# TABLE 2—*Uranium and other trace elements in crude oils*

[All analyses were made at the U.S. Geological Survey laboratories, Denver, Colo., under the direction of A. T. Myers, C. A. Horr, and D. L. Ferguson]

| Tracing No. | Field | Laboratory serial No. and collector [1] | Operator | Well | Location | Producing unit [2] | Geologic age of producing unit [2] | °API gravity | Carbon residue of crude oil [3] (percent) | Asphalt in crude oil [4] (percent) |
|---|---|---|---|---|---|---|---|---|---|---|
| | **Arkansas** | | | | | | | | | |
| 1 | Atlanta | 200802-A | Tidewater Associated Oil Co. | No. 1 Bonnie Davis | Columbia County, NW¼ sec. 17, T. 18 S., R. 19 W. | Smackover limestone | Jurassic | 41.5 | 0.4 [5 6 7] | 2.0 |
| 2 | Schuler | 200799-A | Lion Oil Co. | Unit No. 107 | Union County, SW¼SW¼ sec. 18, T. 18 S., R. 17 W. | Jones sand | do | 32.7 | 3.1 [5 7]; 4.0 [8] | 15.2; 19.6 |
| 3 | do | 200800-A | do | Unit No. 121 | Union County, NE¼NW¼ sec. 19, T. 18 S., R. 17 W. | do | do | 32.8 | | |
| 4 | Stephens-Smart | 200804-A | Phil Shipp | No. 1 Green | Columbia County, SW¼SE¼ sec. 11, T. 15 S., R. 20 W. | Travis Peak sand | Lower Cretaceous | 32.3 | 7.3 [6 7] | 35.8 |
| 5 | do | 200805-A | Sohio Petroleum Co. | No. 1 North-Central Texas. | Columbia County, NW¼NE¼NE¼ sec. 13, T. 15 S., R. 20 W. | do | do | 32.0 | | |
| | **California** | | | | | | | | | |
| 6 | Ant Hills | 224837-B | Amerada Petroleum Corp. | No. 41-42 Silfus | Kern County | Olcese sand of Temblor formation. | Miocene | | 7.1 [9 10] | 34.8 |
| 7 | Baldwin Hills | 224839-B | Standard Oil Co. of California. | No. 2-206 Vickers | Los Angeles County | Shallow zone sand | do | 13.3 | | |
| 8 | Coalinga | 224841-B | Tidewater Associated Oil Co. | No. 2-C | Fresno County, sec. 18, T. 20 S., R. 15 E | Sand at depth 2642-2709 ft. | do | 16.2 | | |
| 9 | Coles Levee | 224833-B | Richfield Oil Co. | No. 18-35 | Kern County, sec. 35, T. 30 S., R. 25 E. | Stevens zone sand | do | 34.1 | 3.0 [6 7 8] | 14.7 |
| 10 | Edna | 235033-C | Signal Oil Co. | Tank sample, all wells. | San Luis Obispo County | Sand zone in Monterey shale. | do | 13.2 | | |
| 11 | Elk Hills | 224834-B | | No. 51 Naval Petroleum Reserve. | Kern County, sec. 34, T. 20 S., R. 24 E. | Mulinia sand | | 22.7 | 4.5 [11] | 22.0 |
| 12 | Helm | 224842-B | Amerada Petroleum Corp. | Unit No. 35-27 | Fresno County, sec. 27, T. 16 S., R. 17 E. | Wyant sand | Miocene | 33.0 | 4.0 [6] | 19.6 |
| 13 | Long Beach | 224838-B | General Petroleum Corp. | No. 9 Blinn | Los Angeles County | Ranger sand | do | 13.8 | | |
| 14 | Midway field, Oxford pool. | 224836-B | Golden Bear Oil Co. | No. 10 | Kern County, NW¼NW¼NE¼ sec. 27, T. 31, R. 22 E. | Potter sand | do | 14.6 | | |
| 15 | Santa Maria | 91420-D | | Gibson crude tank sample. | Santa Barbara County | | | | 11.7 [6] | 57.3 |
| 16 | do | 224840-B | Union Oil Co. | No. 5 Mahoney | do | Sand zone in Monterey shale. | Miocene | 17.3 | 11.7 [6]; 11.2 [9] | 57.3; 54.9 |
| | **Colorado** | | | | | | | | | |
| 17 | Badger Creek | 96119-A | Triangle J Oil Co. | No. 1 Morris | Adams County, NE¼SW¼ sec. 27, T. 2 S., R. 57 W. | Dakota "D" sand | Cretaceous | 35.3 | | |
| 18 | do | 96120-A | Sinclair Oil & Gas Co. | No. 1 Causey | Adams County, SW¼NW¼ sec. 23, T. 2 S., R. 57 W. | Dakota "J" sand | do | 40.7 | | |
| 19 | Danforth Hills | 221041-C | Texas Co. | No. 1 Treleaven | Moffat County, NE¼SW¼SW¼ sec. 32, T. 5 N., R. 59 W. | Morrison (sand) | Jurassic | 32.7 | | |
| 20 | Dove Creek | 217871-C | Three States Natural Gas Co. | No. 2 White | Montezuma County SE¼SE¼ sec. 33, T. 39 N., R. 19 W. | Paradox formation | Pennsylvanian | 47.0 | | |
| 21 | Elk Springs | 217876-C | Continental Oil Co. | No. 1 M. V. Smith | Moffat County | Weber (sand) | do | 28.4 | 1.5 [12] | 7.4 |
| 22 | Florence | 207300-A | Hollingsworth | No. 6 Hollingsworth Fee Land. | Fremont County, SE¼NW¼NE¼ sec. 28, T. 19 S., R. 69 W. | Mancos shale | Cretaceous | 30.5 | 2.0 [13] (Pierre shale) | 9.8 |
| 23 | Gramps | 96122-A | L. M. Hughes | No. 15 Unit | Archuleta County, T. 33 N., R. 2 E. | Morrison (sand) | Jurassic | 31.6 | | |
| 24 | do | 96123-A | do | No. 19 Unit | do | Dakota (sand) | Cretaceous | 31.8 | | |
| 25 | Hiawatha | 96116-A | Mountain Fuel Supply Co. | No. 5 Wilson | Moffat County, SW¼NW¼ sec. 23, T. 12 N., R. 100 W. | Wasatch (sand) | Eocene | 45.1 | 1.2 [5 13 14 15] | 5.9 |
| 26 | do | 223234-C | do | do | do | do | do | 47.0 | | |
| 27 | Iles Dome | 69267-E | Stanolind Oil & Gas Co. | | Moffat County | | Jurassic | | | |
| 28 | do | 221042-C | do | (Sundance tank) | do | Sundance (sand) | do | 29.8 | 2.9 [13] | 14.2 |
| 29 | do | 221043-C | do | (Morrison tank) | do | Morrison (sand) | do | 30.7 | 3.2 [13] | 15.7 |
| 30 | Mauldin Gulch | 69265-E | Texas Co. | | do | | do | | | |
| 31 | do | 215286-C | do | Unit No. 4 | do | Sundance (sand) | do | 34.8 | | |
| 32 | do | 215287-C | do | Unit No. 5 | do | Morrison (sand) | do | 35.5 | | |
| 33 | Moffat Dome | 203735-A | do | No. 14 Knowlton | do | Shinarump (sand) | Triassic | 37.4 | | |
| 34 | do | 211044-C | do | do | do | do | do | 34.3 | | |
| 35 | do | 211045-C | do | No. 12 Knowlton | do | Sundance (sand) | Jurassic | 37.4 | 2.4 [13] | 11.8 |
| 36 | do | 211046-C | do | No. 3 Knowlton | do | Dakota (sand) | Cretaceous | 33.7 | 0.8 [13] | 3.9 |
| 37 | do | 211047-C | do | No. 2 Knowlton | do | Mancos shale (fracture zone). | do | 34.7 | | |
| 38 | Oak Creek | 235038-C | R. E. Havenstrite | No. 2 Ryles, tank (weathered). | Routt County, NW¼SW¼NE¼ sec. 2, T. 3 N., R. 86 W. | Shinarump (sand) | Triassic | 34.8 | 2.6 [16] | 12.7 |
| 39 | Powder Wash | 223233-C | Mountain Fuel Supply Co. | No. 3 Carl Allen | Moffat County | Wasatch (sand) | Eocene | 45.7 | 0.7 [13 15] | 3.4 |
| 40 | do | 235036-C | do | Ace No. 5 | do | do | do | 46.9 | | |
| 41 | Rangely | 69273-E | | | Rio Blanco County | | | | 2.8 [6 7]; 18 samples average 2.9 [17] | 13.7; 14.2 average |
| 42 | do | 92406-A | Continental Oil Co. | No. 2 D. Routh | Rio Blanco County: SW¼SW¼ sec. 15, T. 12 N., R. 103 W. | Shinarump (sand) | Triassic | 38.8 | | |
| 43 | do | 205778-A | Sharples Oil Corp. | No. 3-32 McLaughlin | SW¼NE¼ sec. 32, T. 2 N., R. 102 W. | | | 45.9 | | |
| 44 | do | 217873-C | Chatham Oil Co. | No. 3 | Rio Blanco County | Mancos shale (fracture zone). | Cretaceous | 39.1 | 0.3 [13] | 1.5 |
| 45 | do | 217874-C | Continental Oil Co. | No. 2 D. Routh | do | Shinarump (sand) | Triassic | 36.2 | | |
| 46 | do | 217875-C | Stanolind Oil & Gas Co. | No. 2 Larson "B" | do | Weber (sand) | Pennsylvanian | 30.0 | 0.6 [18] | 2.9 |
| 47 | Temple Canyon | 223232-C | Anderson-Pritchard Oil Corp. | No. 1 Government "A" | Moffat County, SE¼SE¼NE¼ sec. 17, T. 14 N., R. 95 W. | Morrison (sand) | Jurassic | 33.1 | | |
| 48 | White River Dome | 205775-A | S. McLaughlin | No. 2 (swab test) | Rio Blanco County, sec. 1, T. 1 N., R. 97 W. | Upper Wasatch (sand) | Eocene | 40.2 | | |
| 49 | do | 205776-A | do | do | Rio Blanco County | Middle Wasatch (sand) | do | 41.4 | | |
| 50 | do | 205777-A | do | do | do | Lower Wasatch (sand) | do | 41.5 | | |
| 51 | Wilson Creek | 69268-E | California Co. and Texas Co. | | do | | Jurassic | | | |
| 52 | do | 92409-A | do | Unit No. 16 | do | Sundance (sand) | do | 44.5 | | |
| 53 | do | 215288-C | do | Unit No. 5 | do | do | do | 46.0 | 0.6 [6 7] | 2.9 |
| 54 | (Not named) | 95260-D | | No. 1 Ojo | Huerfano County, corner, secs. 2, 3, 10, 11, T. 29 S., R. 69 W. | Trinidad sand | Cretaceous | | | |
| | **Kansas** | | | | | | | | | |
| 55 | Augusta | 16249-E | | No. 5 Hazlett | Butler County: SW¼SW¼NE¼ sec. 11, T. 28 S., R. 4 E. | Arbuckle limestone | Cambrian and Ordovician. | | | |
| 56 | do | 16253-E | | | Sec. 11, T. 28 S., R. 4 E. | | | | | |
| 57 | Brewster | 91693-A | E. W. Hayes, Hester & Wright. | No. 1 Universal Cement Co. | Montgomery County, SW¼NE¼ sec. 5, T. 33 S., R. 16 E. | Arbuckle limestone | Cambrian and Ordovician. | 22.6 | | |
| 58 | do | 91695-A | do | do | do | do | do | 23.7 | | |
| 59 | Brock | 91720-A | Phillips Petroleum Co. | Separator tank | Stafford County, NW¼SW¼ sec. 7, T. 23 S., R. 11 W. | do | do | 39.5 | | |
| 60 | Coffeyville | 200793-A | A. H. Clausing | No. 1 | Montgomery County, sec. 17, T. 33 S., R. 17 E. | do | do | 24.5 | | |
| 61 | Cunningham | 91710-A | Skelly Oil Co. | No. 2 John Miller | Kingman County, NW¼NW¼ sec. 31, T. 27 S., R. 10 W. | Lansing group (limestone). | Pennsylvanian | 32.1 | | |
| 62 | do | 91711-A | do | No. 1 South Maxedon | Pratt County, S½NE¼ sec. 25, T. 27 S., R. 11 W. | do | | 32.7 | | |
| 63 | Fox-Bush | 18337-E | | | Butler County, sec. 25, T. 28 S., R. 5 E. | | | | | |
| 64 | Graham | 82269-F | Continental Oil Co. | No. 3 Graham | Cowley County: SE¼NE¼ sec. 9, T. 33 S., R. 3E. | Arbuckle limestone | Cambrian and Ordovician. | | | |
| 65 | do | 82270-F | do | Bower lease, tank battery. | NW¼ sec. 10, T. 33 S., R. 3 E. | Arbuckle limestone and Bartlesville sand. | Cambrian and Ordovician, and Pennsylvanian. | | | |
| 66 | Hittle | 90303-A | Texas Co. | No. 1 well, sample from tank. | NW¼SE¼ sec. 28, T. 31 S., R. 4 E. | Arbuckle limestone | Cambrian and Ordovician. | 37.6 | | |
| 67 | do | 90306-A | do | No. 2, tank battery | Sec. 21, T. 31 S., R. 4 E. | do | do | 37.6 | | |
| 68 | do | 90307-A | do | No. 2 well, sample from tank. | do | Peru sand | Pennsylvanian | 37.6 | | |
| 69 | Iola | 91721-A | Forbes Cross | No. 1 Forbes Cross | Edwards County, SE¼SW¼ sec. 3, T. 24 S., R. 18 E. | Upper Bartlesville sand | do | 19.5 | | |
| 70 | do | 91722-A | do | do | do | do | do | 19.9 | | |
| 71 | McLouth | 91708-A | Bankers Life | No. 6 Bankers Life | Leavenworth County, NE¼SW¼ sec. 2, T. 10 S., R. 20 E. | McLouth sand | do | 25.6 | 10.3 [19] (No. 1 Bankers Life). | 50.5 |
| 72 | North Augusta | 15616-E | | | Butler County: NE¼NE¼SE¼ sec. 9, T. 27 S., R. 4 E. | Arbuckle limestone, Kansas City (limestone). | Cambrian and Ordovician, Pennsylvanian. | | | |
| 73 | do | 82271-F | | Foster Lease, tank battery. | NE¼ sec. 21, T. 27 S., R. 4 E. | | | | | |
| 74 | Otis-Albert | 16236-E | | | Rush County: Sec. 35, T. 18 S., R. 16 W. | | | | | |
| 75 | do | 17912-E | | No. 2 Koriel B | SW¼ sec. 23, T. 18 S., R. 15 W. | Arbuckle limestone | Cambrian and Ordovician. | | | |
| 76 | do | 91715-A | Flynn Oil Co | No. 2 Crowell | NE¼ sec. 23, T. 18 S., R. 16 W. | Reagan sand | Cambrian | 31.5 | | |
| 77 | do | 91723-A | do | Separator tank | | | | 30.0 | | |
| 78 | Otto | 18345-E | | | Cowley County, sec. 12, T. 34 S., R. 6 E. | | | | | |
| 79 | Pawnee Rock | 91712-A | Amerada Petroleum Corp. | No. 3 Jantzen | Rush County, SW¼ sec. 25, T. 20 S., R. 16 W. | Arbuckle limestone | Cambrian and Ordovician. | 36.2 | | |
| 80 | do | 91713-A | do | Deckert D | Barton County, SW¼NW¼ sec. 8, T. 20 S., R. 15 W. | do | do | 35.9 | | |
| 81 | Solomon | 91718-A | Skelly Oil Co. | No. 2 Vine E | Ellis County: SE¼SE¼NE¼ sec. 22, T. 11 S., R. 19 W. | do | do | 24.0 | | |
| 82 | do | 247608-C | do | No. 2 Vine C | NW¼SW¼SW¼ sec. 27, T. 11 S., R. 19 W. | do | do | 13.1 | | |
| | **Montana** | | | | | | | | | |
| 83 | Bears Den | 210525-A | Zoeller & Watford | No. 1 | Liberty County, NW¼NW¼ sec. 17, T. 35 N., R. 6 E. | Sunburst (sand) | Lower Cretaceous | 37.7 | | |
| 84 | Big Wall | 96075-A | Texas Co. | No. 2 Quinell | Musselshell County: Sec. 24, T. 10 N., R. 26 E. | Amsden(?) (sand) | Pennsylvanian(?) | 29.4 | | |
| 85 | do | 96076-A | do | No. 3 Northern Pacific Railroad. | NW¼SW¼ sec. 19, T. 10 N., R. 27 E. | do | do | 29.2 | | |
| 86 | Elk Basin | 96077-A | Stanolind Oil & Gas Co. | Unit No. 15 | Carbon County, SW¼NE¼ sec. 35, T. 9 S., R. 23 E. | Tensleep (sand) | Pennsylvanian | 26.3 | 3.9, [20] 4.1, [6 7] 3.4, 3.7, 4.0, 4.1, 5.1 [21]. | 19.1, 20.1, 16.7, 18.1, 19.6, 20.1, 22.9. |
| 87 | Flat Coulee | 201523-A | Northern Petroleum Co. | No. 2 Northern Farms | Liberty County, NE¼SW¼ sec. 10, T. 37 N., R. 5 E. | Sunburst (sand) | Lower Cretaceous | 37.0 | | |
| 88 | Soap Creek | 96073-A | Montana Petroleum Products Refinery & Production Co. | No. 3-8 Crow Tribal | Bighorn County, sec. 34, T. 6 S., R. 32 E. | Tensleep (sand) | Pennsylvanian | 18.6 | | |
| 89 | Whitlash | 201524-A | Bingham & Barnett | No. 2 Shaffer | Liberty County, NW¼SE¼ sec. 14, T. 37 N., R. 4 E. | Ribbon sand | Jurassic | 38.8 | | |
| | **Nevada** | | | | | | | | | |
| 90 | Eagle Springs | 224843-A | Shell Oil Co. | Unit No. 1 | Nye County, SE¼NE¼NW¼ sec. 35, T. 9 N., R. 57 E. | | | 27.2 | | |
| 91 | do | 235030-C | do | do | do | | | 24.9 | | |
| | **New Mexico** | | | | | | | | | |
| 92 | Rattlesnake | 96128-A | Continental Oil Co. | Unit No. 134 | San Juan County: SW¼ sec. 2, T. 29 N., R. 19 W. | Dakota (sand) | Cretaceous | 61.1 | | |
| 93 | do | 96129-A | do | Unit No. 50 | NE¼ sec. 2, T. 29 N., R. 19 W. | do | do | 57.7 | | |
| 94 | do | 217869-C | do | Unit No. 81 | San Juan County | Third Dakota sand | do | 62.8 | | |
| 95 | do | 217870-C | do | Units Nos. 50 and 92. | do | First Dakota sand | do | 65.6 | | |
| 96 | Table Mesa | 96127-A | do | (Tank sample) | do | Dakota (sand) | do | 53.7 | Less than 0.1 [22] | |
| | **Oklahoma** | | | | | | | | | |
| 97 | Apache | 79905-F | | No. 1 Z. N. Smith | Caddo County: Sec. 2, T. 5 N., R. 12 W. | Wilcox sand | Ordovician | 40.0 | 1.5 [6 23] | 7.4 |
| 98 | do | 79906-F | | No. 4 N. B. Smith | Sec. 3, T. 5 N., R. 12 W. | do | do | 28.0 | | |
| 99 | Cement | 82267-F | Amerada Petroleum Corp. | B. F. Estes Lease, (tank sample). | Sec. 10, T. 5 N., R. 9 W. | | | | | |
| 100 | do | 86635-F | Anderson-Pritchard Oil Corp. | | T. 5 N., R. 10 W. | Marchand sand | Pennsylvanian | 13.7 | | |
| 101 | do | 86636-F | do | | do | do | do | 15.5 | | |
| 102 | do | 86637-F | do | | do | do | do | 18.6 | | |
| 103 | do | 256164-G | do | No. 1 Estes | NE¼NE¼SW¼ sec. 10, T. 5 N., R. 9 W. | do | do | 12.5 | | |
| 104 | do | 256165-G | | No. 13 Wade | SW¼NE¼SE¼ sec. 2, T. 5 N., R. 9 W. | Noble-Olsen zone | Permian | 33.1 | | |
| 105 | do | 256166-G | | No. 3 Adelia | SW¼NE¼SE¼ sec. 2, T. 5 N., R. 9 W. | Fortuna sand | do | 35.3 | | |
| 106 | do | 256167-G | Texas Consolidated Co. | No. 2A City Park | NW¼NW¼SE¼ sec. 3, T. 5 N., R. 9 W. | Noble-Olsen zone sand | do | 32.7 | | |
| 107 | do | 256168-G | Graham Oil Co. | No. 1A Surbeck | SW¼NW¼SW¼ sec. 2, T. 5 N., R. 9 W. | Noble-Olsen(?) (sand) | do | 33.1 | | |
| 108 | do | 256169-G | Texas Consolidated Co. | No. 1 Wilson | NW¼SE¼ sec. 3, T. 5 N., R. 9 W. | do | do | 33.9 | | |
| 109 | do | 256170-G | | No. 1A Dixon | SE¼SE¼NW¼ sec. 3, T. 5 N., R. 9 W. | Fortuna sand | do | 35.4 | | |
| 110 | do | 256171-G | Ohio Oil Co. | No. 4 Marchand | SW¼SE¼NW¼ sec. 2, T. 5 N., R. 9 W. | Marchand sand | Pennsylvanian | 30.1 | | |
| 111 | do | 256172-G | Cheyenne Oil Co. | No. 1 Wade | NE¼NW¼SE¼ sec. 2, T. 5 N., R. 9 W. | Fortuna sand | Permian | 30.7 | | |
| 112 | Kendrick | 200810-A | Mid-Continent | No. 6 Sanders | Lincoln County: NE¼NE¼NW¼ sec. 10, T. 15 N., R. 5 E. | Fort Scott limestone | Pennsylvanian | 40.0 | | |
| 113 | do | 200812-A | do | No. 2 Sanders | do | do | do | 46.9 | | |
| 114 | Lafoon | 200808-A | Allied Materials Corp. | No. 2 Peck | SE¼NW¼ sec. 35, T. 14 N., R. 6 E. | Wilcox sand | Ordovician | 23.5 | | |
| 115 | Middle Gilliland | 91707-A | Nadel & Lebow | No. 3 Big Elk | Osage County: NW¼ sec. 32, T. 23 N., R. 7 E. | Hominy sand | do | 36.3 | | |
| 116 | Naval Reserve | 200796-A | O. A. Shaw | No. 1 Osage | SW¼SW¼SE¼ sec. 34, T. 24 N., R. 7 E. | Burbank sand | Pennsylvanian | 37.5 | 1.4 [23] | 6.9 |
| 117 | do | 200798-A | do | No. 4 Osage | SW¼NW¼SE¼ sec. 34, T. 24, N., R. 7 E. | do | do | 39.9 | | |
| 118 | New England | 91705-A | Nadel & Lebow | No. 2 Rogers | NW¼ sec. 19, T. 25 N., R. 9 E. | Burgess sand | Mississippian | 43.7 | 0.8 [23] | 3.9 |
| 119 | Nowata | 224895-H | Sinclair Oil & Gas Co., and Climax Molybdenum Corp. | Tank, secondary recovery. | Nowata County: NW¼ sec. 6, T. 25 N., R. 17 E. | Bartlesville sand | Pennsylvanian | 34.0 | | |
| 120 | do | 224896-H | do | do | Secs. 31, 32, T. 26 N., R. 17 E. | do | do | 33.4 | | |
| 121 | do | 224897-H | do | do | SW¼ sec. 21, T. 25 N., R. 17 E. | do | do | 36.0 | | |
| 122 | do | 224898-H | do | do | Rogers County: NW¼ sec. 3, T. 24 N., R. 17 E. | do | do | 34.6 | | |
| 123 | do | 224899-H | do | do | SE¼SW¼ sec. 9, T. 24 N., R. 17 E. | do | do | 35.9 | | |
| 124 | do | 224900-H | do | do | Nowata County, NW¼ sec. 6, T. 26 N., R. 17 E. | do | do | 34.7 | | |
| 125 | Osage City | 91696-A | Sinclair Oil & Gas Co. | No. 20 and No. 67 separator tank. | Osage County: NW¼SE¼ sec. 12, T. 21 N., R. 8 E. | Buzzard sand | do | 36.7 | 1.4 [23] | 6.9 |
| 126 | do | 91698-A | W. Elson | No. 11 Duncan | SW¼ sec. 18, T. 24 N., R. 10 E. | Bartlesville sand | do | 37.3 | 1.2 [23] | 5.9 |
| 127 | do | 91700-A | E. L. Conley | No. 13 | NW¼ sec. 19, T. 24 N., R. 10 E. | do | do | 36.5 | | |
| 128 | Pond Creek | 90308-A | Winona Oil Co. | Wells Nos. 1, 2, and 3, tank sample. | SE¼NE¼ sec. 3, T. 28 N., R. 10 E. | Arbuckle limestone | Cambrian and Ordovician. | 27.5 | 2.8 [23] | 13.7 |
| 129 | Randlett | 217158-G | | | Cotton County, NW¼ sec. 16, T. 5 S., R. 12 W. | Wichita-Garber (sand) | Permian | | | |
| 130 | Turley | 90301-A | Sunray Oil Co. | Tank battery, 4 wells | Osage & Tulsa Counties, SE¼ sec. 15, N½ sec. 22, N½ sec. 23, T. 20 N., R. 12 E. | Lower Bartlesville sand | Pennsylvanian | 31.7 | 1.7 [23] | 8.4 |
| 131 | Vinita | 98745-G | | Karney Lease, tank sample. | Craig County, T. 26 N., R. 20 E. | Cherokee | Pennsylvanian | | | |
| 132 | Wildhorse | 91701-A | Sunray Oil Co. | No. 25 | Osage County, NW¼ sec. 33, T. 22 N., R. 10 E. | Cleveland sand | do | | 1.9 [23] | 9.3 |
| 133 | | 82265-F | | | Kiowa County, SW¼NE¼ sec. 14, T. 5 N., R. 15 W. | Pontotoc (sand) | Pennsylvanian and Permian. | | | |
| | **South Dakota** | | | | | | | | | |

| Tracing No. | Ash in oil (percent) | U in ash (percent) | U in oil (parts per billion) | Composition of ash by spectrochemical analysis (percent): V | Ni | Cu | Co | Pb | Zn | Cr | Mo | Mn | La | Composition of ash by spectrochemical analysis (percent), Other elements: xx. | x. | 0.x | 0.0x | 0.00x | 0.000x | Tracing No. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | **Arkansas** | | | | | | | | | | | | | | | | | | | |
| 1 | 0.0005 | 0.0065 | 0.3 | 0.0x | 0.0x | 0.x | 0.0x | 0.0x | 0.x | 0.0x | | 0.0x | | | Al, Fe, Ca, Mg, Na | Ti, As, Ba | B, Sr | Ag, Zr | | 1 |
| 2 | .0414 | .0006 | 2.5 | x. | x. | .x | .0x | .0x | .x | .0x | | .0x | .0x | Ca | Mg, Na | Al, Fe, Ce, Sr | Ti, Ba, Zr | Ga | | 2 |
| 3 | .0059 | .0003 | .2 | | | | | | | | | | | | | | | | | 3 |
| 4 | .003 | .0004 | .1 | | | | | | | | | | | | | | | | | 4 |
| 5 | .0042 | .0012 | .5 | x. | x. | .x | .0x | .x | .x | .0x | .0x | .0x | .0x | | Al, Fe, Ca, Mg, Na | Ti, As, Ba, Ce, Sr | Sn, Zr | Ga | | 5 |
| | **California** | | | | | | | | | | | | | | | | | | | |
| 6 | 0.0953 | 0.0004 | 3.8 | x. | x. | | 0.x | 0.0x | | 0.00x | | 0.0x | | | Al, Fe | Ti, Ca, Mg | Ba | Ga, Sr | | 6 |
| 7 | .4188 | .0009 | 37.7 | x. | x. | 0.0x | .0x | | | .0x | 0.0x | | | | Fe, Ca, Mg | Al, Ti | Ba, Sr | Ga | | 7 |
| 8 | .0073 | .0003 | .2 | x. | xx. | .0x | .x | .0x | | .0x | .0x | .0x | 0.0x | | Fe, Ca | Al, Mg | Ti, Ba, Ga, Sr | | | 8 |
| 9 | .0072 | .0001 | 0.1 | x. | xx. | .0x | .x | | | .00x | .00x | | | | Fe | Al, Ca, Mg | Ti, Ba, Ga, Sr | | | 9 |
| 10 | .0536 | .0003 | 1.6 | x. | xx. | .0x | .x | .0x | .0x | .x | .0x | .0x | | Na | Fe, Ca, Mg | Al, Ti, Ga | B, Ba, Sr | Zr | | 10 |
| 11 | .0548 | .0003 | 1.6 | x. | x. | .0x | .x | .0x | | .00x | .00x | .0x | | | Fe, Ca, Mg | Al | Ti, Ga, Sr | Ba | | 11 |
| 12 | .0035 | .0002 | .1 | xx. | x. | .0x | .x | .0x | | .0x | | | | | Al, Fe, Sn | Ca | Ti, Mg, Ba | Ga, Sr | | 12 |
| 13 | .1150 | .0002 | 2.3 | x. | x. | .00x | .0x | | | .0x | .0x | | | | Fe, Ca, Mg | Al, Ba | Ti, Ga, Sr | | | 13 |
| 14 | .118 | .0012 | 1.4 | x. | x. | .0x | .x | | | .x | .0x | .0x | | Al | Fe, Ca, Mg | Ti, Ba | Ga, Sr, Zr | | | 14 |
| 15 | .039 | .0008 | 3.1 | .x | x. | .0x | .0x | .0x | .0x | .0x | .0x | .00x | | | Fe, Na | Si, Ca, Mg, Sn | Al, Ti, Ba, Sr | B, Ga, Zr | | 15 |
| 16 | .0580 | .0006 | 3.5 | xx. | xx. | .00x | .0x | | | .x | .x | .00x | | | Al | Fe, Ti, Ga | Ca, Mg | | Ba | 16 |
| | **Colorado** | | | | | | | | | | | | | | | | | | | |
| 17 | 0.0003 | 0.0117 | 0.3 | x. | x. | 0.x | 0.x | 0.x | x. | 0.0x | | 0.0x | 0.x | | Fe, Ca, Na, Ce | Al, Mg, Nd | Ba, Sn, Sr | Ag | | 17 |
| 18 | .0003 | .0097 | .3 | .x | x. | x. | .x | .x | .x | .0x | | .0x | .x | | Al, Fe, Ca, Na | Ti, Mg, Ce, Nd | Ba, Sn, Zr | Sr | | 18 |
| 19 | .0002 | .0105 | .2 | xx. | x. | x. | .00x | .x | x. | .0x | | .0x | | | Al, Fe, Ca, Na | Ti, Mg | Ba, Sn, Zr | Ag, Sr | | 19 |
| 20 | .0013 | .0026 | .3 | | .0x | x. | .00x | x. | | .00x | | .00x | | Ca | Mg, Na | Al, Fe, Sr | Ba, Sn | Ti, Ag | | 20 |
| 21 | .0026 | .0013 | .3 | xx. | x. | .x | .0x | .0x | | .0x | 0.00x | .0x | | | | Fe, Ca, Mg | Al | Ti, Ba, Ga, Sr, Zr | Ag | 21 |
| 22 | .0003 | .0008 | .1 | | | | | | | | | | | | | | | | | 22 |
| 23 | .0005 | .006 | .3 | x. | xx. | .x | .x | .0x | .x | .0x | .0x | .0x | | | Fe | Al, Ti, Ca, Mg, Na, As, Ce. | Ba, Ga, Zr | Sn | | 23 |
| 24 | .0010 | .0017 | .2 | x. | x. | .x | .x | .0x | .x | .0x | .00x | .0x | .x | | Al, Fe, Na | Ca, Mg, As, Ce, Nd | Ti, Ba, Ga, Sr, Zr | Sn | Ag | 24 |
| 25 | .0001 | | | x. | x. | x. | .0x | .x | .x | .0x | .00x | .0x | .x | | Al, Fe, Ca, Na | Ti, Mg, Ce, Nd | Ba, Sn, Sr, Zr | Ag | | 25 |
| 26 | .0007 | .0014 | .1 | .x | .x | .x | .00x | .0x | | .0x | | .0x | | Na | Fe, Ca | Al, Mg | Ti, Ba, Sr | Nb, Sn, Zr | Be | 26 |
| 27 | .0009 | .002 | 1.8 | .x | .x | .x | .x | .x | x. | .x | | .0x | .0x | Si, Al | Fe, Ca, Na, Ba | Ti, Mg, K, B, Sr | Ce | Ga, Sc, Sn, Y | | 27 |
| 28 | .0002 | .0077 | .1 | x. | x. | xx. | .00x | x. | x. | .0x | .0x | .0x | | | Fe, Ca, Na | Al, Ti, Mg, As, Ba, Sn | Sr | Ag, Ga, Zr | | 28 |
| 29 | .0002 | .0026 | .1 | x. | x. | .x | .00x | x. | x. | .0x | | .0x | | | Fe, Ca, Mg, Na | Al | Ti, Ba, Sn | Ag, Sr | | 29 |
| 30 | .0015 | .001 | .1 | .0x | .x | .00x | .0x | .0x | | .0x | | .00x | | Ca, Ba | Si, Mg | Al, Fe, Na, Sr | | Ti, B | | 30 |
| 31 | .0034 | .0009 | .3 | .x | .x | .x | | .x | x. | .0x | .00x | .0x | | | Al, Fe, Ca | Mg, Ba, Sr | Ti | Ag, Sn, Zr | | 31 |
| 32 | .0007 | .0026 | .2 | x. | .x | .x | | .0x | .x | .0x | .00x | .0x | .0x | Na | Fe | Al, Ca, Mg, Ce | Ti, Ag, Ba, Nd, Sr | Sn, Zr | | 32 |
| 33 | .0013 | .0007 | .1 | .x | .0x | .0x | .000x | .x | .x | .00x | .00x | .0x | .00x | | Al, Fe, Ca, Mg, K | Ti | B, Ba, Sn, Sr | Y, Zr | Ag, Ga, Yb | 33 |
| 34 | .0026 | .0005 | 1 | .x | .x | x. | .00x | x. | x. | .0x | | .0x | | Ba | Al, Fe, P, Ca, Na | Ti, Mg, Sn | Cd, Sr | Ag, Zr | | 34 |
| 35 | .0002 | .0073 | .1 | x. | x. | .x | .00x | .x | .x | .0x | | .0x | | | Al, Fe, Ca, Mg, Na | Ti, Ba | Cd, Sn, Sr, Zr | Ag | | 35 |
| 36 | .0004 | .0055 | .2 | x. | x. | x. | .0x | .x | x. | .0x | | .0x | | | Al, Fe, Na | Ca, Mg | Ti, Ba, Sn | Ag, Sr | | 36 |
| 37 | .0008 | .002 | .2 | .x | x. | xx. | .0x | .x | x. | .0x | .0x | .0x | | | Al, Fe, Ca, Ba | Ti, Mg, Na, Sn | Ag, B, Cd, Zr | Sr | | 37 |
| 38 | .0004 | .0022 | .1 | .x | .x | .x | .00x | xx. | x. | .0x | .00x | .x | | Na | Fe, Ca, Mg | Al, Ba | Ti, Sn, Sr | | | 38 |
| 39 | .0001 | | | .x | x. | x. | .0x | .x | x. | .0x | | .0x | | Na | Al, Fe, Ca, Mg, As | Ti, Ba | Sr, Zr | Ag | | 39 |
| 40 | .0001 | .0120 | .1 | .x | x. | .x | .0x | .x | x. | .0x | .0x | .0x | | As | Fe, Ca, Mg, Na, Ba | Al | Ti, B | Sr | | 40 |
| 41 | .006 | .001 | .6 | .x | .x | .x | .00x | .0x | | .00x | .00x | | | Na | Ca, Mg | Si, Al, Fe, Sr | Ti, Ba | B | Sn | 41 |
| 42 | .0002 | .0005 | .1 | | | | | | | | | | | | | | | | | 42 |
| 43 | .0022 | .0015 | .3 | .x | .x | .x | .0x | x. | x. | .0x | .0x | .0x | .0x | Fe | Al, Ca, Ba | Ti, Mg, Ce, Sn | Sr | Ag | | 43 |
| 44 | .0009 | .0032 | .3 | .x | x. | .x | .0x | x. | .x | .0x | .00x | .x | | Fe | Al, Ca, Na | Mg, Ba | Ti, Sr | Sn, Zr | Ag | 44 |
| 45 | .0003 | .0032 | .1 | .x | .x | x. | | .x | .x | .0x | | .0x | | | Al, Fe, Ca, Mg, Na | Ba, Sr | Ti, Zr | | Ag | 45 |
| 46 | .0006 | .0084 | .5 | xx. | x. | x. | .0x | .x | .x | .0x | | .0x | | | Ca, Na | Al, Fe, Mg | Ti, Sr | Ba, Zr | Ag | 46 |
| 47 | .0002 | .0069 | .1 | x. | x. | x. | .00x | .x | x. | .0x | | .0x | | | Al, Fe, Ca, Mg, Na | Ti | Ba, Nb, Zr | Sr | | 47 |
| 48 | .0322 | .0005 | 1.6 | .0x | .0x | .x | .00x | .x | x. | .0x | | .x | | Fe, Ca | Al | Mg, Ba, Sn | Ti, Sr | | | 48 |
| 49 | .0006 | .0013 | .1 | | | | | | | | | | | | | | | | | 49 |
| 50 | .0019 | .0005 | .1 | .x | .x | .x | .0x | .x | x. | .0x | .0x | .x | .0x | Fe | Al, Ca, Sn | Ti, Mg, Ce, Sr | Ba | Ag | | 50 |
| 51 | .0001 | .001 | .1 | .00x | .0x | .0x | .0x | .0x | | .0x | .00x | .0x | | Ca | Si, Fe, Mg, Ba | Al, Na, Sr | | Ti, B | Sn | 51 |
| 52 | .0048 | .007 | 3.4 | | | | | | | | | | | | | | | | | 52 |
| 53 | .0005 | .0044 | .2 | .0x | .0x | .x | .x | .0x | .x | .00x | | .00x | .0x | Na | Ca | Al, Fe, Mg, Ba, Ce | Ti, Ag, B, Sn, Sr | Zr | | 53 |
| 54 | .0004 | .001 | .1 | .0x | .x | .x | .00x | .x | xx. | .0x | .000x | .0x | .x | | Fe, Ca, Na | Al, Mg, Ce, Nd, Sr | Ti, B, Ba, Sn | Sc, Zr | Yb | 54 |
| | **Kansas** | | | | | | | | | | | | | | | | | | | |
| 55 | 0.002 | 0.0012 | .2 | x. | x. | 0.x | 0.x | 0.x | 0.x | x. | 0.00x | 0.0x | | | Si, Al, Ca, Mg, Na, Ba | Fe, Ti | B, Sr, Sn | Ag | Be | 55 |
| 56 | .005 | | | x. | x. | x. | .00x | .x | .x | .x | | .0x | 0.0x | Ca, Na | Si, Fe, Mg, Sr | Al, Ti, Ba | B, Sn | | | 56 |
| 57 | .0016 | .0014 | .2 | x. | x. | x. | .00x | .0x | | .00x | | .00x | .0x | | Ca, Mg, Na | Al, Fe | Ti, Ba, Ce, Sr | | Ga | 57 |
| 58 | .0013 | .0278 | 3.5 | x. | xx. | .0x | .00x | .0x | | .0x | | .0x | .0x | | Ca, Mg, Na | Al, Fe, As, Ce | Ti, B, Ba, Nd, Sr | Ga, Zr | | 58 |
| 59 | .0034 | .0013 | .4 | x. | x. | .0x | .0x | .0x | .x | .0x | .00x | .0x | .00x | Fe | As | Al, Ca, Mg, Na | Ti, Ba, Ce | B, Sr | Ag, Ga | 59 |
| 60 | .0024 | .0012 | .3 | x. | x. | .x | .0x | .0x | .x | .00x | .00x | .x | | Fe | Al, Ca, Na | Ti, Mg, As, Ba, Sr | Sn, Zr | Ga | | 60 |
| 61 | .013 | .0008 | 1.0 | xx. | xx. | .x | .0x | .00x | .0x | .00x | | .00x | | | | Fe, Ca, Mg, Na | Al, Ce, Sr | Ti, Ba | Ga | 61 |
| 62 | .008 | .0005 | .4 | xx. | xx. | .0x | .0x | .00x | .0x | .00x | | .00x | | | | Fe, Ca, Mg, Na | Al, Ti, Ce, Sr | Ba | Ga | 62 |
| 63 | .0005 | | | x. | x. | xx. | .00x | .x | .x | .0x | .00x | .0x | | | Si, Al, Ca, Mg, Na, Ba | Fe, Ti, Sr | B, Sn | Ag | | 63 |
| 64 | .001 | .0008 | .1 | x. | x. | .x | .00x | .0x | | .00x | .00x | .0x | .00x | Na | Si, Fe, Ca | Al, Mg, K, Sr | Ti, Ba, Zr | B, Sn | | 64 |
| 65 | .003 | .0007 | .2 | .x | .x | .x | .00x | .00x | | .00x | .00x | .00x | .00x | Fe, Na | Ca | Si, Al, Mg, K, Ba, Sr | | Ti, Sn, Zr | | 65 |
| 66 | .0005 | .0014 | .1 | | | | | | | | | | | | | | | | | 66 |
| 67 | .0010 | .0003 | .1 | | | | | | | | | | | | | | | | | 67 |
| 68 | .0014 | .002 | .3 | | | | | | | | | | | | | | | | | 68 |
| 69 | .13 | .0002 | 2.6 | .x | .x | .00x | .00x | | | .00x | | .00x | | Na | Ca | Al, Fe, Mg, Ba, Sr | | Ti, B | | 69 |
| 70 | .015 | .0001 | .1 | x. | x. | .0x | .0x | .00x | | .00x | | .00x | | | Na | Al, Ca, Mg | Fe, Ti, Ba, Ce, Sr | B | | 70 |
| 71 | .0021 | .0051 | 1.1 | .x | xx. | .0x | .0x | .0x | .x | .0x | .00x | .00x | .0x | | Na | Al, Fe, Ca, Mg | Ba, Ce, Sr | B, Zr | Ti, Be | 71 |
| 72 | .002 | .0007 | .1 | x. | x. | .x | .00x | .0x | .0x | .0x | .00x | .0x | | Na | Fe, Mg, Ca, Sr | Si, Al, Ba | Ti, Sn | | Ag, Ga | 72 |
| 73 | .005 | .0013 | .6 | x. | xx. | .x | .0x | .x | .0x | .00x | .00x | .00x | | | Si, Fe, Na | Al, Ca, Mg, Sr | Ti, Ba, Sn, Zr | B | | 73 |
| 74 | .0025 | | | x. | x. | .0x | .0x | .x | .x | .x | .00x | .0x | .0x | | Si, Al, Ca, Na | Fe, Ti, Mg, Ba | B, Ce, Nd, Sr, Sn | | | 74 |
| 75 | .0075 | .0032 | 2.4 | x. | x. | .x | .0x | .x | .x | .0x | | .x | | | Si, Fe, Ca, Mg | Al, Ti, Na, Ba | B, Sr | Sc | | 75 |
| 76 | .0097 | .0003 | .3 | xx. | x. | .0x | .0x | .00x | | .0x | .00x | .00x | | Na | | Al, Fe, Ca, Mg | Ti, Ba, Ce | | Ga | 76 |
| 77 | .013 | .0004 | .5 | xx. | x. | .0x | .0x | .0x | | .00x | .00x | .0x | | | Fe, Na | Al, Ca, Mg, Ba, Sr | Ti, Ce | B, Sn | Ga | 77 |
| 78 | .002 | .0008 | .2 | x. | x. | .x | .x | .0x | .x | .0x | .00x | .0x | | Na | Si, Ca, Mg | Al, Fe, Ti, Ba, Sr | | | | 78 |
| 79 | .014 | .0004 | .6 | x. | x. | .0x | .0x | .00x | | .0x | | .00x | | | Ca | Al, Fe, Mg | Ce, Sr | Ti, Ba | Ga | 79 |
| 80 | .0675 | .0002 | 1.3 | x. | .x | .0x | .00x | .00x | | .000x | | .00x | | | Ca | Al, Mg | Fe, Ti, Sr | Ba | | 80 |
| 81 | .103 | .0002 | 2.1 | .x | .x | .00x | .00x | | | .00x | .00x | .00x | | Na | Ca | Mg | Al, Fe, Ti, Ce, Sr | Ba | | 81 |
| 82 | 1.558 | .0002 | 31.1 | .x | .x | .00x | | | | | .0x | | | Ca, Na | Mg | Sr | Al, B | Fe, Ba, Cu | | 82 |
| | **Montana** | | | | | | | | | | | | | | | | | | | |
| 83 | .0011 | .010 | 1.1 | | | | | | | | | | | | | | | | | 83 |
| 84 | .012 | .0002 | .2 | xx. | xx. | 0.0x | 0.0x | 0.0x | | 0.0x | 0.00x | 0.00x | | | Na | Al, Fe, Ca, Mg | Sr, Zr | Ba, Ga | | 84 |
| 85 | .0133 | .0132 | 17.6 | | | | | | | | | | | | | | | | | 85 |
| 86 | .010 | .0003 | .3 | xx. | xx. | .x | .00x | .0x | .0x | .0x | .00x | .0x | | | | Al, Fe, Ca, Mg | Na | Ba, Ga, Sr | | 86 |
| 87 | .0013 | .0023 | .3 | | | | | | | | | | | | | | | | | 87 |
| 88 | .044 | .0018 | 7.9 | xx. | x. | .0x | .0x | .00x | | .0x | .0x | .00x | | | | Fe, Ca | Al, Mg | Ba, Ga | Sr | 88 |
| 89 | .0006 | .0019 | .1 | | | | | | | | | | | | | | | | | 89 |
| | **Nevada** | | | | | | | | | | | | | | | | | | | |
| 90 | 0.0012 | 0.0006 | 0.1 | | | | | | | | | | | | | | | | | 90 |
| 91 | .0071 | .0011 | .8 | x. | xx. | 0.0x | 0.0x | 0.x | 0.0x | 0.0x | 0.0x | 0.0x | 0.x | Ni | | Al, Fe, Mg, Ba, Ce, Nd | Ti, Ga, Sr, Y | Ag, Be, Sc | | 91 |
| | **New Mexico** | | | | | | | | | | | | | | | | | | | |
| 92 | 0.0003 | 0.006 | 0.2 | 0.0x | 0.0x | 0.x | 0.0x | 0.0x | | 0.00x | | 0.x | | | Al, Fe, Ca, Mg | Ti, Na, Ba | Sr, Zr | Y | | 92 |
| 93 | .0010 | .0032 | .3 | .0x | .0x | xx. | .0x | .0x | x. | .00x | | .0x | | | Fe, Ca | Al, Mg, Na | Ti, Ba | Sr | Ag | 93 |
| 94 | .0001 | | | .0x | .x | x. | | .0x | | .0x | | .0x | | | Al, Fe, Ca | Ti, Mg | Ba | Ag | | 94 |
| 95 | .0007 | .0032 | .2 | .00x | .x | x. | .00x | x. | .x | .00x | 0.00x | .x | | Fe | Ca | Al, Mg, Na | Ti, Ba, Sn | Sr, Zr | | 95 |
| 96 | .0033 | .0018 | .6 | .00x | .0x | x. | .00x | .0x | .x | .0x | .00x | .x | | Fe | | Al, Ca, Na | Mg, Ba | Sn, Sr, Zr | Ag, Ga, Y | 96 |
| | **Oklahoma** | | | | | | | | | | | | | | | | | | | |
| 97 | 0.0005 | 0.002 | 0.1 | x. | x. | 0.0x | 0.0x | 0.0x | 0.x | 0.0x | 0.00x | 0.0x | 0.0x | | Si, Fe, P, Mg, Na | Al, Ti, Ca, K, Ce, Nd, Sm, Zr. | B, Ba | Y | Ag, Ga | 97 |
| 98 | .03 | .001 | 3.0 | x. | x. | .0x | .x | .x | .x | .0x | .x | .0x | | | Si, Al, Fe, Ca, Mg, Na | Ti, K, Zr | B, Ba, Sr | Ga, Y | Be | 98 |
| 99 | .064 | .0006 | 3.8 | xx. | x. | .0x | .0x | .0x | | .00x | .00x | .0x | .00x | | Si, Na | Al, Fe, Ca, Mg, Zr | Ti, Ba, Sr | B | Ga | 99 |
| 100 | .087 | .0005 | 4.4 | xx. | xx. | .00x | .0x | .x | .0x | .00x | | .0x | | | Al, Na | Si, Fe, Ca, Mg | Ti, Ba, Sn, Sr, Zr | Ga | | 100 |
| 101 | 2.76 | .0009 | 248.4 | .x | .0x | .000x | .000x | .00x | .00x | .000x | .000x | .00x | | | | Na | Ca | Si, Al, Fe, Mg, Sn | Ba, Sr | 101 |
| 102 | .032 | .0006 | 1.9 | xx. | xx. | .0x | .0x | .x | .x | .x | .000x | .0x | | | Si | Al, Fe, Ca, Mg, Na, Sn | Ti, Zr | B, Ba, Sr | Ga | 102 |
| 103 | .09 | .0006 | 5.4 | xx. | xx. | .x | .0x | .0x | | .0x | .0x | .0x | | | Na | Si, Al, Fe, Ca | Mg, Ti | Ba, Sr | Ag | 103 |
| 104 | .07 | .0004 | 2.8 | x. | .x | .0x | .0x | .00x | | .00x | .00x | .00x | | Na | Ca | Si, Al, Mg, Ba, Sr | Fe, Ti | | | 104 |
| 105 | .005 | .004 | 2.0 | xx. | x. | .0x | .x | .0x | | .0x | .0x | .0x | | Na | Fe, Ca | Al, Mg, As | Ti, Ba, Sr | Be | Ag | 105 |
| 106 | .01 | .0004 | .4 | x. | x. | .x | .x | .0x | .x | .00x | .0x | .0x | | Ca, Na | Fe, Mg | Si, Al, Ba, Sr | Ti | | | 106 |
| 107 | .11 | .0005 | 5.5 | .x | .x | x. | .0x | | | .00x | .00x | .00x | | Na | Mg, Ca | Si, Al, Sr | Fe, Ti | Ba | | 107 |
| 108 | .01 | .0004 | .4 | x. | x. | .0x | .x | .00x | | .00x | .0x | .0x | | Na | Ca | Si, Al, Fe, Mg | Ti, Ba, Sr | | | 108 |
| 109 | .003 | .004 | 1.2 | xx. | xx. | .0x | .x | .0x | .x | .0x | .0x | .0x | | | Na, As | Al, Fe, Mg, Ca | Ti, Zr | Ag, Ba, Be, Sr | | 109 |
| 110 | .001 | .51 | 51.0 | xx. | xx. | .x | .x | .0x | .x | .0x | .0x | .0x | | | Al, Fe, Ca | Mg, Na, U | Ti, B, Ba, Zr | Ag, Sr | | 110 |
| 111 | 1.09 | .0003 | 32.7 | .x | .0x | .00x | | | | | | .00x | | Na | Mg, Ca | Sr | Si, Al, Fe | Ba | | 111 |
| 112 | .001 | .0032 | .3 | x. | x. | xx. | .00x | .x | x. | .0x | .00x | .0x | .0x | | Fe, Ca, Na | Al, Mg, As, Ce | Ti, Ba, Sr, Zr | | Ag | 112 |
| 113 | .018 | .0002 | .4 | | | | | | | | | | | | | | | | | 113 |
| 114 | .022 | .0009 | 2.0 | xx. | xx. | .0x | .0x | .0x | .x | .00x | .00x | .0x | | | Ca, Na | Al, Fe, Ti, Mg, Ce, Zr | Ba, Sr | | | 114 |
| 115 | .005 | .0017 | .8 | .x | .x | .x | .00x | .00x | | .00x | | .00x | | Na | Ca | Al, Mg, Sr | Fe, Ba | B | Ti | 115 |
| 116 | .0203 | .0004 | .8 | .x | .0x | .x | | .0x | | .000x | | .00x | | | Ca, Mg, Na | Al, Fe, Sr | Ba, Sn | Ti | | 116 |
| 117 | .0044 | .0001 | .1 | | | | | | | | | | | | | | | | | 117 |
| 118 | .0074 | .001 | .7 | .x | .0x | .x | .000x | .00x | | .00x | | .00x | | Na | Ca, Mg | Al, Sr | Fe, B, Ba | Ti | | 118 |
| 119 | .002 | .045 | 9.0 | x. | x. | .0x | .0x | .0x | .0x | .0x | .00x | .0x | .0x | Ba | Fe, Ca, Na | Al, Ti, Mg, As, Sr | Ce, Er, Sc, Zr, Y | Ag, Be, Sn | Ga | 119 |
| 120 | .017 | .0168 | 28.6 | .x | .x | .x | .0x | .x | .x | .0x | | .x | | Fe, Ca | Na, Ba, Sr | Al, Mg, Zr | Ti, Sc, Sn, Y | Be | | 120 |
| 121 | .002 | .0178 | 2.6 | x. | xx. | .x | .0x | .0x | .x | .0x | .00x | .x | | Ca, Ba | Al, Fe, Na | Ti, Mg, As, Sr, Zr | Sc, Sn, Y | Be, Ge | Ag | 121 |
| 122 | .001 | .040 | 4.0 | x. | x. | .0x | .0x | .0x | .0x | .0x | .00x | .0x | .00x | Ba | Fe, Ca, Na | Al, Ti, Mg, As, Sr | Ce, Er, Sc, Zr, Y | Ag, Be, Ge, Sn | Ga | 122 |
| 123 | .009 | .0268 | 24.1 | x. | x. | .x | .0x | .x | .x | .0x | | .x | | Fe, Ca | Al, Mg, Na, Ba, Sr | Zr | Ti, Sc, Y | Ag, Be, Nb | | 123 |
| 124 | .002 | .0131 | 2.6 | x. | x. | x. | .0x | .x | x. | .0x | .00x | .x | | Fe | Al, Ca, Mg, Na | Ti, Sn, Sr | B, Ba, Zr | Ag, Ge, Nb, Sc | | 124 |
| 125 | .0023 | .0017 | .4 | x. | x. | .x | .0x | .x | .x | .0x | | .0x | | Fe | Ca, Mg, Na | Al | Ti, Ba, Sr | | | 125 |
| 126 | .0006 | | | x. | x. | x. | .0x | xx. | .x | .0x | | .x | .0x | Fe, Ca | Al, Na | Mg, Ce, Sn, Sr | Ti, B, Ba, Ge, Y, Zr | Be, Sc | | 126 |
| 127 | .0007 | .005 | .3 | x. | x. | xx. | .00x | .x | .x | .00x | | .0x | .0x | | Al, Fe, Ca, Mg | Na, Sr | B, Ba, Sn | Ti, Ag | | 127 |
| 128 | .0014 | .0004 | .1 | | | | | | | | | | | | | | | | | 128 |
| 129 | .0038 | .0006 | .3 | | | | | | | | | | | | | | | | | 129 |
| 130 | .0151 | .0004 | .6 | | | | | | | | | | | | | | | | | 130 |
| 131 | .0035 | .0011 | .4 | x. | x. | .x | .0x | .0x | | .0x | | .00x | .0x | | Na | Si, Al, Ca, Mg, Sr | Fe, Ba, Zr | Ti, Bi, Sn | | 131 |
| 132 | .0013 | .0045 | .6 | xx. | xx. | x. | .0x | .x | .x | .00x | | .0x | | | Al, Fe, Ca, Na | Mg | Ti, Ba, Sr | | | 132 |
| 133 | .021 | .0016 | 3.4 | x. | x. | x. | .0x | x. | .x | .0x | 0.0x | .0x | .00x | | Si, Al, Fe | Ti, Ca, Mg, Na, K, Zr | B, Ba, Sn, Sr, Y | Be | Ag, Ga | 133 |
| | **South Dakota** | | | | | | | | | | | | | | | | | | | |