POTASH CO. OF AMERICA #4 PIPKIN

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80% fine to coarse angular quartz sand, 20% gray shale.
90% fine to coarse angular quartz sand, 10% light gray shale.
50% fine to coarse angular quartz sand, 50% light gray shale.
200-10
210-20
220-30
230-40
                                                               80%
             20%
                                                               80% ditto
240-50
             20% ditto
             50% ditto
50% ditto
250-60
                                                               50% ditto
                                                               50% ditto
260-70
270-80
             50% ditto
                                                               50% ditto
             5%
                                                               95% ditto
280-90
                   ditto
290-300
             20%
                   ditto
                                                               80% ditto
                                                               90% ditto
300-10
             10% ditto
                                                               50% ditto
310-20
             50% ditto
320-30
             40% coarse angular white quartz sand, 30% fine sand, 30% gray shale.
330-40
             Ditto, traces pyrite, chert.
340-50
             Ditto
             90% Med. to coarse, angular to rounded quartz sand, 10% gray shale. Ditto, Red and pink chert, and flint fragments, frosted quartz grains.
350-60
360-70
370-80
             Ditto
380-90
             Ditto
390-1100
             Ditto
400-10
             95% fine to coarse, angular to rounded white quartz sand, 5% gray shale.
410-20
             Ditto
420-30
             Ditto
             90% sand as above, 10% gray shale.
1110-50
             Ditto
450-60
             95% very fine to coarse angular white quartz sand, 5% gray shale.
                                                                           10% ditto
             90% ditto
460-70
470-80
             90% ditto, (flint, chert, pink and red fragments) 10% ditto
480-90
             Ditto
490-500
             Ditto
510-20
             Ditto
520-30
             90% Med. to coarse quartz sand, chert and flint fragments, 10% gray shale.
530-40
             95% Ditto
                                                                                      5% ditto.
                                                                                      5% ditto
540-50
             95% Ditto
             80% Med. to coarse quartz sand, 10% white clay, 10% gray shale.
550-60
560-70
             95% Ditto
                                                                          5% gray shale, chert fragments.
570-80
                                                                          5% Ditto
             90% Ditto
             80% fine to Med. white quartz sand, 10% coarse sand, 10% gray shale.
580<del>-9</del>0
590-600
             50% fine to Med. quartz sand, 30% gray shale, 20% white shale.
600-10
610-20
620-30
630-40
640-50
650-60
660-70
670-80
680-90
690-700
700-10
             90% fine to coarse white and pink quartz sand, 10% gray shale.
710-20
                                                                       20% Ditto
             80% Ditto
             90% Ditto
70% Ditto
720-30
730-40
                                                                       10% Ditto
                                                                       30% Ditto
             40% light greenish gray shale, 40% dark gray shale, 20% sand.
740-50
750-60
                                                    30% ditto
             40% ditto
                                                                             30% ditto.
760–70
770–80
             90% ditto
                                                     5% ditto
                                                                               5% ditto.
                                                    10% dark gray shale, 10% sand.
             80% ditto
780<del>-9</del>0
             95% light greenish gray shale, 5% sand.
790–800
800–10
             50% ditto
                                                    50% dark gray shale, trace sand.
             50% light gray shale, 50% dark gray shale, trace sand.
             Ditto
810-20
820-30
830-40
             Ditto
             50% light and dark gray shale, 50% fine to coarse sand.
840-50
             Ditto
             Ditto
850-60
             70% fine to coarse angular quartz sand, 30% light gray shale. 50% fine to coarse angular quartz sand, 50% light gray shale.
860-70
870-80
880-90
             80% ditto
                                                               20% ditto.
                                                               80% light and dark gray shale.
890-900
             20% ditto
             50% greenish gray shale, 50% fine to coarse quartz sand. 40% greenish gray shale, 40% dark gray shale, 20% quartz sand. 40% greenish gray shale, 40% dark gray shale, 20% "
900-10
910-20
920-30
930-40
             70% light green gray shale, 30% fine to coarse quartz sand.
940-50
             Ditto, trace gypson.
950-60
             80% light gray green shale, 20% fine to coarse angular quartz sand.
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#4 Pipkin - Contd.

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70% light green gray shale, 10% dark gray shale, 10% fine to coarse sand,
960-70
              trace purple shale, gyp.
970-80
              70% dark gray shale, 20% fine to coarse quartz sand, 10% light gray siltstone.
980-90
990-1000
              70% dark gray shale, 20% fine to coarse sand, 10% light gray siltstone, chert.
              fragments (cavings).
1000-10
              70% dark gray shale, 10% light gray siltstone, 20% sand, trace pyrite.
             80% dark gray shale, 20% fine to coarse quartz sand.
60% dark gray shale, 40% fine to coarse quartz sand, chert frags.
1010-20
1020-30
1030-40
              Ditto
10lio-50
              90% light gray shale, 10% sand.
1050-60
              Ditto
1060-70
             Ditto
1070-80
              50% light gray shale, 50% fine to coarse quartz sand.
              80% fine to very coarse white to brown angular quartz sand; 20% light gray shale.
1080-90
1090-1100
             70% sand as above; 30% shale as above.
1100-10
1110-20
              90% light gray shale, 10% sand.
             Ditto
1120-30
              70% light gray shale, 30% fine to coarse sand.
1130-40
                                        10% ditto
             90% ditto
1140-50
             90% ditto
                                        10% ditto
1150-60
             70% ditto
                                        30% ditto
1160-70
             90% ditto
                                        10% ditto
1170-80
             70% ditto
                                        30% ditto
             80% ditto
1140-90
                                        20% ditto
             90% ditto
1190-1200
                                        10% ditto
1200-10
             90% ditto
                                        10% ditto
             95% dark gray shale, 5% sand
1210-20
1220-30
             Ditto
1230-40
             Ditto
1240-50
             Ditto
1250-60
             Ditto
1260-70
             100% light gray shale, trace sand
1270-80
             Ditto
1280-90
             Ditto
1290-1300
             Ditto - Trace white clay
1300-10
             95% light gray shale, 5% sand
1310-20
             100% light to dark gray shale, trace sand.
1.320-30
             Ditto
1330-40
             Ditto
1340-50
             Ditto
1350-60
             95% dark gray shale, 5% sand.
 1360-70
             Ditto
1370-80
              50% light gray shale, 50% dark gray to black shale, trace coal and sand.
              (Top Fruitland)
1380-90
1390-1400
             Ditto - More coal.
             60% light gray shale, 40% dark gray to black shale, trace sand, coal.
             40% coal, 30% black shale, 30% light gray shale, trace sand.
1/100-10
             10% coal, 60% black shale, 25% light gray shale, 5% sand.
14:10-20
              50% dark gray to black shale, 50% light gray shale, trace coal, sand.
1420-30
1430-40
             Ditto
             80% light gray shale, 20% dark gray shale, trace sand, coal. 40% light gray shale, 40% dark gray shale, 20% light gray siltstone, trace coal
1440-50
1450-60
              and sand.
             70% coal, 20% light gray shale, 10% sand.
50% coal, 40% gray shale, 10% sand.
40% coal, 40% gray shale, 10% white siltstone, 10% sand.
30% coal, 50% gray shale, 10% sand.
40% light gray shale, 40% dark gray shale, 10% coal, 10% sand.
1460-70
1470-80
1480-90
1490-1500
1500-10
1510-20
             40% black shale, 40% gray shale, 10% coal, 10% sand
             30% black shale, 40% gray shale, 30% sand, trace coal.
80% light gray shale, 20% black shale, 10% sand.
30% gray to black shale, 40% fine grained sand, 20% coal.
70% gray to black shale, 20% sand, 10% coal.
90% gray to black shale, 10% sand.
1520-30
1530-40
1540-50
1550-60
1560-70
1570-80
              80%black Carb. shale, 10% gray shale, 10% coal, trace sand.
              70% black Carb. shale, 30% gray shale, trace coal, sand.
1580-90
             50% fine to coarse angular quartz sand, 50% gray shale.
1590-1600
1600-10
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