

## TABULAR DATA

### Data for Conventional Plays

These files contain the data for the conventional plays from the 1995 National Assessment. Only accumulations greater than or equal to 1 million barrels of oil or 6 billion cubic feet of gas are included in this part of the assessment. The data for smaller accumulations are included in the directory "aggregat" in files smfld.tab or smfld.ffa. Two versions of each file are given: tab-delimited ASCII (having a .tab extension) and fixed-format ASCII (having an .ffa extension). In the generic file names given in this readme file, "#" stands for a number -- either region, province, or play -- as appropriate for each type of file. For the fixed-format ASCII files (.ffa extension), the positions within the character string for each variable is given, for example "(characters 1-6)." See the chapter by Gautier and Dolton (method.ans or method.rtf) for further discussion of the data in these files.

**conv#in.tab** (tab-delimited ASCII) or **conv#in.ffa** (fixed-format ASCII):  
Input data for assessment of conventional undiscovered accumulations

These eight files, one for each region, contain the input for the assessment of conventional plays. Only accumulations greater than or equal to 1 million barrels of oil or 6 billion cubic feet of gas are included in this part of the assessment. Following 2 lines of header information, the data are presented in 58 columns:

- (1) region -- (characters 1-6) the region number
- (2) province\_num -- (characters 8-19) the province number
- (3) province\_name -- (characters 21-62) the province name
- (4) play\_num -- (characters 64-71) the play number
- (5) play\_name -- (characters 73-199) the play name
- (6) geologists -- (characters 201-231) the geologist(s) responsible for this play
- (7) hypo\_or\_conf -- (characters 233-244) whether the play is hypothetical or confirmed
- (8) charge -- (characters 246-251) the probability of adequate hydrocarbon charge
- (9) reservoir -- (characters 253-261) the probability of adequate hydrocarbon reservoirs
- (10) trap -- (characters 263-266) the probability of adequate hydrocarbon traps
- (11) play\_prob -- (characters 268-276) the play probability (product of charge, reservoir, and trap)
- (12) num\_oil\_disc -- (characters 278-289) the number of discovered oil accumulations in the play greater than or equal to one million barrels in size
- (13) num\_gas\_disc -- (characters 291-302) the number of discovered non-associated gas accumulations in the play greater than or equal to six billion cubic feet in size
- (14) oil\_depth\_min -- (characters 304-316) the minimum expected depth of undiscovered oil accumulations (in feet)
- (15) oil\_depth\_max -- (characters 318-330) the maximum expected depth of undiscovered oil accumulations (in feet)

- (16) oil\_depth\_med -- (characters 332-344) the median expected depth of undiscovered oil accumulations (in feet)
- (17) gas\_depth\_min -- (characters 346-358) the minimum expected depth of undiscovered gas accumulations (in feet)
- (18) gas\_depth\_max -- (characters 360-372) the maximum expected depth of undiscovered gas accumulations (in feet)
- (19) gas\_depth\_med -- (characters 374-386) the median expected depth of undiscovered gas accumulations (in feet)
- (20) oil\_fraction -- (characters 388-399) the fraction of undiscovered accumulations expected to be oil accumulations
- (21) gas\_fraction -- (characters 401-412) the fraction of undiscovered accumulations expected to be gas accumulations
- (22) biogenic\_gas? -- (characters 414-426) whether any biogenic gas is expected (yes or no)
- (23) H2S? -- (characters 428-431) whether any hydrogen sulfide is expected (yes or no)
- (24) H2S\_% -- (characters 433-438) the expected percent of hydrogen sulfide in the gas
- (25) GOR -- (characters 440-444) the expected ratio of associated-dissolved gas to oil (in cubic feet of gas per barrel of oil)
- (26) NGL/na\_gas -- (characters 446-455) the expected ratio of natural gas liquids to non-associated gas (in barrels of liquid per million cubic feet of gas)
- (27) NGL/ad\_gas -- (characters 457-466) the expected ratio of natural gas liquids to associated-dissolved gas (in barrels of liquid per million cubic feet of gas)
- (28) API\_min -- (characters 468-474) the minimum expected API gravity of the oil (in degrees)
- (29) API\_max -- (characters 476-482) the maximum expected API gravity of the oil (in degrees)
- (30) API\_mea -- (characters 484-490) the mean expected API gravity of the oil (in degrees)
- (31) sulfur\_in\_oil -- (characters 492-504) the expected percent sulfur in the oil
- (32) H2S\_in\_gas -- (characters 506-515) the expected amount of hydrogen sulfide in the gas
- (33) H2S\_units -- (characters 517-525) the units for H2S\_in\_gas (percent or ppm)
- (34) type\_I\_org -- (characters 527-536) whether the source rock is expected to contain type I organic matter (yes or no)
- (35) type\_II\_org -- (characters 538-548) whether the source rock is expected to contain type II organic matter (yes or no)
- (36) type\_III\_org -- (characters 550-561) whether the source rock is expected to contain type III organic matter (yes or no)
- (37) TOC -- (characters 563-567) the expected total organic carbon (in percent)
- (38) Ro\_min -- (characters 569-574) the minimum expected thermal maturity of the source rock
- (39) Ro\_max -- (characters 576-581) the maximum expected thermal maturity of the source rock

- (40) Ro\_mean -- (characters 583-589) the mean expected thermal maturity of the source rock
- (41) T\_max -- (characters 591-596) the maximum expected burial temperature (in degrees Celsius)
- (42) in\_oil\_window -- (characters 598-610) the expected percent of source rock in the maturity range of 0.6-1.2
- (43) in\_gas\_window -- (characters 612-624) the expected percent of source rock in the maturity range of 1.2-2.0
- (44) overcooked -- (characters 626-635) the expected percent of source rock in the maturity range of greater than 2.0
- (45) max\_burial\_depth -- (characters 637-652) the maximum expected burial depth of the source rock (in feet)
- (46) paleo\_grad -- (characters 654-663) the inferred paleotemperature gradient (in degrees Fahrenheit per hundred feet)
- (47) oil\_median\_size -- (characters 665-679) the expected median size of the undiscovered oil accumulations (in millions of barrels)
- (48) gas\_median\_size -- (characters 681-695) the expected median size of the undiscovered non-associated gas accumulations (in billions of cubic feet)
- (49) oil\_largest\_at\_5% -- (characters 697-713) the estimate such that there is a five percent chance that the largest oil accumulation is greater than this value (in millions of barrels)
- (50) gas\_largest\_at\_5% -- (characters 715-731) the estimate such that there is a five percent chance that the largest gas accumulation is greater than this value (in billions of cubic feet)
- (51) oil\_shape\_factor -- (characters 733-748) the shape factor (1 to 7) for the truncated shifted Pareto distribution of undiscovered oil accumulations (See Houghton and others, 1993.)
- (52) gas\_shape\_factor -- (characters 750-765) the shape factor (1 to 7) for the truncated shifted Pareto distribution of undiscovered non-associated gas accumulations (See Houghton and others, 1993.)
- (53) oil\_min\_num -- (characters 767-777) the minimum expected number of undiscovered oil accumulations
- (54) gas\_min\_num -- (characters 779-789) the minimum expected number of undiscovered gas accumulations
- (55) oil\_med\_num -- (characters 791-801) the median expected number of undiscovered oil accumulations
- (56) gas\_med\_num -- (characters 803-813) the median expected number of undiscovered gas accumulations
- (57) oil\_max\_num -- (characters 815-825) the maximum expected number of undiscovered oil accumulations
- (58) gas\_max\_num -- (characters 827-837) the maximum expected number of undiscovered gas accumulations

**conv#out.tab** (tab-delimited ASCII) or **conv#out.ffa** (fixed-format ASCII):

Mean estimates from assessment of conventional undiscovered accumulations

These eight files, one for each region, contain the mean resource estimates for the conventional plays. Only accumulations greater than or equal to 1 million barrels of oil or 6 billion cubic feet of gas are included in this part of the assessment. Following two lines of header information, the data are presented in ten columns:

- (1) play -- (characters 1-4) the play number
- (2) num\_oil\_accums -- (characters 6-19) the mean number of undiscovered oil accumulations
- (3) oil\_mean\_size -- (characters 21-33) the mean size (in millions of barrels) of the undiscovered oil accumulations
- (4) oil -- (characters 35-44) the mean estimate (in millions of barrels) of volume of undiscovered oil
- (5) assoc\_gas -- (characters 46-55) the mean estimate (in billions of cubic feet) of volume of undiscovered associated gas
- (6) assoc\_gas\_liquids -- (characters 57-73) the mean estimate (in millions of barrels) of volume of undiscovered associated gas liquids
- (7) num\_gas\_accums -- (characters 75-88) the mean number of undiscovered non-associated gas accumulations
- (8) gas\_mean\_size -- (characters 90-102) the mean size (in billions of cubic feet) of the undiscovered non-associated gas accumulations
- (9) non-assoc\_gas -- (characters 104-116) the mean estimate (in billions of cubic feet) of volume of undiscovered non-associated gas
- (10) non-assoc\_gas\_liquids -- (characters 118-138) the mean estimate (in millions of barrels) of volume of undiscovered non-associated gas liquids

**correl\_#.tab** (tab-delimited ASCII) or **correl\_#.ffa** (fixed-format ASCII):

Calculated correlations between conventional, assessed plays

These eight files, one for each region, include the output values showing the calculated correlation between conventional, assessed plays. Following two lines of header information, the data are presented in nine columns:

- (1) province -- (characters 1-6) the province number
- (2) first\_play -- (characters 8-17) the number of the first play
- (3) second\_play -- (characters 19-30) the number of the second play
- (4) corr\_row\_num -- (characters 32-43) the row number of the province correlation matrix
- (5) corr\_col\_num -- (characters 45-57) the column number of the province correlation matrix
- (6) adjusted\_corr -- (characters 59-74) the adjusted correlation value

- (7) `original_corr` -- (characters 76-89) the original correlation value (average of the original three correlation values in `depend#.tab` or `depend#.ffa`)
- (8) `residual` -- (characters 91-102) the value of the residual (`adjusted_corr` minus `original_corr`)
- (9) `bias_factor` -- (characters 104-114) the bias factor: Note, if the bias factor is positive, no adjustment is made to the correlation matrix. If the bias factor is negative, a bias factor equal to the absolute value of this quantity plus 0.001 is applied to the matrix of correlations to make it a correlation matrix. The more negative the factor, the more bias needs to be applied.

**depend#.tab** (tab-delimited ASCII) or **depend#.ffa** (fixed-format ASCII):  
Input for calculation of correlations between conventional, assessed plays

These eight files, one for each region, include the input values for determining the correlation between conventional, assessed plays. The first three columns include values of 0.1, 0.5, or 0.9, signifying (respectively) low, moderate, or high correlation on that factor for the pair of plays. Following two lines of header information, the data are presented in seven columns:

- (1) `charge` -- (characters 1-6) value for correlation with respect to charge for the two plays
- (2) `reservoir` -- (characters 8-16) value for correlation with respect to reservoir for the two plays
- (3) `trap` -- (characters 18-21) value for correlation with respect to trap for the two plays
- (4) `first_play` -- (characters 23-29) the number of the first play
- (5) `first_play_name` -- (characters 34-160) the name of the first play
- (6) `second_play` -- (characters 162-168) the number of the second play
- (7) `second_play_name` -- (characters 174-300) the name of the second play

**exp#.tab** (tab-delimited ASCII) or **exp#.ffa** (fixed-format ASCII):  
History of exploration effort by play

These files contain the number of exploratory wells (initial well classification of 4 or 5) from the Well History Control System file (Petroleum Information Corp., 1993 and 1994) associated with a particular play. As such, they give a crude measure of exploration effort in the play by year. The files exist only for selected plays. Unlike much of the other tabular data, these data could not be conveniently grouped into region-level files, so there is one file per play. Following one line of header information, the data are presented in three columns:

- (1) `year` -- (characters 1-4) year of reported number of exploratory wells
- (2) `num_exp_wells` -- (characters 6-14) number of exploratory wells drilled for the given year

(3) cum\_exp\_wells -- (characters 16-28) cumulative number of exploratory wells

**frac#.tab** (tab-delimited ASCII) or **frac#.ffa** (fixed-format ASCII):

Fractile estimates from assessment of conventional undiscovered accumulations

These eight files, one for each region, contain the output fractiles for the conventional plays. Only accumulations greater than or equal to 1 million barrels of oil or 6 billion cubic feet of gas are included in this part of the assessment. Following 2 lines of header information, the data are presented in 13 columns:

(1) play -- (characters 1-5) the play number

(2) commodity -- (characters 7-15) either oil or non-associated gas

(3) to (11) -- F99 (characters 17-26), F95 (characters 28-37), F90 (characters 39-48), F75 (characters 50-59), F50 (characters 61-70), F25 (characters 72-81), F10 (characters 83-92), F5 (characters 94-103), and F1 (characters 105-114), fractiles for the distribution of volume of undiscovered resource; F5 means, for example, that there is a 5 percent chance of greater than the listed amount of resource (in millions of barrels of oil or billions of cubic feet of non-associated gas)

(12) mean -- (characters 116-125) the mean estimate (in millions of barrels of oil or billions of cubic feet of non-associated gas) of volume of undiscovered oil or non-associated gas

(13) standard\_deviation -- (characters 127-144) the standard deviation of the distribution of volume of undiscovered oil or non-associated gas (in millions of barrels of oil or billions of cubic feet of non-associated gas)

**hist#.tab** (tab-delimited ASCII) or **hist#.ffa** (fixed-format ASCII):

Size distribution of discovered accumulations

These eight files, one for each region, present the size distribution of the discovered accumulations equal to or larger than 1 million barrels of oil or 6 billion cubic feet of non-associated gas in size. Inferred reserves are not included in the estimation of size, but rather only cumulative production plus proved reserves. Following 1 line of header information, the data are presented in 18 columns:

(1) play -- (characters 1-4) the play number

(2) commodity -- (characters 11-19) oil or gas resource

(3) disc\_seq -- (characters 21-34) the portion of the discovery sequence (for example, the first third or the second half, as calculated by number of accumulations) or the total for that commodity

(4) to (18) bins -- number of accumulations having a known volume of commodity in either million barrels of oil (MMBO) or billion cubic feet of gas (BCFG) within the given interval. Accumulations of sizes that correspond to interval boundaries are put in the

higher numbered bin (for example, a 2-MMBO accumulation is counted in bin\_2). The intervals are:

bin\_1 -- (characters 36-44) 1-2 MMBO or 6-12 BCFG  
bin\_2 -- (characters 46-54) 2-4 MMBO or 12-24 BCFG  
bin\_3 -- (characters 56-64) 4-8 MMBO or 24-48 BCFG  
bin\_4 -- (characters 66-74) 8-16 MMBO or 48-96 BCFG  
bin\_5 -- (characters 76-84) 16-32 MMBO or 96-192 BCFG  
bin\_6 -- (characters 86-94) 32-64 MMBO or 192-384 BCFG  
bin\_7 -- (characters 96-104) 64-128 MMBO or 384-768 BCFG  
bin\_8 -- (characters 106-114) 128-256 MMBO or 768-1536 BCFG  
bin\_9 -- (characters 116-124) 256-512 MMBO or 1536-3072 BCFG  
bin\_10 -- (characters 126-134) 512-1024 MMBO or 3072-6144 BCFG  
bin\_11 -- (characters 136-144) 1024-2048 MMBO or 6144-12288 BCFG  
bin\_12 -- (characters 146-154) 2048-4096 MMBO or 12288-24576 BCFG  
bin\_13 -- (characters 156-164) 4096-8192 MMBO or 24576-49152 BCFG  
bin\_14 -- (characters 166-174) 8192-16384 MMBO or 49152-98304 BCFG  
bin\_15 -- (characters 176-184) at least 16384 MMBO or at least 98304 BCFG

**sizes#.tab** (tab-delimited ASCII) or **sizes#.ffa** (fixed-format ASCII):

Size distribution of undiscovered accumulations

These eight files, one for each region, present the estimates of the size distribution of the undiscovered accumulations equal to or larger than 1 million barrels of oil or 6 billion cubic feet of non-associated gas in size. Following 2 lines of header information, the data are presented in 18 columns:

- (1) play -- (characters 1-4) the play number
- (2) commodity -- (characters 7-15) either oil or non-associated gas
- (3) median\_size -- (characters 18-28) the median size of the undiscovered accumulations (in millions of barrels of oil or billions of cubic feet of non-associated gas), from the assessment input
- (4) shape\_factor -- (characters 31-37) the shape factor for the sizes of undiscovered accumulations, from the assessment input (See Houghton and others, 1993.)
- (5) to (7) -- parameters a (characters 40-50), b (characters 52-55), and Tu (characters 57-61) of the truncated shifted Pareto (TSP) distribution fit to the median\_size and shape\_factor (See Houghton and others, 1993.)
- (8) to (16) -- F99 (characters 63-70), F95 (characters 72-79), F90 (characters 81-88), F75 (characters 90-97), F50 (characters 99-106), F25 (characters 108-115), F10 (characters 117-124), F5 (characters 126-133), and F1 (characters 135-142), fractiles for the size distribution of undiscovered accumulations equal to or larger than 1 million barrels or 6 billion cubic feet in size; F5 means, for example, that there is a 5 percent chance of

greater than the listed amount of resource (in millions of barrels of oil or billions of cubic feet of non-associated gas)

(17) `max_accum_size` -- (characters 145-158) the maximum size of the undiscovered accumulations (in millions of barrels of oil or billions of cubic feet of non-associated gas), from the TSP fit

(18) `mean_size` -- (characters 161-169) the mean size of the undiscovered accumulations (in millions of barrels of oil or billions of cubic feet of non-associated gas), from the TSP fit

**tsp#.tab** (tab-delimited ASCII) or **tsp#.ffa** (fixed-format ASCII):

Truncated shifted Pareto distributions of discovered accumulations

These eight files, one for each region, contain the size data for discovered accumulations and the truncated shifted Pareto (TSP) distributions fit to them. Only accumulations greater than or equal to 1 million barrels of oil or 6 billion cubic feet of gas are included in this part of the assessment. Because the raw data came from proprietary data files (especially from the NRG Associates Significant Oil and Gas Fields of the United States Data Base), only summary information on the distributions can be released. Following 2 lines of header information, the data are presented in 18 columns:

(1) `play_num` -- (characters 1-8) the play number

(2) `commodity` -- (characters 10-18) oil or non-associated gas

(3) `disc_seq` -- (characters 20-40) the portion of the discovery sequence (for example, the first third or the second half, as calculated by number of accumulations) or the total for that commodity

(4) `date` -- (characters 42-51) the date of the end of that portion of the discovery sequence

(5) `total_vol` -- (characters 53-61) the total volume of resource of the commodity discovered during that portion of the discovery sequence (in thousands of barrels of oil or millions of cubic feet of non-associated gas)

(6) `size_mean` -- (characters 63-71) the mean size of accumulations discovered during that portion of the discovery sequence (in thousands of barrels of oil or millions of cubic feet of non-associated gas)

(7) `size_median` -- (characters 73-83) the median size of accumulations discovered during that portion of the discovery sequence (in thousands of barrels of oil or millions of cubic feet of non-associated gas)

(8) `size_max` -- (characters 85-93) the maximum size of accumulations discovered during that portion of the discovery sequence (in thousands of barrels of oil or millions of cubic feet of non-associated gas)

(9) `num_accums` -- (characters 95-104) the number of accumulations discovered during that portion of the discovery sequence

(10) `shape_factor` -- (characters 106-117) the shape factor for the truncated shifted Pareto (TSP) distribution fit to the size data for accumulations discovered during that portion of the discovery sequence (See Houghton and others, 1993)

(11) to (13) -- F95 (characters 119-126), F50 (characters 128-136), and F5 (characters 138-146), fractiles for the TSP distribution of accumulations discovered during that portion of the discovery sequence; F5 means, for example, that 5 percent of the accumulations are larger than the listed amount of resource (in thousands of barrels of oil or millions of cubic feet of non-associated gas)

(14) to (18) are summary data for play totals and are on only the lines for totals of each commodity

(14) `total_oil` -- (characters 148-156) the total volume of oil from accumulations of the listed commodity discovered in this play (in thousands of barrels)

(15) `total_gas` -- (characters 158-166) the total volume of gas from accumulations of the listed commodity discovered in this play (in millions of cubic feet)

(16) `total_NGL` -- (characters 168-176) the total volume of natural gas liquids from accumulations of the listed commodity discovered in this play (in thousands of barrels)

(17) `GOR` -- (characters 178-186) the gas/oil ratio for oil accumulations discovered in this play (in cubic feet per barrel); no equivalent for non-associated gas accumulations

(18) `LGR` -- (characters 188-196) the NGL to gas ratio for accumulations of the listed commodity discovered in this play (in barrels per million cubic feet)

### Data for Unconventional Plays

These files in directory "unconven" contain the data for the unconventional plays from the 1995 National Assessment. Two versions are given: tab-delimited ASCII (having a .tab extension) and fixed-format ASCII (having an .ffa extension) . Because of the limited number of plays, these files are not separated by region.

**coalbed.tab** (tab-delimited ASCII) or **coalbed.ffa** (fixed-format ASCII):

Input and results of coalbed gas assessment

These files contain both the input and the output from the assessment of coalbed gas plays. Following 2 lines of header information, the data are presented in 58 columns:

- (1) `geologists` -- (characters 1-35) the geologist(s) responsible for this play
- (2) `region` -- (characters 37-42) the region number
- (3) `province_name` -- (characters 44-77) the province name
- (4) `province_num` -- (characters 79-90) the province number
- (5) `date` -- (characters 92-98) the date of the assessment
- (6) `play_name` -- (characters 100-146) the play name
- (7) `play_num` -- (characters 148-155) the play number
- (8) `hypo_or_conf` -- (characters 157-168) whether the play is hypothetical or confirmed
- (9) `play_prob` -- (characters 170-178) the play probability

- (10) cell\_size\_acres -- (characters 180-194) the cell size in acres
- (11) cell\_size\_sqmi -- (characters 196-209) the cell size in square miles
- (12) area\_of\_play -- (characters 211-222) the area of the play in square miles
- (13) num\_cells -- (characters 224-232) the total number of cells in the play
- (14) num\_prod\_cells -- (characters 234-247) the number of producing cells in the play
- (15) num\_nonprod\_cells -- (characters 249-265) the number of nonproducing (but tested) cells in the play
- (16) cells\_med -- (characters 267-275) the median number of untested cells in the play
- (17) cells\_min -- (characters 277-285) the minimum number of untested cells in the play
- (18) cells\_max -- (characters 287-295) the maximum number of untested cells in the play
- (19) success\_ratio -- (characters 297-309) the success ratio
- (20) to (26) -- EUR\_F100 (characters 311-318), EUR\_F95 (characters 320-326), EUR\_F75 (characters 328-334), EUR\_F50 (characters 336-342), EUR\_F25 (characters 344-350), EUR\_F5 (characters 352-357), and EUR\_F0 (characters 359-364), fractiles for the distribution of estimated ultimate recovery (EUR); EUR\_F5 means, for example, that there is a 5 percent chance of greater than the listed amount of resource (in millions of cubic feet of gas)
- (27) depth\_med -- (characters 366-374) the median depth to the resource (in feet)
- (28) depth\_min -- (characters 376-384) the minimum depth to the resource (in feet)
- (29) depth\_max -- (characters 386-394) the maximum depth to the resource (in feet)
- (30) mean\_thick -- (characters 396-405) the mean net thickness of potentially productive coal (in feet)
- (31) max\_thick -- (characters 407-415) the maximum net thickness of potentially productive coal (in feet)
- (32) num\_seams -- (characters 417-425) the mean number of coal seams
- (33) thick\_interval -- (characters 427-440) the mean thickness of the coal-bearing interval
- (34) TDS -- (characters 442-446) the water quality as total dissolved solids (TDS) (in ppm)
- (35) treatment -- (characters 448-478) the present method of water treatment
- (36) C1 -- (characters 480-483) the percent of methane in the gas
- (37) C2+ -- (characters 485-487) the percent of heavier hydrocarbons in the gas
- (38) CO2 -- (characters 489-491) the percent of carbon dioxide in the gas
- (39) N2 -- (characters 493-495) the percent of nitrogen in the gas
- (40) BTU -- (characters 497-500) the heating value of the gas (in BTU)
- (41) liquids? -- (characters 502-509) whether there are liquid hydrocarbons in the gas (yes or no)
- (42) active\_mining? -- (characters 511-524) whether there is active coal mining in the play (yes or no)
- (43) seams -- (characters 526-597) which seams, if any, are being actively mined
- (44) mined\_out\_sqmi -- (characters 599-612) the mined-out area in square miles
- (45) mined\_out\_% -- (characters 614-624) the mined-out area in percent
- (46) compression? -- (characters 626-637) whether compression is needed (yes or no)
- (47) stimulated? -- (characters 639-649) whether gas wells are stimulated (yes or no)

- (48) analog\_play -- (characters 651-722) the analog play used when no production data were available
- (49) num\_cells\_mean -- (characters 724-737) the mean number of untested cells
- (50) depth\_mean -- (characters 739-748) the mean depth to the resource (in thousands of feet)
- (51) EUR\_mean -- (characters 750-757) the mean EUR (in billions of cubic feet of gas)
- (52) gas\_mean -- (characters 759-766) the mean volume of potential reserve additions of gas (in billions of cubic feet)
- (53) gas\_sd -- (characters 768-774) the standard deviation of the distribution of volume of potential reserve additions of gas (in billions of cubic feet)
- (54) to (58) -- gas\_F95 (characters 776-782), gas\_F75 (characters 784-790), gas\_F50 (characters 792-798), gas\_F25 (characters 800-806), and gas\_F5 (characters 808-814), fractiles for the distribution of volume of potential reserve additions of gas; gas\_F5 means, for example, that there is a 5 percent chance of greater than the listed amount of resource (in billions of cubic feet)

**continus.tab** (tab-delimited ASCII) or **continus.ffa** (fixed-format ASCII):  
 Input and results of continuous-type play assessment

These files contain both the input and the output from the assessment of continuous-type plays. Following 2 lines of header information, the data are presented in 59 columns:

- (1) geologists -- (characters 1-40) the geologist(s) responsible for this play
- (2) region -- (characters 42-47) the region number
- (3) province\_name -- (characters 49-81) the province name
- (4) province\_num -- (characters 83-94) the province number
- (5) date -- (characters 96-103) the date of the assessment
- (6) play\_name -- (characters 105-183) the play name
- (7) play\_num -- (characters 185-192) the play number
- (8) scenario\_prob -- (characters 194-206) the probability of occurrence of the scenario, when two separate appraisal scenarios were used
- (9) play\_type -- (characters 208-216) the play type (oil or gas)
- (10) hypo\_or\_conf -- (characters 218-229) whether the play is hypothetical or confirmed
- (11) play\_prob -- (characters 231-239) the play probability
- (12) cell\_size\_acres -- (characters 241-255) the cell size in acres
- (13) cell\_size\_sqmi -- (characters 257-270) the cell size in square miles
- (14) area\_of\_play -- (characters 272-283) the area of the play in square miles
- (15) num\_cells -- (characters 285-293) the total number of cells in the play
- (16) num\_prod\_cells -- (characters 295-308) the number of producing cells in the play
- (17) num\_nonprod\_cells -- (characters 310-326) the number of nonproducing (but tested) cells in the play
- (18) cells\_med -- (characters 328-336) the median number of untested cells in the play

- (19) cells\_min -- (characters 338-346) the minimum number of untested cells in the play
- (20) cells\_max -- (characters 348-356) the maximum number of untested cells in the play
- (21) success\_ratio -- (characters 358-370) the success ratio
- (22) to (28) -- EUR\_F100 (characters 372-379), EUR\_F95 (characters 381-387), EUR\_F75 (characters 389-395), EUR\_F50 (characters 397-403), EUR\_F25 (characters 405-411), EUR\_F5 (characters 413-419), and EUR\_F0 (characters 421-427), fractiles for the distribution of estimated ultimate recovery (EUR); EUR\_F5 means, for example, that there is a 5 percent chance of greater than the listed amount of resource (in barrels of oil or millions of cubic feet of gas)
- (29) GOR -- (characters 429-432) the gas-to-oil ratio (in cubic feet of gas to barrel of oil)
- (30) LGR -- (characters 434-438) the natural-gas-liquids to gas ratio (in barrels of liquid to millions of cubic feet of gas)
- (31) depth\_med -- (characters 440-448) the median depth to the resource (in feet)
- (32) depth\_min -- (characters 450-458) the minimum depth to the resource (in feet)
- (33) depth\_max -- (characters 460-468) the maximum depth to the resource (in feet)
- (34) targeted\_to\_play -- (characters 470-485) the fraction of untested cells likely to be targeted for the play itself
- (35) targeted\_deeper -- (characters 487-501) the fraction of untested cells likely to be targeted for deeper horizons
- (36) targeted\_shallower -- (characters 503-520) the fraction of untested cells likely to be targeted for shallower horizons
- (37) API\_gravity -- (characters 522-532) the API gravity of the hydrocarbon liquids (in degrees)
- (38) FERC\_fraction -- (characters 534-546) the fraction (0 to 1) of the play having "tight" FERC (Federal Energy Regulatory Commission) designation
- (39) off-limits\_fraction -- (characters 548-566) the fraction (0 to 1) of the play presently off-limits to drilling
- (40) stimulated\_fraction -- (characters 568-586) the fraction (0 to 1) of the play that is likely to require stimulated wells
- (41) scenario -- (characters 588-634) the scenario name, when two separate appraisal scenarios were used
- (42) distribution -- (characters 636-647) the distribution used for number of untested cells
- (43) num\_cells\_mean -- (characters 649-662) the mean number of untested cells
- (44) depth\_mean -- (characters 664-673) the mean depth to the resource (in thousands of feet)
- (45) EUR\_mean -- (characters 675-682) the mean EUR (in millions of barrels of oil or billions of cubic feet of gas)
- (46) gas\_mean -- (characters 684-694) the mean volume of potential reserve additions of gas (in billions of cubic feet)
- (47) gas\_sd -- (characters 696-706) the standard deviation of the distribution of volume of potential reserve additions of gas (in billions of cubic feet)

(48) to (52) -- gas\_F95 (characters 708-718), gas\_F75 (characters 720-730), gas\_F50 (characters 732-742), gas\_F25 (characters 744-754), and gas\_F5 (characters 756-766), fractiles for the distribution of volume of potential reserve additions of gas; gas\_F5 means, for example, that there is a 5 percent chance of greater than the listed amount of resource (in billions of cubic feet)

(53) liq\_mean -- (characters 768-776) the mean volume of potential reserve additions of liquids (in millions of barrels)

(54) liq\_sd -- (characters 778-786) the standard deviation of the distribution of volume of potential reserve additions of liquids (in millions of barrels)

(55) to (59) -- liq\_F95 (characters 788-796), liq\_F75 (characters 798-806), liq\_F50 (characters 808-816), liq\_F25 (characters 818-826), and liq\_F5 (characters 828-837), fractiles for the distribution of volume of potential reserve additions of liquid (oil for oil plays, NGL for gas plays); liq\_F5 means, for example, that there is a 5 percent chance of greater than the listed amount of resource (in millions of barrels)

## Aggregate Data

Four files in the directory "aggregat" (provnosf.tab or .ffa, provsf.tab or .ffa, regsf.tab or .ffa, and smfld.tab or .ffa) contain aggregate data for the provinces and regions from the 1995 National Assessment. All of these aggregations include only conventional resources; no unconventional resources are contained in these aggregations. The provnosf.tab or .ffa files contain the fractile distribution of undiscovered resources by province for only those accumulations greater than or equal to 1 million barrels of oil or 6 billion cubic feet of gas. The provsf.tab or .ffa files contain the fractile distribution of undiscovered resources by province for ALL accumulations, an aggregation of both large (greater than or equal to 1 million barrels of oil or 6 billion cubic feet of gas) and small accumulations (less than 1 million barrels of oil or 6 billion cubic feet of gas). The regsf.tab or .ffa files contain the fractile distribution of undiscovered resources by region for ALL accumulations, an aggregation of both large (greater than or equal to 1 million barrels of oil or 6 billion cubic feet of gas) and small accumulations (less than 1 million barrels of oil or 6 billion cubic feet of gas). The smfld.tab or .ffa files contain the fractile distribution of undiscovered resources by region for only those accumulations less than 1 million barrels of oil or 6 billion cubic feet of gas. Two versions are given: tab-delimited ASCII (.tab) and fixed-format ASCII (.ffa).

**provnosf.tab** (tab-delimited ASCII) or **provnosf.ffa** (fixed-format ASCII):

Aggregation by province of large accumulations

These files contain the fractile distribution of undiscovered resources by province only for accumulations greater than or equal to 1 million barrels of oil or 6 billion cubic feet of gas. Following two lines of header information, the data are presented in six columns:

- (1) province -- (characters 1-10) the province number
- (2) commodity -- (characters 12-21) either oil, non-associated gas, or natural gas liquids (NGL)
- (3) to (5) -- F95 (characters 23-32), F50 (characters 34-43), and F05 (characters 45-54) fractiles for the distribution of amount of undiscovered resource; F05 means, for example, that there is a 5 percent chance of greater than the listed amount of resource (in millions of barrels of oil, billions of cubic feet of non-associated gas, or millions of barrels of natural gas liquids)
- (6) mean -- (characters 56-65) the mean estimate (in millions of barrels or billions of cubic feet) of volume of undiscovered oil, non-associated gas, or natural gas liquids

**provsf.tab** (tab-delimited ASCII) or **provsf.ffa** (fixed-format ASCII):  
Aggregation by province of large and small accumulations

These files contain the fractile distribution of undiscovered resources by province for ALL accumulations, an aggregation of both large (greater than or equal to 1 million barrels of oil or 6 billion cubic feet of gas) and small accumulations (less than 1 million barrels of oil or 6 billion cubic feet of gas). Following two lines of header information, the data are presented in six columns:

- (1) province -- (characters 1-10) the province number
- (2) commodity -- (characters 12-21) either oil, non-associated gas, or natural gas liquids (NGL)
- (3) to (5) -- F95 (characters 23-32), F50 (characters 34-43), and F05 (characters 45-54), fractiles for the distribution of amount of undiscovered resource; F05 means, for example, that there is a 5 percent chance of greater than the listed amount of resource (in millions of barrels of oil, billions of cubic feet of non-associated gas, or millions of barrels of natural gas liquids)
- (6) mean -- (characters 56-65) the mean estimate (in millions of barrels or billions of cubic feet) of volume of undiscovered oil, non-associated gas, or natural gas liquids

**regsf.tab** (tab-delimited ASCII) or **regsf.ffa** (fixed-format ASCII):  
Aggregation by region of large and small accumulations

These files contain the fractile distribution of undiscovered resources by region for ALL accumulations, an aggregation of both large (greater than or equal to 1 million barrels of oil or 6 billion cubic feet of gas) and small accumulations (less than 1 million barrels of oil or 6 billion cubic feet of gas). Following two lines of header information, the data are presented in six columns:

- (1) region -- (characters 1-10) the region number
- (2) commodity -- (characters 12-21) either oil, non-associated gas, or natural gas liquids (NGL)

(3) to (5) -- F95 (characters 23-32), F50 (characters 34-43), and F05 (characters 45-54), fractiles for the distribution of amount of undiscovered resource; F05 means, for example, that there is a 5 percent chance of greater than the listed amount of resource (in millions of barrels of oil, billions of cubic feet of non-associated gas, or millions of barrels of natural gas liquids)

(6) mean -- (characters 56-65) the mean estimate (in millions of barrels or billions of cubic feet) of volume of undiscovered oil, non-associated gas, or natural gas liquids

**smfld.tab** (tab-delimited ASCII) or **smfld.ffa** (fixed-format ASCII):  
Assessment of small accumulations

These files contain the fractile distribution of undiscovered resources by region for SMALL accumulations, those accumulations less than 1 million barrels of oil or 6 billion cubic feet of gas. Following two lines of header information, the data are presented in eight columns:

(1) province -- (characters 1-10) the province number

(2) oil -- (characters 12-21) the mean estimate (in millions of barrels) of volume of undiscovered oil

(3) assoc\_gas -- (characters 23-32) the mean estimate (in billions of cubic feet) of volume of undiscovered associated gas

(4) non-assoc\_gas -- (characters 34-46) the mean estimate (in billions of cubic feet) of volume of undiscovered non-associated gas

(5) total\_gas -- (characters 48-57) the mean estimate (in billions of cubic feet) of volume of undiscovered total natural gas (associated and non-associated gas)

(6) assoc\_gas\_liquids -- (characters 59-75) the mean estimate (in millions of barrels) of volume of undiscovered associated gas liquids

(7) non-assoc\_gas\_liquids -- (characters 77-97) the mean estimate (in millions of barrels) of volume of undiscovered non-associated gas liquids

(8) total\_ngl -- (characters 99-108) the mean estimate (in millions of barrels) of volume of undiscovered total natural gas liquids (associated and non-associated)

### **Region, Province, and Play Codes**

These files (in the directories "play" and "province") contain the code numbers and official names for the USGS assessment regions, provinces, and plays. Two versions are given: tab-delimited ASCII (having a .tab extension) and fixed-format ASCII (having an .ffa extension).

**play.tab** (tab-delimited ASCII) or **play.ffa** (fixed-format ASCII):  
Play numbers and names

This file gives the play numbers and names. The first two digits of the play number (the first digit in three-digit play numbers) refer to the main province with which the play is associated. Following two lines of header information, the data are presented in two columns:

- (1) play\_num -- (characters 1-8) the play number
- (2) play\_name -- (characters 10-136) the play name

**province.tab** (tab-delimited ASCII) or **province.ffa** (fixed-format ASCII):

Province and region numbers and names

This file gives the region names and numbers, the province names and numbers by region, and the geologist(s) responsible for assessment of each province. Following two lines of header information, the data are presented in five columns:

- (1) region\_num -- (characters 1-10) the region number
- (2) region\_name -- (characters 12-52) the region name
- (3) province\_num -- (characters 54-65) the province number
- (4) province\_name -- (characters 67-108) the province name
- (5) geologists -- (characters 110-140) the geologist(s) responsible for the assessment of that province