

Diamond Core #1 (Corrected depth 5685-5695). Cut 10', recovered 10' being 1' sd: gry, V F, tight, V shaley, w/thin sh lamin. tight poro, no stain, lt-dull-spotted fluor, lt cut, lt odor. 1' sd: as above, tight poro, no stain, no fluor, trace of cut, lt odor. 1' sd: as above, tight poro, no stain, fair-spotted-dull fluor, lt cut, lt odor. 1' sh: dk gry to blk, V sdy, tight poro, no stain, lt-spotted-dull fluor, lt cut, lt odor. 1' sd: gry, V F, tight, V shaley, w/numerous thin sh lam. w/sctd. lt bleeding oil & Vy tight vert. frac., tight poro, no stain, fair to dull fluor in frac, lt cut, lt odor. 1' sh: blk, no fluor, no cut, no odor. 1' sd: gry, F, w/numerous thin sh. lam., Vy shaley w/vert. frac Vy tight poro, no stain, no fluor, trace cut, no odor. 1' sh: blk, sli sdy w/thin sd lam. & vert frac, tight poro, no stain, no fluor, trace cut, lt odor. 1' sd: gry, Vy F, sli calc cem, Vy shaley, w/vert frac., tight poro, no stain, no fluor, trace cut, lt odor. 1' sd: as above, w/thin sh. lam. tight poro, no stain, no fluor, trace cut, no odor.

Diamond Core #2 (Corrected depth 5696-5716). Cut 20', recovered 20' being 2' sd: gry, F to M, sltly shaley, calc, vert frac sltly friable poro, no stain, trace PP Gold fluor, no cut, no odor. 8½' sd: gry, med. sltly calc w/6" Ls @ 5694', friable poro, no stain, trace PP Gold fluor, no cut, no odor. ½' lime-stone, gry, Fx. dense poro, no stain, no fluor, no cut, no odor. 3' sd: gry, F to med, w/thin sh lam. & bleeding salt water, laminated tight poro, no stain, trace PP Gold fluor, no cut, no odor. ½' sd: gry, F to med, w/thin sh lam., laminated tight poro, lt stain in lam., fair fluor in lam, lt cut, good odor. ½' sd: gry, F to med grain, Vy friable poro, fair stain, good fluor, cut and odor. ½' sd: gry, F to med grain, bleeding salt water, friable poro, no stain, fluor, cut or odor. 4½' sd: gry, F to med grain, bleeding salt water, top 6" lime friable poro, no stain, fluor, cut or odor.
No apparent dip.

DST #1 (5638-5716). Open 2 hours, weak blow of air throughout test, rec. 105' uncut drilling fluid / 90' oil & gcm.
FP 70-118# 15" SIP 308#

Diamond Core #3 (6163-6212). Cut 48', recovered 30' being 2' sd: gry, F to med, sctd. calc. cem. w/4" of well cemented sand, vy calc. friable poro, trace sctd. stain, dull spotted yellow fluor, trace cut, good odor. 1' sd: gry, F to med, calc. cem., sl tight poro, no stain, fluor, cut or odor. 1' sd: gry, F to med, sctd. calc. cem. friable poro, fair sctd stain, dull spotted yellow fluor, trace cut, good odor. 2' sd: as above, friable poro, no stain, fluor, cut or odor. 1' sd: as above to more tightly cem. sli friable poro, fair sctd stain, lt fluor, trace cut, good odor. 2' sd: as above, sli friable poro, good stain, good fluor, good cut, good odor. 3' sd: gry, med, sctd. calc. cem. friable poro, good sctd. stain, good spotted fluor, good stain & odor. 5' sd: as above w/4" streak of vy dense xln gry sdy ls friable poro, no stain, fluor, cut or odor. 1' sh: blk, no fluor, cut nor odor. 1' sd: gry, med, sctd. calc, cem. friable poro, good stain, fluor, cut and odor. 4' sd: as above, friable poro, no stain, fluor, cut, odor. 1' sd: as above, friable poro, good sctd. stain, stks. lt. spotted fluor, trace cut, fair odor. 2' sd: as above w/6" streak of vy dense xln, tan, ls, friable poro, no stain, fluor, cut, odor. 1' sd: gry, F to med, well cem. tight poro, no stain, fluor, cut, odor. 2' Ls: tan, xln, vy dense poro, no stain, fluor, cut, odor.
DIP: 0-2° Dip - fair @ 6183' in shale bedding plane.

DST #2 (6150-6212). Open 3 hours, fair blow of air, increasing steadily for 45 min. to a strong blow throughout test. Recovered 105' uncut drilling mud / 180' sli oil, gas and salt water cut drilling mud / 90' salt water cut drilling mud / 180' salt water w/ammoniacal odor, 85,000 PP chloride.
FP 40-315# 30" SIP 1885#

Diamond Core #4 (6305-6325). Cut 20', recovered 14½' being 5' sd: gry, med, calc. cem., sli friable poro, no stain, fluor, cut, odor. 2' sd: gry, med, very limey, hard, vy tight poro, no stain, fluor, cut, odor. 3' sd: gry, med, sctd. calc. w/4" thin sh lam. @ top, sli friable poro, fair stain, good fluor, cut and odor. 1' sh: gry, sdy, no stain, no fluor, trace cut, no odor. 1' Ls: tan, xln, vy dense, sdy dense poro, no stain, fluor, cut, odor. 1' sd: gry, med, calc. cem. sli friable poro, no stain, fluor, cut, odor. 1' sd: as above, sli friable poro, lt stain, good fluor, cut and odor. 6" sd: gry, Fn, calc. cem., hard, w/thin sh lamin., tight poro, no stain, fluor, cut, odor.
DIP: 0-1° Dip - good @ 6305'-25' in sh. & sd. lamin.

DST #3 (6258-6327). Packer failed to hold. No test.

DST #3-A (6261-6327). Packer failed to hold. No test.

DST #3-B (6225-6327). Open 2 hours, strong blow air throughout test. Recovered 480' drilling fluid / (1) 180' gc drlg. fluid, / (2) 270' Hgc drlg. fluid, / (3)

The following information was obtained from the records of the
 Department of the Interior, Bureau of Land Management, at
 Washington, D. C., on the date of the above mentioned
 investigation, and is being furnished to you for your
 information. It is to be understood that this information
 is being furnished to you for your information only, and
 is not to be used for any other purpose. It is to be
 understood that this information is being furnished to you
 for your information only, and is not to be used for any
 other purpose. It is to be understood that this
 information is being furnished to you for your information
 only, and is not to be used for any other purpose.

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 15, 1877. It is a formal communication, and it is written in a very formal and dignified style. The President begins by addressing the Congress, and then he proceeds to discuss the state of the Union. He mentions the progress of the country, the success of the government, and the well-being of the people. He also mentions the importance of the Congress, and the role of the President. The letter is a very important document, and it is a very good example of the style of the President's communications.

[illegible]

Journal of Interpersonal Violence 28(18) 3479-3493

1. [redacted] 2. [redacted] 3. [redacted] 4. [redacted] 5. [redacted] 6. [redacted] 7. [redacted] 8. [redacted] 9. [redacted] 10. [redacted] 11. [redacted] 12. [redacted] 13. [redacted] 14. [redacted] 15. [redacted] 16. [redacted] 17. [redacted] 18. [redacted] 19. [redacted] 20. [redacted] 21. [redacted] 22. [redacted] 23. [redacted] 24. [redacted] 25. [redacted] 26. [redacted] 27. [redacted] 28. [redacted] 29. [redacted] 30. [redacted] 31. [redacted] 32. [redacted] 33. [redacted] 34. [redacted] 35. [redacted] 36. [redacted] 37. [redacted] 38. [redacted] 39. [redacted] 40. [redacted] 41. [redacted] 42. [redacted] 43. [redacted] 44. [redacted] 45. [redacted] 46. [redacted] 47. [redacted] 48. [redacted] 49. [redacted] 50. [redacted] 51. [redacted] 52. [redacted] 53. [redacted] 54. [redacted] 55. [redacted] 56. [redacted] 57. [redacted] 58. [redacted] 59. [redacted] 60. [redacted] 61. [redacted] 62. [redacted] 63. [redacted] 64. [redacted] 65. [redacted] 66. [redacted] 67. [redacted] 68. [redacted] 69. [redacted] 70. [redacted] 71. [redacted] 72. [redacted] 73. [redacted] 74. [redacted] 75. [redacted] 76. [redacted] 77. [redacted] 78. [redacted] 79. [redacted] 80. [redacted] 81. [redacted] 82. [redacted] 83. [redacted] 84. [redacted] 85. [redacted] 86. [redacted] 87. [redacted] 88. [redacted] 89. [redacted] 90. [redacted] 91. [redacted] 92. [redacted] 93. [redacted] 94. [redacted] 95. [redacted] 96. [redacted] 97. [redacted] 98. [redacted] 99. [redacted] 100. [redacted]

450' Hgc & sli oil cut drlg. fluid, total fluid 1380'. Chloride content: (1) 5,500 PPM, (2) 33,400 PPM, (3) 54,500 PPM.
 FP 260-650# 30" SIP 1375#

Diamond #5 (6327-6347). Cut 20', recovered 20' being 1' sd: gry, med, calc cem, friable poro, no stain, fluor, cut not tested, no odor. 2' sd: as above, sli friable poro, no stain, fluor, cut not tested, no odor. 2' sd: as above, friable poro, no stain, no fluor, cut not tested, no odor. 1' sd: as above to well cemented, sli tight poro, no stain or fluor, cut not tested, no odor. 2' sd: as above, friable, no stain or fluor, cut not tested, no odor. 1' sd: as above to well cemented, sli tight poro, no stain, fluor nor odor. 1' sd: as above, sli friable, no stain, fluor or odor. 1' sd: as above, friable poro, no stain, fluor or odor. 1' sd: as above, sli friable, no stain, fluor, or odor. 2' sd: as above, friable poro, no stain, fluor or odor. 3' sd: as above, sli friable poro, no stain, fluor or odor. 3' sd: as above, friable poro, no stain, fluor, or odor.
 DIP: No dip apparent.

Diamond Core #6 (6395-6401). Cut 6', recovered 5' being 3' sd: gry, vy F, vy tightly calc. cem. bleeding oil & gas, w/vert. frac., tight poro, excellent stain, fluor, cut and odor. 1' sh: blk w/ vert. frac., no poro, stain, fluor, cut, or odor. 1' sh: blk, sandy, w/vert. frac., tight poro, no stain, lt dull spotted fluor, good cut, good odor.
 DIP: Fair 0° dip, 6395-6401 in sh. bedding plane.

DST #4 (6380-6401). Open 4 hours, good strong blow of air steady for 3½ hours, weak blow for ½ hour. Recovered 5400' of fluid being 180' uncut drlg. mud, / 1580' sli gcm (drill pipe tried to unload), / 3640' gcm, water and scum of oil, remainder of fluid heavy gas cut salt water. 56,000 PPM chloride.
 FP 425-2660# 30" SIP missed due to packer unseated

Diamond Core #7 (6745-6753½). Cut 8½', recovered 8½' being 3' sd & sh: dk gry, vy F, vy thinly lamin., vy hard, w/vert. frac., very tight poro, trace stain, fair scd. fluor, trace cut, good odor. 1' sd: gry, med to fine, sli calc, w/ 1" blk shale cap & 1" blk shale at bottom, w/vert. frac., very tight poro, fair stain, excellent fluor, cut and odor. 4½' sd: gry, med to fine, calc, w/ evidence of vert. frac. in bottom 2½' of core, very tight poro, no stain, fluor, cut, odor.
 DIP: Good 3° dip @ 6747' in sh. & sd. laminations.

Diamond Core #8 (7069-7094). Cut 25', recovered 25' being 3' sh & sd: vy thinly laminated, w/vert. frac., very tight poro, no stain, fluor, or odor. 1' lime: gry to tan, xln, sli sdy, w/vert. frac., vy dense, no stain, fluor, or odor. 4' sd & sh: vy thinly laminated, w/vert. frac., vy tight, no stain, fluor, trace odor. 2' lime: gry to tan, xln, sli sandy, w/vert. frac., vy dense, no stain, fluor, no odor. 2' sd & sh: vy thinly laminated, w/vert. frac., vy tight, no stain, fluor, trace of odor. 2' lime: gry to tan, xyl, sli sandy, w/vert. frac., vy dense, no stain, fluor, no odor. 11' sd: gry, F to M, sli calc cem, sli tight poro, no stain, fluor, or odor, (cut not tested in above core).
 DIP: Good 3° dip, 7069-94 in sh. & sd. laminations.

Diamond Core #9 (7253-7278). Cut 25', recovered 25' being 1' sd: gry, FG, sli calc, tight, well consolidated-hard & firm, no poro, stain, fluor, cut or odor. 3" vy dk gry sh: laminated w/sd strks, no stain, fluor, cut or odor. 1' 9" sd: gry, F G, sli calc, tight, well consolidated-firm, no poro, stain, fluor, cut or odor. 1' shale & sd: v thinly lam. blk sh & F G grain, gray tight sd, no stain, trace scd fluor in laminations, trace cut, no odor. 1' F grain, gry sd: A.A. to V.F. grain-tight well cemented, sli calc, w/sploched zones of good stain & fluor, Barren zones well scd. w/carb mat., lt cut, no odor. 6' sd: F G, gry, tight-well consol. calc w/scd. carb. mat. sli silty cem mat., core center has salty taste, no stain, fluor, cut or odor. 2' sd: A.A. to vy tight, argillaceous, silty cem. mat., w/tr dk gry sh lam, w/v tight vert. frac. in bottom ft. (good to excellent fluor in frac.), trace of stain, no cut, no odor. 2' sd & sh: vy sdy sh w/small zones of free sd, in unorganized manner, vert frac poro, trace stain, good scd fluor, trace cut, excellent odor. 8" lime: den, gry, hard, xln, v sdy, vert frac poro, no stain, fluor, cut, or odor. 1' 4" sd: dk gry, V F grain to silty-hard-vy well consol.-sli calc w/trace argillaceous mat., vert. frac. poro, no stain, fluor, cut or odor. 2' sh & sd: vy thinly lam., F G, gry-sd & dk gry sh, vert frac, no stain, trace fluor, no cut, no odor. 1' 5" dk gry to blk, silty shale: vert frac, no stain, fluor, cut or odor. 2' 5" sd: med grain, gry, w/silty cem. mat.-sli calc, bleeding lightly, tight, well consolidated-hard, fair stain, excellent yellow-fluor, no cut, good odor. 1' sd: med to F grain-Hard-tight, well cemented, no poro, stain, fluor, cut or odor.
 DIP: Fair 2° dip, 7253-78 in shale bedding plane.

Diamond Core #10 (7278-7298). Cut 20', recovered 20' being 1' sd: top 6" v shaley, bottom 6", gry, med, calc, v hard, very tight, lt scd. stain, good scd fluor, good cut, good odor. 3' sd: A.A. very tight, no stain, fluor, cut or odor. 1' sd: A.A. to very limey, very tight, no stain, fluor, cut or odor. 2' shale: blk, w/vert frac, no show. 1' lime: gry to tan, xln, very hard & sdy, w/tight vert frac, bleeding salt water, very dense, NS. 1' sd: gry, F to M, calc, cem, very hard, w/top 6" laminated w/shale & bleeding oil in vert frac, very tight, fair stain in lamin & vert frac, good scd fluor, lt cut, good odor. 7' sd: gry, F to M, calc cem, very hard w/3" Ls, tan xln, very hard @ 7292', very tight, no show. 4' sd: gry, F to M, calc cem, bleeding salt water, w/3" streak blk sh @ 7296', very tight, no show. DIP: No dip apparent.

DST #5 (7212-7299). Open four hours 30 minutes, light blow of air, decreased to very weak blow of air at end of test. Recovered 96' sli 0 & gcm / 90' gcm / 90' gcm & salt water cm / 90' gc salt water / 45' H gcm salt water (tested 32,000 PPM chloride).

FP 30-130#

30 Min. SIP 1380#

Diamond Core #11 (7299-7349). Cut 50', recovered 50' being 5' sd: gry, F-M, sli calc cem, vy tight, no stain, fluor, cut or odor. 3' sd: gry, med, sli calc cem, bottom 3" blk sh, tight, no show. 1' sd: gry F, sli calc, vy hard, vy tight, no show. 1' sd: gry, med, sli calc, sli friable, no show, 29' sd: gry, F-M, sli calc cem, hard, vy tight, no show. 1' sd: gry, med, sli calc cem, sli friable, no show. 4' sd: gry, F-M, sli calc cem tight, no show. 1' sd & sh: laminated, tight, no stain, dull spotted fluor in sh, cut not tested, sli odor. 3' sd: gry, F-M, sli calc cem, tight, no show. DIP: No dip apparent.

Diamond Core #12 (7423-7448). Cut 25', recovered 19' being 4' sd & sh: vy thinly lamin, w/tight vert frac, vy tight poro, no stain, vy dull sptd yellow fluor, no cut, sli odor. 2' lime: tan to gry xlyn, vy sdy, hard w/tight vert frac, vy dense, no show. 4' sd: gry, F-M, sli shly, vy calc, well cem w/1" thinly lamin sd & sh @ 1st foot & 3" thinly lam sd & sh @ bottom of 3rd foot, vy tight, no show. 2' sd & sh: laminated to vy thinly laminated, vy tight, no stain, vy dull sptd fluor in sh laminations, no cut, sli odor. 7' sd: gry, F-M, w/3" thinly lam sd & sh @ bottom of 4th foot, vy tight, no stain, fluor or odor.

DIP: Good 2-3° dip, 7423-41, in sh & sd laminations.

Diamond Core #13 (7474-7499). Cut 25', recovered 25' being 1' 3" sd: gry, med hard, vy calc w/3" sh @ bottom, vy tight, no stain, trace scd fluor, fair odor. 9" sd: gry, F-M, calc, tight, sli stain, good fluor, good odor. 1' sd & sh: vy thinly lamin, tight, no stain, trace fluor, no odor. 2½' lime: gry, F-xlyn, sli sdy, dense, no poro, stain, fluor, or odor. 1' sd: gry, F, calc, w/bottom 6" good show, tight poro, no stain, trace fluor top 6" good fluor, bottom 6" sli odor. 1' sd & sh: vy thinly laminated w/bottom 6" sd gry, F-M, hard, calc, tight, no show. 1' sd: gry, F-M, hard, calc, tight, no stain, good fluor & odor. 6" sd: gry, F, sli laminated w/sh, tight, no stain, fair fluor in lamin, sli odor. 2' sd: gry, vy F-M, calc shaley w/6" blk sh @ top, tight, no stain, fair sptd fluor, sli odor. 4' sd: gry, vy F, vy calc w/6" thinly laminated sd & sh @ bottom, vy tight, no show. 2' sh: blk, w/vert frac having a sli oil bleed, no cementation, sli stain in frac, fair fluor in frac, sli odor. 1' sh: dk gry to blk, limey, w/vert frac having a fair bleeding of oil, no cementation, sli stain in frac, fair fluor, sli odor. 2' sh: blk, w/vert frac having a light bleeding of oil, no cementation, sli stain in frac, sli fluor in frac, sli odor. 2' sd & sh: thinly laminated, w/vert frac having a lt oil bleed, no cementation, vy tight poro, no stain, light fluor in frac, trace of fluor in lamin, trace of odor. 1' sh: blk, sli sdy, w/vert frac having oil bleed, no cementation, no stain, sli fluor in frac, sli odor.

DIP: Good 0° dip @ 7467' in sh & sd laminations.

Diamond Core #14 (7499-7520). Cut 21', recovered 21' being 1' sd & sh: vy thinly laminated, vy tight, sli scd stain, scd dull fluor, trace cut, good odor. 1' A.A.: vy tight, no stain, fluor, cut, good odor. 1' sd: gry vy F grain, well cemented, hard, w/vitreous luster, w/scd sh partings, vy tight, no stain, good fluor in sh partings, no cut, no odor. 1' A.A.: vy tight, no show. 2' sd & sh, vy thinly lamin, w/6" sptd scd fluor at top & bottom of interval, vy tight, sli scd stain, good scd fluor, trace cut, fair odor. 1' sd: gry vy F grain, sli calc, silty, vy hard, sli shaley, vy tight, no show. 2' sd: gry, vy F grain, limey, vitreous luster, vy tight, no show. 9' sd, gry F-M grain, vy silty, sli calc cem, tight, no show. 1' sd: gry F-M grain, calc, w/vitreous luster, vy tight, no show.

DIP: Good 3° dip, @ 7500', in sh & sd laminations.

NOTE: Total of 5' of vy dull gold to yellow fluor in shale partings.

DST #6-A (7458-7520). Packer failed.

DST #6-B (7428-7520). Open 42 min., tool opened w/strong blow of air, continued throughout test, slowly losing mud, est. 200' mud loss, recovered 1170' uncut drilling mud / 1710' sli gcm.

FP 880-1760#

No BU pressure taken.

Diamond Core #15 (7560-7586). Cut 26', recovered 26' being 6" sd & sh: thinly laminated, vy tight, no stain, sctd dull fluor, sli odor. 5' 6" sd: gry, F-M, silty, sli calc cem, well cemented, tight, no stain, fluor, or odor. 5' sd: gry, F, calc cem, well cemented. w/vitreous luster, hard vy tight, no stain, fluor or odor. 2' sd: A.A. to sli shaley & limey, w/1" streak blk sh @ 7572', vy tight, no stain, fluor or odor. 4' 6" sd: gry, F-M, calc cem, well cemented w/vitreous luster, hard, vy tight, no stain, fluor, or odor. 1' sd & sh: vy thinly lamin, sli limey, vy tight, trace sctd stain, sctd dull fluor, fair odor. 2' 6" sd: gry, F, calc cem, w/vitreous luster, w/sctd lime pieces, w/3" tan lime @ 7580', vy tight, no stain, fluor, odor. 1' lime: tan, xlyn, sli sdy, vy dense, no show. 1' sd: gry, F, silty, calc cem, w/vitreous luster, vy tight, no show. 6" sh & sd: vy thinly laminated, limey, vy tight, no stain, sctd dull fluor, sli odor. 6" sd: gry, F-M, silty, calc cem, well cemented, vy tight, no show. 1' lime: gry to tan, xlyn, vy sdy & dense, no show. 1' sd: gry, F, vy silty, well cemented, sli calc w/3" limey blk sh, vy tight, no show, cut not tested on above core.

DIP: Good 3° dip, 7560-7586, in sh & sd lamin.

DST #7 (7544-7586). Open 1 hour, weak blow of air & died in 6 min., reopened tool w/weak blow of air & died in 4 min., rec. 175' uncut drilling mud / 90' sli O & gcm.

FP 95-130#

15 Min. SIP 225#

DST #8 (7644-7673). Open 4 hours, strong blow to very weak in 4 hours. Recovered 450' drilling mud / 360' gc & sli ocm / 630' very H gc & sli ocm / 270' very H gc & oc & sli xw cm / 450' H O & gc xw. No Free Oil present, 68,000 PPM chloride, 20 units Methane (Bottom sample).

FP 590-1035#

15 Min. SIP 2400#

Diamond Core #16 (7673-7698). Cut 25', recovered 25' being 2' sd: gry, F, silty calc silty, vy tight, no show. 2' A.A.: vy tight, no stain, good blue white fluor in frac, fair odor. 3' A.A.: vy tight, no show. 3' 6" A.A.: vy calc, vy tight, no show. 1' 6" lime, gry-tan, F xlyn, vy dense, no show. 2' sd: gry F vy calc silty w/sctd lime fragments, tight, no show. 1' A.A.: vy tight, no stain, fair blue white fluor, fair odor. 2' A.A.: vy tight, no stain, fair blue-white fluor, sli odor. 2' A.A.: vy tight, no show. 1' lime: blk-brn F xlyn, sli shaley, vy dense, no show. 2' 6" sd: gry, F vy calc w/vitreous luster, vy tight, no show. 1' 6" limestone: gry to tan, F-xlyn, vy dense, no show. 1' sd: gry, F, vy silty, vy tight, no show.

DIP: 2° dip, fair to good, @ 7693', in lime w/shaley partings.

NOTE: This entire core has multiple, near vertical fractures.

Diamond Core #17 (7698-7723). Cut 25', recovered 25' being 4' sd: gry, F, silty, calc, well consolidated, hard bleeding salt water, @ 7700 vy tight, NS. 1' sd: A.A. w/2" streak of blk limey sh bleeding salt water @ 7703, vy tight, no stain, trace sptd fluor, no cut tested, sli odor. 4' sd: gry, F, silty, sli calc, hard w/6" streak of blk limey sh w/tr fluor @ sh partings, vy tight, no show. 1' sd: gry, F-M, sli calc, silty, sctd cem friable, no stain, good to fair fluor, good odor. 2' sd: gry, F, silty well cem w/calc, hard w/vert frac w/lt bleeding of oil, vy tight, lt stain in frac, good fluor in frac, fair odor. 6½" sd: gry, F-M, silty, sli calc cem hard, w/4" streak of sh @ 7713, tight poro lt stain, good fluor, good odor. 1' lime: gry to tan, F-xlyn, vy dense & hard, no show. ½" sd: gry, F-M, silty, sli calc cem hard, tight, sli stain, good fluor, good odor. 2' sd: gry, F-M, sli silty, vy calc, hard, vy tight, no stain, good sptd fluor, good odor. 1½" sd: gry, F, vy silty, sli calc, hard, bleeding salt water, w/2" streak of blk sh @ 7720', vy tight, no show. 1½" sh & sd: vy thinly laminated to solid blk sh, vy tight, no show.

DIP: Fair 3° dip, 7722', in shale bedding plane.

NOTE: A vertical fracture extends from 7702-7709 in this core.

DST #9 (7669-7723). Open 4 hours, light blow air increased to good blow end of 10 min., continued steady for 1 hour 30 min., good strong blow of air at end of test. Recovered 66' sli O & gcm / 174' H g & sli ocm / 174' sli O & gc xw, xw tested 46,000 PPM chloride.

FP 65-195#

15 Min. SIP 360#

Diamond Core #18 (7723-7727). Cut 4', recovered 4' being 3' sh: blk, no show. 1' sh: blk & dk gry to brn shaley Fx Ls, no show.

NOTE: Entire core was highly fractured.

DIP: Fair 3° dip, 7723-27, in shale bedding plane.

[illegible]

Diamond Core #19 (7727-7738). Cut 11', recovered 11' being 2' lime: brn-coarsely xyln-vy dense, hard w/sctd stain & active bleeding of lt oil from sctd minute frac, no poro, excellent sctd stain, fluor, cut and good odor. $\frac{1}{2}$ ' sh: blk-dense-hard, no show. $\frac{1}{2}$ ' lime: brn-vy hard, M xyln, vy fossiliferous, no show. 2' sh: blk-dense, no show. $1\frac{1}{2}$ ' lime: brn, dense, M xyln, vy hard, NS. $\frac{1}{2}$ ' sh: blk, dense, sli calc to limey, no show. 1' lime: brn-dense-hard-massive, NS. $\frac{1}{2}$ ' sh: blk-hard-dense, NS. $\frac{1}{2}$ ' lime: brn-xyln to massive, vy hard, dense, NS. $\frac{1}{2}$ ' lime: blackish brn-hard-dense, vy argillaceous, no show. $1\frac{1}{2}$ ' lime: brn-vy dense, vy hard, M xyln, NS.
DIP: 3 to 7° dip, poor to fair, 7727-38, shale bedding plane.

Diamond Core #20 (7754-7766). Cut 12', recovered 12' being $\frac{1}{2}$ ' sh: blk, no show. $1\frac{1}{2}$ ' sd: gry M silty, no calc cem, but only slightly friable, lt stain, excellent fluor, good cut, good odor. $\frac{1}{2}$ ' dolo: tan xyln-gran, no show. $\frac{1}{2}$ ' sd & sh: dolo thin banded, vy tight, no stain, good fluor in frac & lam, cut not tested, lt odor. $\frac{1}{2}$ ' sd: gry M vy dense, vy calc, vy tight, no show. $\frac{1}{2}$ ' sd: gry, vy F, silty w/paper thin sh lam, vy tight, no stain, trace of fluor in frac, cut not tested, no odor. 1' sd: tan, M vy calc, vy tight, NS. $5\frac{1}{2}$ ' sd & sh, thinly laminated, vy tight, no stain, trace of fluor in frac & lam, lt odor. $1\frac{1}{2}$ ' sd: gry, F, vy silty, sli calc, tight, lt stain, good fluor, fair cut, good odor.
NOTE: Multiple fracture, near vertical, without secondary cementation.
DIP: Good 2° dip @ 7762' in sh & sd laminations.

DST #10 (7722-7767). Open 3 hours 15 min., weak blow of air increased to strong blow at end of 16 min, continued throughout test. Recovered 95' vy sli O & gcm (oil visible under fluorescent light).
FP 20-40# 15 Min. SIP 45#

Diamond Core #21 (7767-7773 $\frac{1}{2}$). Cut $6\frac{1}{2}$ ' recovered $6\frac{1}{2}$ ' being $\frac{1}{2}$ ' sand: F, hard, tight calc, well cem, w/a broken vert frac w/no secondary cementation, no poro, stain, fluor, cut nor odor. $\frac{1}{2}$ ' sd & sh: vy thinly lam, F-M, gry sd & dk gry sh w/sctd fluor in sd, vert frac, above dies out in bottom $\frac{1}{2}$ ', no poro or stain, lt sctd, fluor, lt cut no odor. 1' sd: gry F, hard, tight, calc, well cem, no poro, trace stain, good to excellent fluor, fair cut, good odor. 1' sd: A.A. but sli darker in color, vy tight, NS. 1' sd: gry, vy F, well cemented, tight, NS. $1\frac{1}{2}$ ' sd & sh: vy thinly lam, sli calc, fluor in sand, no poro, no stain, trace sctd fluor, no cut, no odor. 1' sd: vy F, gry, well cemented, sli calc, vy tight, hard, no poro, lt stain, excellent bright yellow white fluor, lt cut, excellent odor.
DIP: Good 2° dip @ 7768' in sh & sd laminations.

Diamond Core #22 (8120-8140). Cut 20', recovered 20' being 4' lime: Homog. mixed w/blk sh, Top 2' having multiple vert frac filled w/calc 1/100", no poro, no stain, no fluor, cut not tested, fair odor. 1' lime: blk-brn, vy finely xyln, vy dense, no poro, stain, fluor, cut, fair odor. 1' sh: blk, no poro, stain, fluor, cut, fair odor. 5' lime: Homog. mixed w/blk sh, no poro, stain, fluor, cut, fair odor. 3' sh: blk, no show, fair odor. 1' lime & sh: Homog. mixed w/ $\frac{1}{4}$ " thickness $\frac{1}{2}$ " lime & shale lam, lime-brn-blk, vy coarsely xyln w/sctd vy dull yellow fluor, no poro, no stain, trace fluor in limestone, trace cut, fair odor. 2' sh: blk w/disseminated frag of Ls, brn-blk Fnlly xyln, no poro, no stain, no fluor, cut not tested, fair odor. 3' sh: blk, no show, fair odor.
DIP: Fair 1 to 2° dip, 8120-40, in sh bedding planes.
NOTE: Entire core contained one near vertical fracture w/no secondary material.

Diamond Core #23 (8818-8829). Cut 11', recovered 10' being 3' sh: blk, sli sdy. 1' sh: A.A. w/vy thin streaks of brn xyln Ls. 1' sh: blk, sli sdy, 1' sh: blk, 2' sh: blk, sli sdy. 2' sh: blk, sdy. No poro, no stain, no fluor, cut not tested in above core, lt odor throughout.
DIP: Fair 2° dip 8819-29 in shale bedding planes.

Diamond Core #24 (8893-8918). Cut 25', recovered 21' being $\frac{1}{2}$ ' lime: gry, sub-xyln, vy sdy, no show. $2\frac{1}{2}$ ' sd: gry, sli calc, vy tight, no poro, no stain, good sctd fluor, trace cut, fair odor. 1' sd: gry, F, sli calc, vy tight, vitreous luster, no show. 1' sd: A.A. only vy shaley, no show. 2' sd: gry, vy F, sli calc, vy tight, vitreous luster, no poro, no stain, trace sctd fluor, trace cut, trace odor. $1\frac{1}{2}$ ' sh: blk, no show. $\frac{1}{2}$ ' sh: gry, F, sli calc, tight, w/thin sh lam, no show. 4' core lost while making connection. 1' lime: tan to gry, xyln, dense, no show. $1\frac{1}{2}$ ' sh: blk, sdy, no show. $1\frac{1}{2}$ ' sd: gry, vy F, sli calc, vy tight, vitreous luster, no poro, no stain, good sctd fluor, trace cut, fair odor. 2' sd: A.A. to sli shaley w/ $\frac{1}{2}$ " sh streak @ 8911', NS. 1' sh: blk, sli sdy, no show. 1' sd: gry, vy F, vy tight, vitreous luster, no poro, no stain, good sctd fluor, trace cut, fair odor. 4' sd: gry, vy F, vy tight, limey, w/vitreous luster, vy hard, w/vy tight vert frac from 8914-16, no fill, NS.
DIP: Fair 3 to 5° dip, 8908-12, in sand with sh stringers.

Diamond Core #25 (9139-9152). Cut 13', recovered 12' being 2' sd: tan to gry, vy F, vy limey & silty with multiple vert. frac. filled w/brn, c-xyl, lime, bleeding oil & gas in fractures, trace porc. inter xyl in frac, no stain, excellent fluor in frac, excellent odor. 2' sd: A.A. w/1 vy tight vert frac w/ no fill & no bleeding of oil or gas, vy tight poro, no stain, no fluor, excellent odor. 1' sd & sh: vy thinly laminated, very tight, NS. 2' sh: blk, sli sdy, NS. 1' sh: blk, containing numerous pyritized fossils & grading from sd to blk, xyl dolo, NS. 2' sh: blk, NS. $\frac{1}{2}$ ' sd: gry, vy limey & tight w/vitreous luster, NS. $\frac{1}{2}$ ' lime: blk, vy F-xyl, vy dense & shaley w/conchoidal fractures, NS. 1' sh: blk, w/sctd. fragments of sd, NS.
DIP: Poor (?) 25° dip @ 9147' in shale bedding planes; no dip apparent in Core #25 except in this one foot.

Diamond Core #26 (9154-9170). Cut 16', recovered 16' being 1' sd: tan to gry, Ls & silty w/mult. bleeding gas, vert fractured, fill br GN, Ls & calcite, no poro, no stain, no fluor, cut not tested, good odor. 2' sh: blk, NS. $\frac{1}{2}$ ' lime: blk to brn, med N, vy dense, NS. $4\frac{1}{2}$ ' sh: blk, NS. 1' sh: blk, sli sdy, NS. 3' blk sh: NS. 2' sd: tan, VFG, sil cemented, almost quartz, vy thin seams of calc & sctd. thin sh lam, no poro, stain, fluor, trace odor. 1' sd: A.A. w/sctd. sh frag, no poro, no stain, no fluor, trace odor. 1' sd & sh: vert divided; sd is tan, vy F, sil cem, almost quartzitic, NS.
NOTE: Entire core contained small near vert frac filled w/Ls & calcite.
DIP: Good 18-28° dip 9154-70 in shale & sand laminations.

Diamond Core #27 (9170-9170 $\frac{1}{2}$). Cut $\frac{1}{2}$ ', recovered 0', core lost, no recovery.

DST #11 (9127-9172). Open 3 hours, strong blow throughout test, recovered 45' drlg. mud w/trace of fluorescence, 3100 PPM chloride.
FP 30-30# 15 Min. SIP 55#

Diamond Core #28 (9172-9180). Cut 8', recovered 6' being 1' sh: blk, w/thin sd streaks sctd throughout, sd vy hard, no show. 2' sd: gry, VFG, well cem, variety of calc & silica quartz w/sh frags, sctd throughout, trace gilsonite, NS. 3' sd & sh: no description, NS.
DIP: No dip report on Core #28.

Diamond Core #29 (9180-9205). Cut 25', recovered 23' being 12' sd: gry to tan, vy F, vy limey, sli micaceous, vy hard, vy tight poro, no stain, vy lt sctd fluor, no cut, lt odor. 1' sd: A.A. w/thin sh stks, vy tight, no stain, fluor, cut not tested, lt odor. 4' blk sh: NS. 1' sh: blk, w/a few thin stks of vy shly Ls, NS. 2' sh: blk w/sctd sd stks, NS. 2' sd: gry to tan, vy F, vy lmy w/sctd frag of sh, NS. 1' sd: gry, vy lmy, vy small lime frag, vy hard, no poro, no stain, fair sptd fluor, no cut, lt odor.
NOTE: Entire core has one near vert frac w/no fill.
DIP: Fair 45° dip @ 9193' in shale bedding planes, but shale has fragmental inclusions. Fair 55° dip @ 9198 - A.A. Fair 20° dip @ 9202 - A.A.

Diamond Core #30 (9206-9208). Cut 2', recovered 1 $\frac{1}{2}$ ' being 1 $\frac{1}{2}$ ' dolo: F xyl, gry blk, dense w/multiple tight broken fractures, NS.
NOTE: This core was badly broken up with a portion of the breaks along the fractures.
DIP: No dip apparent.

Diamond Core #31 (9211-9216). Cut 5', recovered 5' being 5' sh: blk, w/two small quartzitic sd lam @ 9213' & sctd quartzitic sd frag in bottom 2' w/a few vy thin Ls stks intergraded in sh. One vert frac extending entire length of core w/ small multiple frac in bottom 2', NS.
DIP: Fair 24° dip 9211-16 in sh bedding plane.

DST #12 (9391-9517). Open 4 hours, strong blow of air diminishing after 10 minutes, gas to surface in 40 minutes, stabilized gas flow 15 MCF/day. Circulated out through sub 367' above packer, circulated volume to displace D.P. 139 bbls., circulated out 2300' gas cut mud, slight rainbow of oil, 6000 PPM chloride, gas content 140/40 (Normal 20/6) and 40/10. Rec: 270' gcm / 97' g & distillate cm.
FP 280#-310# 30 Min. SIP 1300#

DST #13 (9554-9649). Open 3 hours 50 minutes, opened w/very strong blow, very slight decrease for 2 hours, weak blow remainder of test. Rec: 70' very sli water & gcm (2,300 PPM chlor. & 110/1 gas).
FP 60-60# 30 Min. SIP 60#

DST #14 (9884-9954). Open 2 hours, fair blow of air, slow steady decrease, vy weak blow at end test. Rec: 60' uncut drlg. mud.
FP 20-20# 30 Min. SIP 20#

Diamond Core #32 (9998-10,024). Cut 26', recovered 26' being 4' sd: gry, V F, sli calc, vy silty, vy tight, no stain, lt solid fluor, fair cut, fair odor. 3' sd: gry to tan, vy F, sli calc & argil, vy tight, no stain, lt solid fluor, lt cut, lt odor. 7' sd: gry, V F, sli calc, vy silty, sli argil w/few scd sh frag in top 2' & 1' of vy thinly lam sd & sh @ 3' from bottom, vy tight, no stain, lt solid fluor, trace cut, lt odor. 6' sd: gry, V F, sli calc, vy silty, w/vy small scd sh frag inc. in num. @ bottom w/a vy thinly lam zone @ 10,012-13 & 10,014-15 & 4" blk sh strk @ 10,016, vy tight, no stain, lt solid fluor, lt cut, lt odor. 6' sd & sh: vy thinly lam, w/a vy shly sd from 10,020-22, & 4" blk sh strk @ 10,020, vy tight, no stain, trace of lt fluor in shaley sd trace of cut in shaley sd, trace of odor.

DIP: Fair to good 3-5° dip 10,012-18 in shale & sand laminations.

DST #15 (9952-10,024). Open 2 hours 30 minutes, very strong blow of air, gradually decreased lt blow end of 15 minutes, continued to end of test. Rec: 90' very sli gas & dist. cm.

FP 60-60#

15 min SIP 60#

Diamond Core #33 (10,024-10,048). Cut 24', recovered 24' being 3' sd & sh: vy thinly lam, NS, trace odor. 1' sd & sh: homogeneously mixed, vy hard, NS. 1' sd & sh: vy thinly lam, NS, trace odor. 2' sd & sh: homogeneously mixed, vy hard, NS. 3' sd & sh: vy thinly lam, NS, trace odor. 4' sh: blk, NS. 1' li: blk, vy F-xlyn, vy dense, sli shaley, NS. 9' sh: blk, limey, w/few scd vy thin strks of lime, NS.

DIP: Good 2-3° dip 10,024-48 in shale & sd laminations.

Diamond Core #34 (10,063-10,073). Cut 10', recovered 10' being 1' li: tan-brn, V F xlyn, sdy, vy dense, no stain, fluor, cut not tested, lt odor. 3' li: brn-blk, crsly xlyn, w/num fossils w/blk sh strks scd throughout, vy dense, NS. 6' sh: blk, vy lmy w/scd strks of li A.A.

DIP: No dip apparent.

Diamond Core #35 (12,330-12,343). Cut 13', recovered 13' being 3' sh: blk, NS. 1' li: dk brn to blk, M-G xlyn, vy dense, NS. 3' sh: blk, NS. 2' sh: blk w/scd small Ls frag & fossil, replacements in congl. app., NS. 2' li & sh: conglomerate & fossiliferous, lt odor, NS. 2' sh: blk w/bottom 1" being vy dense Ls w/vy thin strk of chert, NS.

Note: Entire core (with exception of 12,333-34) contained vy minute near vert. multiple fractures, completely filled w/about 1/100" of calcite.

DIP: Fair to poor 3° dip in shale bedding planes, congl. appearance.

Diamond Core #36 (12,367-12,390). Cut 23', recovered 23' being 4' lime: dk brn, den, sub xlyn to coarsely xlyn, trace vert frac-fusulinids-Spicules, fossiliferous, vy tight poro, no stain, no fluor, no cut, vy lt sweet odor. 1' lime: dk brn, vy den, coarsely xlyn to xlyn, vy sili. to cherty-trace secondary xlyzation, vy fossiliferous w/multiple frac, vy lt sweet odor. 3' sh: blk, pokerchip, vy tight, NS, vy lt sweet odor. 1' lime: brn, dense, finely xlyn, silicious to cherty, vy fossiliferous w/multiple frac, vy tight poro, no show, vy lt sweet odor. 4' sh: blk w/calc filled vert frac, V. L. sweet odor, no show. 1' lime: brn, finely xlyn to coarse xlyn, fractured calc filled-vy fossiliferous, vy tight poro, no show, V. L. sweet odor. 7' sh: blk, frac in all directions, calc filled to vy tight unfilled, w/thin lenticules of brn, xlyn, dense, fossiliferous lime, vy tight poro, no stain, no fluor, V. L. sweet odor. 2' sh: blk w/zones of vy limey fossiliferous concentration, sli fractured, no show, V. L. sweet odor.

DIP: Fair 10° dip 12,367-90 in shale bedding planes.

Note: This core was bleeding gas from the entire section, both from the shale & lime. Gas pressure had built up in the core bbl. & was released when the core was removed. There is good evidence of fracturing, both with & without calcite cementation. The fractures were very small however.

DIP: Average dip in shale was 10°.

DST #16 (12,215-12,365). Used 2000' wb, open 2 hours 49 minutes, good strong blow of air, 5/8" surface choke. Water blanket to surface in 25 minutes, mud in 52 minutes, gas & distillate in 60 minutes, flc. to pits to clean up for 6 minutes. Turned to tanks & flowed 8.28 barrels distillate / 87.9 MCFG in 1 hour, GOR 10,616 to 1. Recovery = pulled 26 stands drill pipe unloading gas w/spray of distillate, broke circ. sub., reversed out uncut drlg. mud for 27 minutes & gas & distillate cut mud for 8 minutes & recovered below circu. sub 618' heavily gas & distillate cut mud, no water present, gravity of distillate 55.2° API.

FP 1549-900#

18 Min. SIP 6940#

Diamond Core #37 (12,390-12,415). Cut 25', recovered 25' being 1/2' lime: brn, den, sub xlyn, vy fossiliferous w/vy numerous secondary calcite xtls, vy tight, no show, vy lt sweet odor. 3 1/2' sh: blk, splintery, sli multiple frac in bottom foot, no show, vy lt sweet odor. 3' lime: brn, vy dense, hard, subxlyn, silicious to brn, xlyn-vy foss. A.A. 9' conglomerate: blk sh matrix & lime cobbles, NS.

1. The first part of the document, covering the period from 1945 to 1947, describes the initial stages of the project. It details the establishment of the project office, the recruitment of personnel, and the early research efforts. The document also mentions the initial funding and the support provided by the government.

2. The second part of the document, covering the period from 1948 to 1950, describes the progress of the project. It details the completion of the initial research, the development of the project plan, and the implementation of the project. The document also mentions the progress of the project and the results of the research.

3. The third part of the document, covering the period from 1951 to 1953, describes the progress of the project. It details the completion of the initial research, the development of the project plan, and the implementation of the project. The document also mentions the progress of the project and the results of the research.

4. The fourth part of the document, covering the period from 1954 to 1956, describes the progress of the project. It details the completion of the initial research, the development of the project plan, and the implementation of the project. The document also mentions the progress of the project and the results of the research.

5. The fifth part of the document, covering the period from 1957 to 1959, describes the progress of the project. It details the completion of the initial research, the development of the project plan, and the implementation of the project. The document also mentions the progress of the project and the results of the research.

6. The sixth part of the document, covering the period from 1960 to 1962, describes the progress of the project. It details the completion of the initial research, the development of the project plan, and the implementation of the project. The document also mentions the progress of the project and the results of the research.

7. The seventh part of the document, covering the period from 1963 to 1965, describes the progress of the project. It details the completion of the initial research, the development of the project plan, and the implementation of the project. The document also mentions the progress of the project and the results of the research.

8. The eighth part of the document, covering the period from 1966 to 1968, describes the progress of the project. It details the completion of the initial research, the development of the project plan, and the implementation of the project. The document also mentions the progress of the project and the results of the research.

3' sh: blk, splintery, no show. 6' conglomerate: blk sh matrix w/lime cobbles, vy fossiliferous, vy tight, no stain, no fluor, no cut, vy lt sweet odor.

Note: The entire core was bleeding sweet gas.

DIP: Fair 8° dip 12,406-09 in shale bedding planes.

DST #17 (12,362-12,415). Used 2000' wb, open 1 hour. Fair blow of air, decreased steadily, died in 33 minutes. Remained dead for 17 minutes, then commenced lt. bubble of air to end of test. Recovered 578' uncut wb / 1412' sli gc wb (some free gas present) / 10' sli gc & mud cut wb / 112' sli gcm.

FP 1100-1100#

15 Min. SIP 1100#

Diamond Core #38 (12,419-12,449). Cut 30', recovered 30' being 17' congl: brnsh blk, den, conchoidal frac shale w/numerous vy large to small lime cobbles, vy fossiliferous, vy tight poro, no stain, no fluor, no cut, vy lt sweet odor.

1' sh: blk, vy tight, vy lt sweet odor. 1' sh & li: conglomerate as first 17', vy tight, vy lt sweet to sli sour odor. 1' lime: brn, xlyn, den, vy shaley, vy fossil, vy tight, sweet to sour odor. 4' congl: as first 17', vy tight, sweet to sour odor. 1' blk shale: vy tight, sweet to sour odor. 4' sh & li conglomerate, vy tight, sweet to sour odor. 1' sh: blk, vy tight, sweet to sour odor.

Note: Bleeding sweet gas very lightly throughout core with sour odor starting at 12,437'.

DIP: No dip apparent.

Diamond Core #39 (12,520-12,569). Cut 49', recovered 49' being 1' lime: brn, den, med xlyn, w/thin vert frac, calc filled, vy tight, no show, no odor. 1' shale: blk, poker chip, not calc, NS. 1' lime: brnsh blk, vy den, massive to sub xlyn, conchoidal frac, no show. 6' shale: blk, no show. 1½' lime: brn-den subxlyn to fossiliferous, NS. 5' shale: blk, no show. ½' sd: gry brn, V F quartzitic, calc- vy hard, tight, silicious, no show. 24' shale: blk w/occasional thin quartzitic sand stringers, no show. 2½' lime: vy shaley, brn to blk, den, subxlyn; change with depth to brn, F xlyn, vy den, hard sili. vert frac 60-64 calc filled (fly spray odor from frac). 1½' lime: brn, den, subxlyn, fossiliferous, NS. 1' sh: blk w/vy foss lime strks, NS. 4' shale: blk, no show.

Note: Several thick calc filled, hor. bedding plane partings.

DIP: Good 1½° dip 12,536-60 in shale & sand stringers.

DST #18 (12,627-12,678). Used 2500' wb. Open 1 hour, weak bubble of air & died in 35 minutes. Recovered 1780' uncut wb / 720' gc wb (free gas-immediate breakout of water blanket) / 90' sli gc drlg. mud.

FP 1175-1175#

20 Min. SIP 1260#

Diamond Core #40 (12,745-12,795). Cut 50' recovered 50' being 48½' shale: vy dk gray to blk, vy sli silty, NS. 1½' shale: A.A. w/thin streak of brn, F xlyn li & dk gray, vy sili. sli dolo w/shale conchoidal fracture, no show.

DIP: Average dip of shale 12°.

Diamond Core #41 (12,984-13,034). Cut 50', recovered 50' being 25½' shale: blk, splintery w/sctd traces of brn siliceous lime, no poro, stain, fluor, cut, nor odor. 4' limestone: brn, xlyn, dense, vy fossiliferous, sctd good vugs filled w/shale, no stain, no fluor, no cut, sulphur odor. ½' limestone: brn, V F, xlyn to gran vy hard, den, & sli siliceous, no show. 9' conglomerate: blk shale matrix w/tan lime cobbles & crinoids, no show, sulphur odor. 1' shale: blk, no show. 10' conglomerate: A.A., sulphur odor.

Note: Vertical vy tight fracture in top 6" of core.

DIP: 3° in shale bedding planes from 12,984-13,009 and a spurious high angle dip was observed in the 6" immediately above the congl. (13,013½-14).

DST #19 (12,951-13,135). Used 3600' wb, open 30 minutes, weak blow air, dead at end of 26 minutes. Recovered 546' uncut wb / 3054' sli gc wb / 120' sli gc drlg. mud.

FP 1740-1770#

15 Min. SIP 2270#

Diamond Core #42 (13,688-13,738). Cut 50', recovered 50' being 3' shale: blk, limey. 5' lime: dk gry to blk, F-xlyn, dense vy shaley & sdy (large clear quartz) & vy glauconitic & micaceous. 5' lime: A.A. only sub-xlyn to massive & only a trace of glauc. 14' shale: blk, vy limey w/vy thin occasional lime streaks A.A. & pyrite streaks. 2' lime: dk brn, F-xlyn, vy dense & sli sil, vy glauconitic, w/sh streaks. 8' lime: lt tan, F-xlyn, vy sdy (clear quartz grains) vy glauconitic & sil w/occasional thin micaceous sh strks. 1' lime: tan to brn, F-M xlyn, vy glauconitic, sli sil. 8' lime: A.A. only vy shaley w/a few sctd shale strks. 3' lime: tan to brn, c-xlyn, mottled vy fossiliferous & dense, w/numerous fusulinids.

Note: Very tight vertical fracture from 13688-89, 13719-21, 13724-29 & 13733-34. Fracture from 13724-29 also had 45° frac (V-Shaped). All fractures were very tight w/occasional vy thin clac fill.

No poro, no stain, no fluor, cut not tested, no odor in above core 13,688-13,738.

DIP: Fair to poor 3° dip from 13699-13715 in lime partings & shale bedding planes.

The first part of the document is a letter from the author to the editor of the journal. The letter is dated 1964 and is addressed to the editor of the journal. The letter is written in a formal and polite tone. The author expresses his appreciation for the editor's work and his interest in the journal. He also mentions that he has received the journal and is looking forward to reading it.

The second part of the document is a letter from the editor to the author. The letter is dated 1964 and is addressed to the author. The letter is written in a formal and polite tone. The editor expresses his appreciation for the author's letter and his interest in the journal. He also mentions that he has received the journal and is looking forward to reading it.

The third part of the document is a letter from the author to the editor of the journal. The letter is dated 1964 and is addressed to the editor of the journal. The letter is written in a formal and polite tone. The author expresses his appreciation for the editor's work and his interest in the journal. He also mentions that he has received the journal and is looking forward to reading it.

The fourth part of the document is a letter from the editor to the author. The letter is dated 1964 and is addressed to the author. The letter is written in a formal and polite tone. The editor expresses his appreciation for the author's letter and his interest in the journal. He also mentions that he has received the journal and is looking forward to reading it.

The fifth part of the document is a letter from the author to the editor of the journal. The letter is dated 1964 and is addressed to the editor of the journal. The letter is written in a formal and polite tone. The author expresses his appreciation for the editor's work and his interest in the journal. He also mentions that he has received the journal and is looking forward to reading it.

The sixth part of the document is a letter from the editor to the author. The letter is dated 1964 and is addressed to the author. The letter is written in a formal and polite tone. The editor expresses his appreciation for the author's letter and his interest in the journal. He also mentions that he has received the journal and is looking forward to reading it.

The seventh part of the document is a letter from the author to the editor of the journal. The letter is dated 1964 and is addressed to the editor of the journal. The letter is written in a formal and polite tone. The author expresses his appreciation for the editor's work and his interest in the journal. He also mentions that he has received the journal and is looking forward to reading it.

The eighth part of the document is a letter from the editor to the author. The letter is dated 1964 and is addressed to the author. The letter is written in a formal and polite tone. The editor expresses his appreciation for the author's letter and his interest in the journal. He also mentions that he has received the journal and is looking forward to reading it.

The ninth part of the document is a letter from the author to the editor of the journal. The letter is dated 1964 and is addressed to the editor of the journal. The letter is written in a formal and polite tone. The author expresses his appreciation for the editor's work and his interest in the journal. He also mentions that he has received the journal and is looking forward to reading it.

Diamond Core #43 (14,000-14,028). Cut 28', recovered 28' being 10' lime: brn, subxlyn, massive, vy dense, hard, brittle w/multiple frac, no show. 2' shale: blk, splintery, sli fossiliferous, NS. 8' lime: A.A. vy dense & tight. 7' shale: blk, den, hard, limey to pyritic to splintery, no show. 1' lime: brn, den, subxlyn to massive, vy hard, w/sh lam, vy tight, NS.
DIP: Very poor indication of 7° dip in shale.

DST #20 (14,328-14,467). Used 3060' wb, open 46 minutes, very lt blow of air 20 minutes and died, no gas or fluid to surface. Recovered 3060' uncut wb / 45' sli gas cut mud, chloride content 1500 PPM.
FP 1420-1420# 15 Min. SIP 1860#

Diamond Core #44 (14,578-14,628). Cut 50', recovered 50' being 4' shale: blk, micaeous, splintery. 4' lime: vy dense, massive, silic, dk brn to blk, pyr, dolomitic, w/conch frac. 1' shale: A.A. 1' lime: A.A. 2' shale: dense, blk calc. 1' shale: A.A., fractured w/calcite fill, evidence of slickensides. 5½' shale: blk, dense, calc, w/4" streak of lime A.A. 10½' lime: dk brn, vy dense, F-M xlyn, sil w/tr glauc to brn, dense, subxlyn, w/scld ctz inclusions. 5½' sand: lt gray, vy fine grn, vy glauc, vy dense, & tight, calc to quartzitic. 15½' lime: brn, vy dense, mass, to subxlyn, w/num vy thin shale partings to very shaley lime.
No poro, stain, fluor, cut or odor in above core.
DIP: Fair indication of 8° dip in shale bedding plane @ 14,578-82 & 14,628.

Diamond Core #45 (14,736-14,786). Cut 50', recovered 50' being 8' sand: white, crystal angular quartz w/siliceous & anhydrite cement material, NS. 2' shale: dk gry, sdy, glauconitic, NS. 2' lime: dk gry to blk, Fx, sli shaley, NS. 38' sh: dk gry & blk, vy limey, pyritic w/20% being shaley, Fx dense lime, NS, no poro, stain, fluor, cut or odor. Vert. frac, tight, not recemented in top 10'.
DIP: Poor 4° dip in shale bedding planes only.

Diamond Core #46 (16,090-16,121). Cut 31', recovered 31' being 31' shale: blk, vy dense, conchoidal fracture pattern, vy calc to limey, sli foss, no poro, stain, fluor, cut or odor.
DIP: No apparent dip.

Diamond Core #47 (16,470-16,473). Cut 3', recovered 3' being 3' lime: dk brn, vy dense, subxlyn, shaley w/numerous hair line vert frac, no show.
DIP: No dip.

Diamond Core #48 (16,551-16,562). Cut 11', recovered 11' being 11' shale: blk med hard, pyritic w/some scld vy fine micaeous, no poro, no stain, no fluor, no cut or odor.
DIP: No apparent dip.

DST #21. Test perforations at 12,360'. Hookwall packer set @ 12,302', used 7000' wb, tool open 10 minutes, immediate vy strong blow air throughout test. Reversed out 7000' uncut wb / 10' H gc drlg. mud.
FP 4525-4525# 10 Min. SIP 5100#

Diamond Core #49 (16,636-16,651). Cut 15', recovered 15' being 15' lime: den, gry to tan, semi-collitic, vy highly frac-vert & horiz.-vy brittle lime, trace calc filled frac, no poro, stain, fluor, cut or odor.
DIP: No dip.

Diamond Core #50 (16,653-16,678). Cut 25', recovered 25' being 25' lime: gry to tan, suc to massive, soft highly fractured or broken w/frag ranging from paper thin to ¼", being filled w/calc & shale material, vy dense, no stain, no fluor, cut not tested, no odor.
DIP: No noticeable dip.
Core was very crumbly and broken when pulled from inner barrel.

Diamond Core #51 (16,680-16,705). Cut 25', recovered 25' being 8' lime: gry to tan, suc to massive, vy highly frac, filled w/calc, vy dense, no stain, no fluor, cut not tested, no odor. 17' dolomite: cream to white, MX-CX, w/excellent sec curved dolo xls, a few scld quartz xls & dk sec dolo fill, multiple tight closed vert frac. Some of the sec dolo xls had a very thin film of a blk vitreous luster material deposited over them. Excellent vug to cavernous poro, no stain, no fluor, cut not tested, sulphur odor.
Note: No apparent dip.

DST #22 (16,626-16,705). Used 8200' wb, open 3 minutes, immediate lt blow air, increasing, packer failed after 3 minutes. Attempt to reopen tool 2 additional times, fluid in annulus fall both times. No recovery - attempted to break circulating sub - failed but caused T.C. valve to leak when pressure was applied to D.P.
FBHP initial 4300# -Final 4300#

DST #23 (16,600-16,705). Used 8200' wb, open 3 hours, tool opened w/good blow air. Increase to strong blow immediately, sli decrease throughout test. No gas to surface. Recovered 12,788' total fluid, being 7850' wb, / 3398' black salty sulfur water w/sour odor, / 350' mud cut wb, / 920' mud cut salt water (sulfur odor & taste 24500 PPM chlor.) / 270' mud cut salt water (83000 PPM chlor.).
 FP 4120-5920# 30 Min. SIP 7390#.

The total depth of 16,705' was reached in 455 days. Casing record as follows:
 20" @ 539' w/750 sacks cement, 13 3/8" @ 3954' w/6450 sacks cement, 9 5/8" @ 10,058' w/2540 sacks cement, 7" Liner 9850-16,626 w/1150 sacks cement. Perforated 7" Liner at 10,025', 11,930' and 12,360' and squeezed with 825 sacks cement, total of 1975 sacks cement behind 7" Liner. Plugged and abandoned September 20, 1954.

Page 1 of 1

1. The first part of the document is a letter from the President of the United States to the Congress, dated January 1, 1863. It is a very important document, as it contains the President's message to Congress, which is a key part of the executive branch's communication with the legislative branch. The letter is written in a formal, official style, and it is signed by the President.

2. The second part of the document is a letter from the Secretary of the Treasury to the President, dated January 1, 1863. It is a very important document, as it contains the Secretary's report to the President, which is a key part of the executive branch's communication with the President. The letter is written in a formal, official style, and it is signed by the Secretary.