITIALS | | | | | INITIAL | INITIAL | WET | INITIAL | UNIT | PG 236 | PG 238 | INITIAL | |
| 30 DAY | | | | | 30 DAY | 30 DAY | DRY | 30 DAY | | | | 30 DAY | |
| 12-21 | DU-56 9844 DU-SV | 059-61 | 11-9 | 11-23 | 1 | 1.08 E3 | 737.3 | 1.46 | | | ✓ | MD | N 49800 E 50450 |
| 12-16 | DU-55 8710 DU-SV | 059-62 | 11-9 | 11-23 | 1 | 3.02 E3 | 713.0 | 4.24 | | | ✓ | CF | N 49800 E 50500 |
| 12-16 | DU-55 9943 DU-SV | 059-63 | 11-9 | 11-23 | 1 | 4.61 E3 | 659.3 | 6.99 | | | ✓ | MD | N 49800 E 50500 |
| 12-19 | DU-55 9954 DU-SV | 059-64 | 11-10 | 11-23 | 1 | 6.41 E2 | 180.7 | 9.46 | | | ✓ | CF | N 49700 E 50650 |
| 12-23 | DU-55 9916 DU-SV | 059-65 | 11-10 | 11-23 | 2 | 1.97 E3 | 721.7 | 2.57 | | | ✓ | MD | N 49700 E 50550 |
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APPENDIX C

OWNER/STATE/DOE/NRC
COMMENTS/CONCURRENCE

ENGINEERS
AND
CONSTRUCTORS



MK-FERGUSON COMPANY
A MORRISON KNUDSEN COMPANY

HEADQUARTERS OFFICE
ONE ERIEVIEW PLAZA
CLEVELAND OHIO U.S.A. 44114
PHONE (216) 522-9600/TELEX 985542

REPLY TO MK-FERGUSON COMPANY
REMEDIAL ACTIONS
CONTRACTOR-UMTRA PROJECT
P.O. BOX 9136
ALBUQUERQUE, NEW MEXICO U.S.A. 87119

May 18, 1989

Mr. Conrad Steller
United Bank of Denver
United Bank Center
1700 Broadway
Denver, CO 80274-0043

SUBJECT: DU-059 - Supplemental Standards

Dear Mr. Steller:

As you know, remedial action on your property at State Highway 160 and Roosa Avenue was divided into two phases. Phase I, completed last construction season, consisted of the cleanup of all accessible areas on top of the hill. Phase II addresses the contamination found on the slopes of the property.

An additional radiological survey has been performed at the property on accessible portions of the slopes to more exactly define areas of contamination that exceed EPA standards for uranium mill tailings.

Soil samples were collected from every 100m² grid on the west and south slopes, and at every 100'x50' center on the east slope. Concentrations of Ra-226 in these soil samples ranged from 1.6 to 22.0 picocuries per gram (pCi/g). The EPA standard for Ra-226 concentrations in the top 15cm layer of soil averaged over 100m² is 5 pCi/g not including background. The background Ra-226 concentration in the Durango area is 1.6 pCi/g. Only 77 of 323 soil samples collected have Ra-226 concentration in excess of the EPA standards.

Gamma surveys show that the general area radiation levels range from 12 to 29 micro R/hr. Background for the Durango area is 14 micro R/hr. If a person spent 8 hours a day, 5 days a week, for 50 weeks in a 29 micro R/hr radiation field, he would receive about 58 millirem of gamma exposure in one year. This is less than one-fifth of the Nuclear Regulatory Commission's (NRC) limit of 500 millirem/year allowed the general public (10 CFR 20.105).

Mr. Conrad Steller
May 18, 1989
Page 2

Because of the risk of injury to contractor personnel compared to the very low public health hazard, we are recommending leaving the uranium mill tailings on the west and south slopes, and the east slope below the access road in place. This action is authorized under Title 40, Code of Federal Regulations, Sections 192.21 and 22. Basically, these sections of the EPA standards, which are established for cleanup of uranium mill tailings, allow residual radioactive materials to remain in place when certain conditions are met. The criterion defining when remedial action will not take place (called Supplemental Standards) is as follows:

Remedial action to satisfy Subparts A or B would pose a clear and present risk of injury to workers or to members of the public, notwithstanding reasonable measures to avoid or reduce risk.

MK-Ferguson believes that the criterion for the application of Supplemental Standards has been met due to the steepness and instability of the slopes of the property.

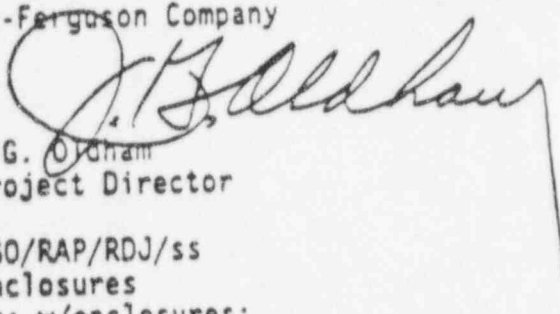
In compliance with the EPA regulations found in the Code of Federal Regulations, 40 CFR 192.21, we solicit your comments concerning this action. Excavation of radioactive materials on your property in other outdoor areas has been completed.

We are attaching a copy of the applicable sections of the Code of Federal Regulations as well as a property sketch and photographs for your convenience in responding to this proposed action. To comply with EPA regulations, we must receive a written response with your concurrence and/or comments. We request this response by June 7, 1989.

If you have any questions concerning this situation, please call Mr. Rob Pommerening or my staff at 1-800-443-4379.

Sincerely,

MK-Ferguson Company



J.G. O'Dham
Project Director

JGO/RAP/RDJ/ss
Enclosures

cc: w/enclosures:

P. Martin, United Bank of Durango
M. Thomson, DUR
J. Garcia DOE/UMTRA
Document Control



Photo No. 1. View looking southeast. Highway 160 is visible on the right. (DU-059)

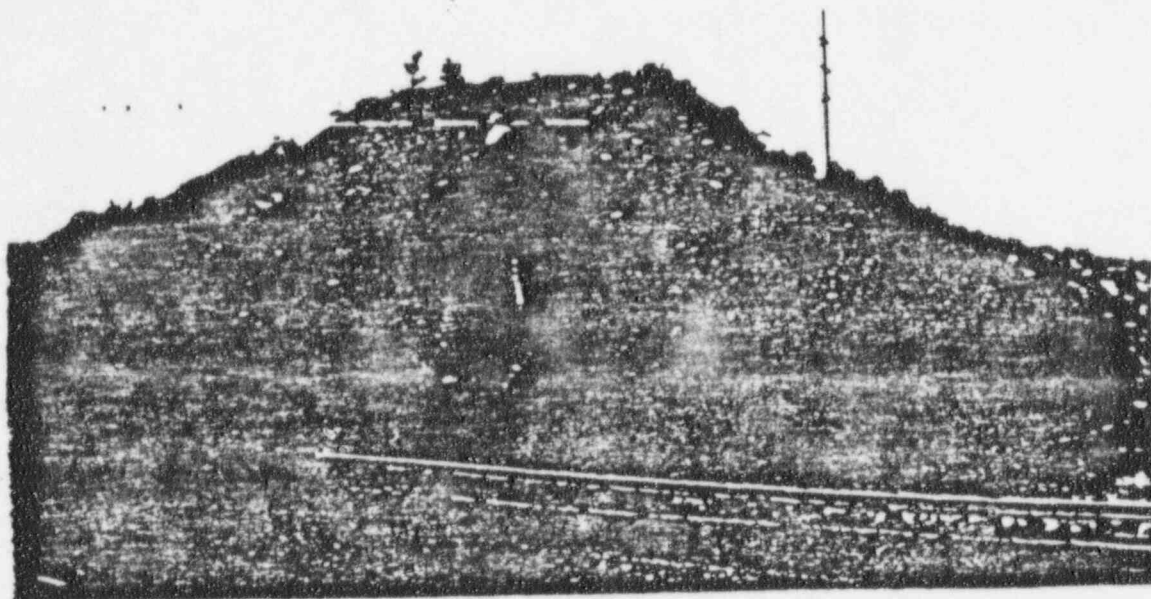


Photo No. 2. View looking north. Highway 160 is visible in the foreground. (DU-059)

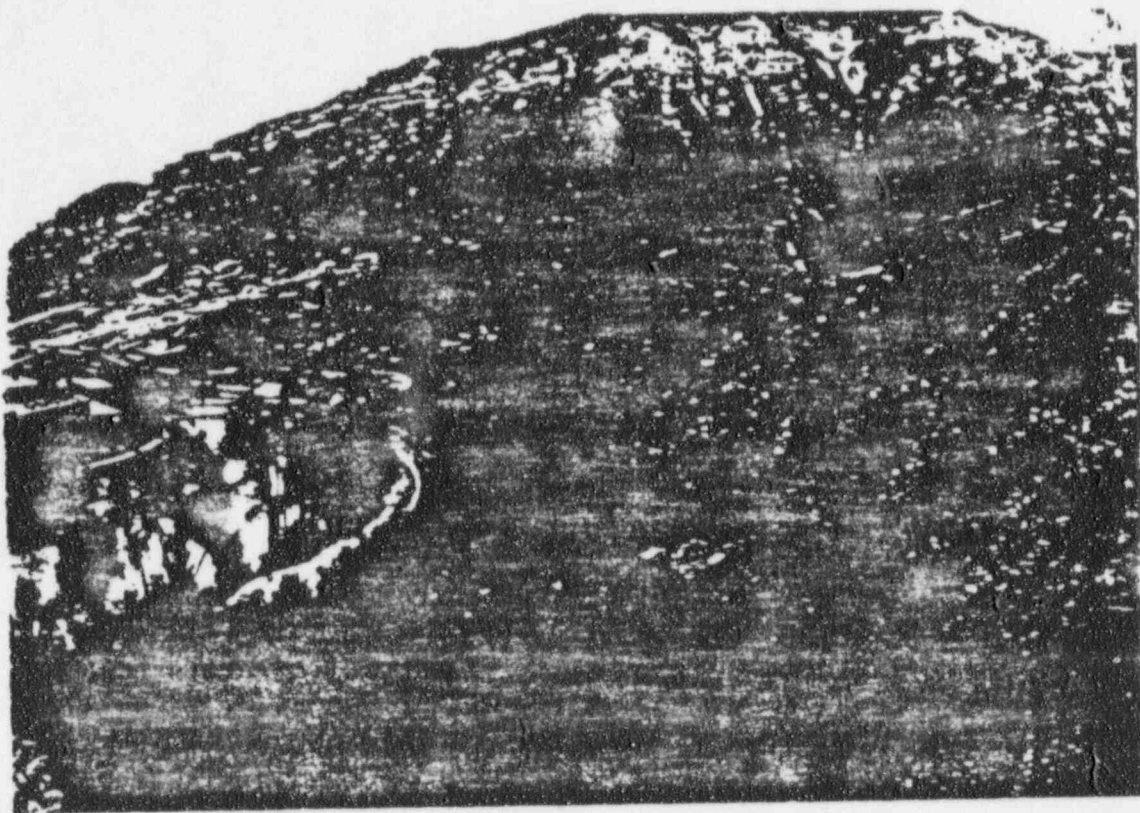


Photo No. 3. View looking south along the east slope. Red Lion Inn is visible at the left. (DU-059)

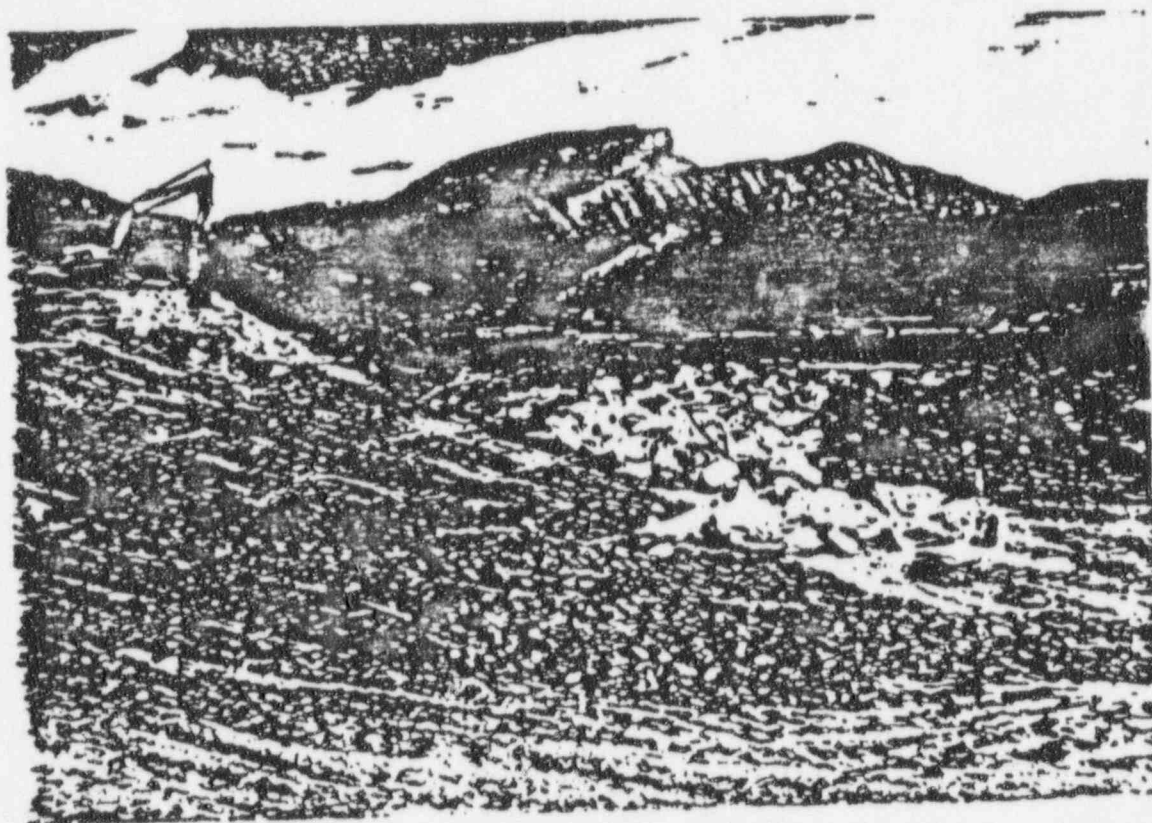


Photo No. 4. View looking north of DU-059 (property is in the background across the main site and Highway 160) same as photo #2. Red Lion Inn is visible on the right. (DU-059)

Approximate
Property
Line

(Subject Outlined in Black)

- | | |
|----------------------|--------------------------|
| 1. U. S. Highway 160 | 4. Ninth Street Bridge |
| 2. Animas River | 5. Camino del Rio |
| 3. Roosa Avenue | 6. U. S. Highway 160/550 |

TAKING
PICKS

4

spection and Enforcement Regional Office listed in Appendix D at least 30 days before the date that respiratory protective equipment is first used under the provisions of this section.

[41 FR 52301, Nov. 29, 1976, as amended at 43 FR 29270, July 7, 1978; 47 FR 16164, Apr. 15, 1982]

§ 20.104 Exposure of minors.

(a) No licensee shall possess, use, or transfer licensed material in such a manner as to cause any individual within a restricted area who is under 18 years of age, to receive in any period of one calendar quarter from radioactive material and other sources of radiation in the licensee's possession a dose in excess of 10 percent of the limits specified in the table in paragraph (a) of § 20.101.

(b) No licensee shall possess, use or transfer licensed material in such a manner as to cause any individual within a restricted area, who is under 18 years of age to be exposed to airborne radioactive material possessed by the licensee in an average concentration in excess of the limits specified in Appendix B, Table II of this part. For purposes of this paragraph, concentrations may be averaged over periods not greater than a week.

(c) The provisions of §§ 20.103(b)(2) and 20.103(c) shall apply to exposures subject to paragraph (b) of this section except that the references in §§ 20.103(b)(2) and 20.103(c) to Appendix B, Table I, Column 1 shall be deemed to be references to Appendix B, Table II, Column 1.

[25 FR 10914, Nov. 17, 1960, as amended at 41 FR 52302, Nov. 29, 1976]

§ 20.105 Permissible levels of radiation in unrestricted areas.

(a) There may be included in any application for a license or for amendment of a license proposed limits upon levels of radiation in unrestricted areas resulting from the applicant's possession or use of radioactive material and other sources of radiation. Such applications should include information as to anticipated average radiation levels and anticipated occupancy times for each unrestricted area involved. The Commission will approve

the proposed limits if the applicant demonstrates that the proposed limits are not likely to cause any individual to receive a dose to the whole body in any period of one calendar year in excess of 0.5 rem.

(b) Except as authorized by the Commission pursuant to paragraph (a) of this section, no licensee shall possess, use or transfer licensed material in such a manner as to create in any unrestricted area from radioactive material and other sources of radiation in his possession:

(1) Radiation levels which, if an individual were continuously present in the area, could result in his receiving a dose in excess of two millirems in any one hour, or

(2) Radiation levels which, if an individual were continuously present in the area, could result in his receiving a dose in excess of 100 millirems in any seven consecutive days.

(c) In addition to other requirements of this part, licensees engaged in uranium fuel cycle operations subject to the provisions of 40 CFR Part 190, "Environmental Radiation Protection Standards for Nuclear Power Operations," shall comply with that part.

[25 FR 10914, Nov. 17, 1960, and 46 FR 18526, Mar. 25, 1981]

§ 20.106 Radioactivity in effluents to unrestricted areas.

(a) A licensee shall not possess, use, or transfer licensed material so as to release to an unrestricted area radioactive material in concentrations which exceed the limits specified in Appendix B, Table II of this part, except as authorized pursuant to § 20.302 or paragraph (b) of this section. For purposes of this section concentrations may be averaged over a period not greater than one year.

(b) An application for a license or amendment may include proposed limits higher than those specified in paragraph (a) of this section. The Commission will approve the proposed limits if the applicant demonstrates:

(1) That the applicant has made a reasonable effort to minimize the radioactivity contained in effluents to unrestricted areas; and

for consideration of the various factors affecting the longevity of control and stabilization methods and their costs. These factors have different levels of predictability and may vary for the different sites.

(2) Protection of water should be considered in the analysis for reasonable assurance of compliance with the provisions of § 192.02. Protection of water should be considered on a case-specific basis, drawing on hydrological and geochemical surveys and all other relevant data. The hydrologic and geologic assessment to be conducted at each site should include a monitoring program sufficient to establish background ground water quality through one or more upgradient wells, and identify the presence and movement of plumes associated with the tailings piles.

(3) If contaminants have been released from a tailings pile, an assessment of the location of the contaminants and the rate and direction of movement of contaminated ground water, as well as its relative contamination, should be made. In addition, the assessment should identify the attenuative capacity of the unsaturated and saturated zone to determine the extent of plume movement. Judgments on the possible need for remedial or protective actions for ground-water aquifers should be guided by relevant considerations described in EPA's hazardous waste management system (47 FR 32274, July 26, 1982) and by relevant State and Federal Water Quality Criteria for anticipated or existing uses of water over the term of the stabilization. The decision on whether to institute remedial action, what specific action to take, and to what levels an aquifer should be protected or restored should be made on a case-by-case basis taking into account such factors as technical feasibility of improving the aquifer in its hydrogeologic setting, the cost of applicable restorative or protective programs, the present and future value of the aquifer as a water resource, the availability of alternative water supplies, and the degree to which human exposure is likely to occur.

(b)(1) Compliance with Subpart B, to the extent practical, should be demonstrated

through radiation surveys. Such surveys may, if appropriate, be restricted to locations likely to contain residual radioactive materials. These surveys should be designed to provide for compliance averaged over limited areas rather than point-by-point compliance with the standards. In most cases, measurement of gamma radiation exposure rates above and below the land surface can be used to show compliance with § 192.12(a). Protocols for making such measurements should be based on realistic radium distributions near the surface rather than extremes rarely encountered.

(2) In § 192.12(a), "background level" refers to the native radium concentration in soil. Since this may not be determinable in the presence of contamination by residual radioactive materials, a surrogate "background level" may be established by simple direct or indirect (e.g., gamma radiation) measurements performed nearby but outside of the contaminated location.

(3) Compliance with § 192.12(b) may be demonstrated by methods that the Department of Energy has approved for use under Pub. L. 92-314 (10 CFR 712), or by other methods that the implementing agencies determine are adequate. Residual radioactive materials should be removed from buildings exceeding 0.03 WL so that future replacement buildings will not pose a hazard (unless removal is not practical—see § 192.21(c)). However, sealants, filtration, and ventilation devices may provide reasonable assurance of reductions from 0.03 WL to below 0.02 WL. In unusual cases, indoor radiation may exceed the levels specified in § 192.12(b) due to sources other than residual radioactive materials. Remedial actions are not required in order to comply with the standard when there is reasonable assurance that residual radioactive materials are not the cause of such an excess.

§ 192.21 Criteria for applying supplemental standards.

The implementing agencies may (and in the case of Subsection (f) shall) apply standards under § 192.22 in lieu of the standards of Subparts A

or B if they determine that any of the following circumstances exists:

(a) Remedial actions required to satisfy Subparts A or B would pose a clear and present risk of injury to workers or to members of the public, notwithstanding reasonable measures to avoid or reduce risk.

(b) Remedial actions to satisfy the cleanup standards for land, § 192.12(a), or the acquisition of minimum materials required for control to satisfy § 192.02(b), would, notwithstanding reasonable measures to limit damage, directly produce environmental harm that is clearly excessive compared to the health benefits to persons living on or near the site, now or in the future. A clear excess of environmental harm is harm that is long-term, manifest, and grossly disproportionate to health benefits that may reasonably be anticipated.

(c) The estimated cost of remedial action to satisfy § 192.12(a) at a "vicinity" site (described under Sec. 101(G)(B) of the Act) is unreasonably high relative to the long-term benefits, and the residual radioactive materials do not pose a clear present or future hazard. The likelihood that buildings will be erected or that people will spend long periods of time at such a vicinity site should be considered in evaluating this hazard. Remedial action will generally not be necessary where residual radioactive materials have been placed semi-permanently in a location where site-specific factors limit their hazard and from which they are costly or difficult to remove, or where only minor quantities of residual radioactive materials are involved. Examples are residual radioactive materials under hard surface public roads and sidewalks, around public sewer lines, or in fence post foundations. Supplemental standards should not be applied at such sites, however, if individuals are likely to be exposed for long periods of time to radiation from such materials at levels above those that would prevail under § 192.12(a).

(d) The cost of a remedial action for cleanup of a building under § 192.12(b) is clearly unreasonably high relative to the benefits. Factors that should be included in this judgment are the anticipated period of occupancy, the incremental radiation level that would

be affected by the remedial action, the residual useful lifetime of the building, the potential for future construction at the site, and the applicability of less costly remedial methods than removal of residual radioactive materials.

(e) There is no known remedial action.

(f) Radionuclides other than radium-226 and its decay products are present in sufficient quantity and concentration to constitute a significant radiation hazard from residual radioactive materials.

§ 192.22 Supplemental standards.

Federal agencies implementing Subparts A and B may in lieu thereof proceed pursuant to this section with respect to generic or individual situations meeting the eligibility requirements of § 192.21.

(a) When one or more of the criteria of § 192.21(a) through (e) applies, the implementing agencies shall select and perform remedial actions that come as close to meeting the otherwise applicable standard as is reasonable under the circumstances.

(b) When § 192.21(f) applies, remedial actions shall, in addition to satisfying the standards of Subparts A and B, reduce other residual radioactivity to levels that are as low as is reasonably achievable.

(c) The implementing agencies may make general determinations concerning remedial actions under this Section that will apply to all locations with specified characteristics, or they may make a determination for a specific location. When remedial actions are proposed under this Section for a specific location, the Department of Energy shall inform any private owners and occupants of the affected location and solicit their comments. The Department of Energy shall provide any such comments to the other implementing agencies. The Department of Energy shall also periodically inform the Environmental Protection Agency of both general and individual determinations under the provisions of this section.

§ 192.23 Effective date.

Subparts A, B, and C shall be effective March 7, 1983.

ENGINEERS
AND
CONSTRUCTORS



MK-FERGUSON COMPANY
A MORRISON KNUDSEN COMPANY

HEADQUARTERS OFFICE
ONE ERIEVIEW PLAZA
CLEVELAND, OHIO U.S.A. 44114
PHONE (216) 523-5600, TELEX 985542

REPLY TO MK-FERGUSON COMPANY
REMEDIAL ACTIONS
CONTRACTOR UMTRA PROJECT
PO BOX 9136
ALBUQUERQUE, NEW MEXICO U.S.A. 87119

June 2, 1989

Mr. Conrad Steller
United Bank of Denver
United Bank Center
1700 Broadway
Denver, CO 80274-0043

SUBJECT: Application of Supplemental Standards - DU-059

Dear Mr. Steller:

Per your conversation with Rob Pommerening of my staff, enclosed is a copy of the Department of Energy (DOE) certification letter issued to owners where supplemental standards have been applied.

Should you have any questions, please contact Mr. Pommerening at 1-800-443-4379.

Sincerely,

MK-Ferguson Company

J.E. Diddam
Project Director

JGO/RAP/ss

Enclosure

cc: w/enclosure:

P. Martin, United Bank of Durango
Document Control

w/o enclosure:

J. Garcia - DOE/UMTRA



Department of Energy
 Albuquerque Operations Office
 P. O. Box 5400
 Albuquerque, New Mexico 87115

FEB 22 1989

MK-FERGUSON CO.
 ALBUQUERQUE

Vicinity Property No.

FEB 23 1989

RECEIVED

Gentlemen:

Under the Uranium Mill Tailings Radiation Control Act of 1978 (Public Law 95-604), the U.S. Department of Energy (DOE), with ten percent funding provided by the state, has completed remedial action at the property referenced above. In addition, supplemental standards were applied to certain areas of the property. Review of the available data indicates your property has been cleared of residual radioactive contamination to the extent required by the Environmental Protection Agency (EPA) Standards (40 CFR Part 192). Therefore, the DOE certifies your property is in compliance with the EPA Standards.

The current status of your property will be recorded by the state on the appropriate property records, per requirements of Public Law 95-604. Records of Uranium Mill Tailings Remedial Action vicinity properties are archived with both the state and the DOE.

Should you have any questions regarding the project or your property, please write to me at the above address or contact Gaeton Falance of my staff at (505) 846-1206 or the Department of Environmental Resources at (412) 665-2900. Your cooperation in the successful accomplishment of this work has been greatly appreciated.

Sincerely,

Original Signed By CAC 4c-

Mark L. Matthews
 Acting Project Manager
 Uranium Mill Tailings Project Office

cc:
 James G. Yusko, DER, PA


bcc:
 R. Hoyer, NRC
 J. Oldham, MK-F
 VPDMIS :FC

P.O. Drawer K
1063 Main Avenue
Durango, Colorado 81301
(303) 3242

MK-FERGUSON CO.
ALBUQUERQUE

JUN 12 1989

RECEIVED

 **United Bank
of Durango**

June 9, 1989

ATTN: J. G. Oldham, Project Director
MK-Ferguson Company
Remedial Actions
Contractor - UMTRA Project
P. O. Box 9136
Albuquerque, New Mexico 87119

RE: DU-059 - Supplemental Standards

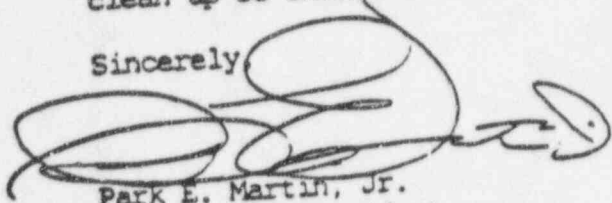
Dear Mr. Oldham,

In response to your letter of 5-18-89 and subsequent to my phone conversation with Rob Pommerening on 6-7-89, please be advised that the United Bank of Durango DOES NOT wish to apply "Supplemental Standards" to certain areas of this property. (State Highway 160 and Roosa Avenue DU-059)

At this point we have a contract in hand for purchase of this property. We have fully discussed and disclosed all information regarding the remedial action related to this property with the purchaser. The offer to purchase hinges on the total clean up of this project and therefore anything less will adversely effect the final sale of this property, therefore I am sure you will understand our position.

Additionally our review indicates that anything less than complete clean up of residual radioactive materials would negate our existing contract and/or could prove to be a "cloud" on the title to this property and be detrimental to any future attempts to market the property, therefore we have to disagree with your recommendation and further request that complete clean up be exercised.

Sincerely,


Park E. Martin, Jr.
Senior Vice President

PEM/mrs

cc: Conrad Steller, United Bank of Denver
Robert Wolff, Wessman Development Co. - (Contract Purchaser)

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| | <input checked="" type="checkbox"/> | JGD | | | PDC |
| | <input checked="" type="checkbox"/> | RFS | | | MMH |
| | <input checked="" type="checkbox"/> | REC | | <input checked="" type="checkbox"/> | RAP |
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| | | CDW | | | BLAKE |
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| | <input checked="" type="checkbox"/> | KOT | | | TBS |
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| | | JSD | | | JVN |
| | | JSDC | | | MAZ |
| | | | | | MSV |
| ORIG. FILE | | | DURANGO | | |
| WORK FILE | | | DU59 | | |



Thomas M. Vernon, M.D.
Executive Director

January 19, 1990

MK-FERGUSON CO.
 ALBUQUERQUE

JAN 29 1990

J. G. Oldham
MK-Ferguson Company
P.O. Box 9136
Albuquerque, NM 87119

RECEIVED

Re: State Concurrence on Final REA for DU-059, File No. DUR-XIII.N

Dear Mr. Oldham:

We are providing State concurrence on the Final REA for DU-059.

The Final REA discusses that remediation was completed on all relatively flat and accessible areas where development is likely to occur on this property. The REA states that remediation is not recommended for steep portions of the site which are sporadically contaminated. This contamination is shallow and is likely to be washed down the steep slopes by normal erosion within a few years. Remediation of these steep areas would be difficult, expensive, and would create environmental harm. The REA recommends that remediation not be performed on the steep portions because of the high cost relative to long-term benefits.

We concur with the Final REA and agree that supplemental standards should be applied to this property. We believe that the recommended options will satisfactorily protect the public health and environment.

I contacted Mr. Park Martin, Jr. Senior Vice President of the United Bank of Durango, owner of the property, to discuss the reasons for our concurrence. He expressed special concern about title annotation possibly placing a "cloud" on the property for future sale. I advised that DOE was reevaluating the land record annotation issue in an effort to avoid the problem he identified, but that this was still an open issue. I also promised to keep him advised about the progress of this issue.

If you have any questions, please contact Patricia Martinek at (303) 331-4828.

Sincerely,

Edward L. Bischoff
UMTRA Program Manager
Hazardous Materials and
Waste Management Division

ELB:lh:5897K

cc: B. Franz, CDH
M. Matthews, DOE
J. Garcia, DOE
P. Martin, United Bank of Durango
R. Pommerening, MK-F

| REP | INFO | DIST | REP | INFO | DIST |
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| | ✓ | JGO | | | PDC |
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STBF CO
WORK FILE DWR Q59



RADIOLOGICAL AND ENGINEERING ASSESSMENT (REA)
Review Form

DOE Location No. DU-059 Rev. No. 1

PRIORITY: ☒ ROUTINE ☐ URGENT
REQUESTED RESPONSE BY 11-16-89 DATE 11-2-89
COMMENTS: Recommended application of supplemental standards to slopes of mesa.
Robert A. Pommerening 11-2-89 CONT. ON ATTACHED SHEET NO. _____
VP MANAGER DATE

DATE RECEIVED 11/16/89
☒ RECOMMEND APPROVAL ☐ RECOMMEND APPROVAL AS NOTED BELOW ☐ DO NOT RECOMMEND APPROVAL AS NOTED BELOW
COMMENTS: Based on the data provided, the application of supplemental standards to select portions of the east and west mesas as warranted. The actual area of the east mesa application
Robert A. Pommerening 12/18/89 CONT. ON ATTACHED SHEET NO. Back
TAG DATE

DATE TRANSMITTED _____
☐ APPROVED ☐ APPROVED AS NOTED ☐ NOT APPROVED AS NOTED

RESPONSE DATE _____ ATTACHED RESPONSE ON SHEET NO. _____

DATE TRANSMITTED _____
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RESPONSE DATE _____ ATTACHED RESPONSE ON SHEET NO. _____

DATE RECEIVED 11-3-89
☒ APPROVED ☐ APPROVED AS NOTED ☐ NOT APPROVED AS NOTED

COMMENTS:

MK-FERGUSON CO.
ALBUQUERQUE

DEC 19 1989

RECEIVED

J. Marcia
DOE VP MANAGER

12/18/89
DATE

SHEET NO. 1 OF 1

may be larger than necessary, however
the ~~impossibility~~ impracticality of obtaining
grid samples prohibits a more detailed
analysis.

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| | | PHICD | | | LINE |
| | | LEW | | | SWANKE |
| | | IRM | | | COOPD |
| | | JD | | | TEL |
| | | WDT | | | TOE |
| | | ICP | | | DEW |
| | | MA | | | OWS |
| | | SSIDC | | | MAE |
| | | | | | ESW |
| ORIG FILE | | | 10-1 | | |
| WORK FILE | | | DU059 | | |

Rob P.

NRC/UMT 3050-90-584
0490-0023

UNITED STATES

NUCLEAR REGULATORY COMMISSION

REGION IV

URANIUM RECOVERY FIELD OFFICE
BOX 25325
DENVER, COLORADO 80225

APR 10 1990

MK-FERGUSON CO.
ALBUQUERQUE

APR 18 1990

RECEIVED

URFO: PWM
Docket No. 40-WM39
040WM039470E

Mark L. Matthews, Acting Project Manager
Uranium Mill Tailings Project Office
U. S. Department of Energy
P. O. Box 5400
Albuquerque, New Mexico 87115

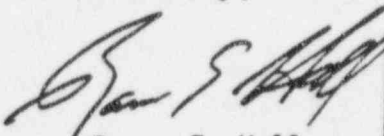
Dear Mr. Matthews:

The NRC has completed a review of the Radiological and Engineering Assessment (REA) for vicinity property DU-059S, Rev. 1, located in Durango, Colorado.

Based upon our review, we conclude that the criteria for applying supplemental standards have been met in accordance with 40 CFR 192.21(c). We agree that the steepness of the slopes where contamination is to be left in place makes development improbable and remedial actions excessively expensive when compared to the health benefits of remediation. The remedial actions performed on all the accessible areas where development could occur satisfies the requirements of 40 CFR 192.22(a).

We therefore concur with the application of supplemental standards as proposed in the REA for vicinity property DU-059S, Rev. 1. Should you have any questions, please contact Paul Michaud of my staff at FTS 776-2805.

Sincerely,


Ramon E. Hall
Director

| REP | INFO | DIST | REP | INFO | DIST |
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| | ✓ | JGO | | | PDC |
| | ✓ | JBH | | | MWH |
| | ✓ | WAZ | | ✓ | RAP |
| | ✓ | REC | | | MFP |
| | | CDW | | | FJF/MAKE |
| | | JBH | | | GG/PD |
| | | JJD | | | JEJ |
| | | MDT | | | TGS |
| | | JCP | | | DEW |
| | | DFB | | | JWS |
| | | SJS/DC | | | TGS |
| | | | | | RSW |
| ORIG. FILE 10-1 | | | | | |
| MAINT. FILE DU 059S | | | | | |

Case Closed: 040WM039470E

APPENDIX D
LEGAL DESCRIPTION

LEGAL DESCRIPTION

The property which is the subject of this Completion Report, the address of which is State Highway 160 and Roosa Avenue, Durango, Colorado, is more particularly described in the La Plata County Recorder's Office, as follows:

A tract of land in Lot 8 (SE1/4NE1/4), Lot 7 (SW1/4NE1/4) and Lot 9 (NE1/4SE1/4) of Section 30, T35N, R9W, N.M.P.M., La Plata County, Colorado, and being more particularly described as follows, to wit:

BEGINNING at a point whence the Northeast Corner of said Section 30 bears N22°23'21"E a distance of 1935.4 feet; thence S7°52'W a distance of 401.40 feet; thence S5°08'E a distance of 454.47 feet to the South boundary line of Lot 8 of said Section 30; thence N88°35'E a distance of 98.43 feet along the North boundary line of Lot 9 of said Section 30 to the West bank of the Animas River; thence S8°16'E a distance of 412.45 feet along the West bank of the Animas River to the Northerly right-of-way line of U.S. Highway No. 160; thence S79°28'W a distance of 38.59 feet along said North right-of-way line; thence along a non-tangent curve to the right with a delta angle of 22°39'58" a radius of 656.20 feet and an arc length of 259.60 feet, with a long chord bearing N89°12'W, a distance of 257.91 feet, along said right-of-way; thence N49°39'W, a distance of 97.13 feet, along said right-of-way; thence along a non-tangent curve to the right with a delta angle of 16° a radius of 616.20 feet and an arc length of 172.07 feet, with a long chord bearing North 61°52'W a distance of 171.51 feet, along said right-of-way; thence N79°00'W, a distance of 102.43 feet along said North right-of-way line; thence N38°21'W a distance of 34.62 feet; thence N51°13'E, a distance of 66.00 feet; thence N12°03'W a distance of 169.08 feet; thence S88°35'W, a distance of 16.1 feet to the Northwest Corner of Lot 9 of said Section 30; thence N0°01'E, a distance of 75.00 feet along the West boundary line of said Lot 8; thence N21°26'W, a distance of 281.43 feet; thence N50°00'E, a distance of 134.34 feet to the West boundary line of said Lot 8; thence N0°01'E a distance of 246.29 feet along the West boundary line of said Lots 7 and 8 to a fence line; thence N89°48'17"W a distance of 47.83 feet to a pin at a fence corner; thence N00°31'33"W a distance of 190.67 feet to a fence corner; thence N87°22'10"E a distance of 49.69 feet; thence East a distance of 499.42 feet, more or less, to the point of beginning, and containing 14.61 acres more or less.

TOGETHER WITH a non-exclusive right-of-way and easement for a roadway over, through and across a portion of Lot 8 of Section 30, T35N, R9W, N.M.P.M., and being more particularly described as follows, to wit:

Said right-of-way and easement to be 60 feet in width, lying and being 30 feet on each side of the following described centerline. Said side lines to be lengthened or shortened as required beyond the point of beginning and ending so as to run from the South boundary line of the present Cemetery Road to the North boundary line of the above described property.

BEGINNING at a point on the South boundary line of the present Cemetery Road, whence the NE corner of said Section 30, T35N, R9W, N.M.P.M., bears N25°29'E, 1664.39 feet; thence running from said point of beginning, S24°41'W, 178.1 feet to a point of curve; thence running along the arc of a 7.62° curve to the left, 173 feet more or less, to the North line of the above described property.

Together with a 20' utility easement to the City of Durango, being described along the following centerline. Beginning at a point on the Northerly right-of-way line of State Highway 160, whence the Southeast corner of the above described tract bears N85°06'37"E 198.36 feet; thence from said point of beginning N1°40'W a distance of 155.00 feet; thence N60°25'E a distance of 78.00 feet; thence N27°24'W a distance of 386.00 feet; thence S59°00'W a distance of 75.00 feet; thence N66°01'W a distance of 54.00 feet; thence N10°40'W a distance of 115.00 feet; thence N6°25'W a distance of 248.00 feet; thence N00°31'W a distance of 380.00 feet; thence East a distance of 241.00 feet to the east side of a road, and the point of termination.