

Multiple Choice & Short Answer

No penalty for guessing. Pick the best answer. The Texas oil and gas lease form we used in class and referenced in many of the questions is attached.

Multiple choice and short answer – one point each

1. An oil and gas lease form like we reviewed in class (on page 414 of the Nutshell):

- A. Is usually considered to be ambiguous by a court when a mineral owner challenges a provision
- B. Is treated as real property, so the 'statute of frauds' generally applies
- C. Is usually considered to be personal property
- D. Is not considered to be a contract by most courts
- E. Have provisions that usually are identical regardless of the state they are utilized in
- F. None of the above

2. A mineral deed conveying oil and gas rights:

- A. Is usually considered to be ambiguous by a court when a mineral owner challenges a provision
- B. Is treated as real property, so the 'statute of frauds' generally applies
- C. Is usually considered to be personal property
- D. Is not considered to be a contract by most courts
- E. Can be made by oral agreement
- F. None of the above

3. In an oil and gas lease the 'words of grant' in the document conveying the leasehold interest are generally as follows:

- A. 'Minerals in, on, and under'
- B. 'Oil & gas and other minerals in, on, and under'
- C. 'Hereby lease and let'
- D. 'Royalties produced and saved'
- E. None of the above

4. For conveyances real property, the 'recording statutes':

- A. Provide notice to third parties of claims to a real property interest
- B. Provide a method for the court to determine ownership in the case of multiple grants
- C. Require a notary public on the document in order to be filed in the real estate records
- D. All of the above
- E. None of the above

5. If an oil and gas lease is for five years and as long as oil and gas is produced, and is dated and signed on May 2, 2013, when will it expire assuming no production or drilling activity?

- A. On May 1, 2018 at midnight
- B. On May 2, 2018 at midnight
- C. On May 3, 2018 at midnight
- D. Some other date
- E. It depends on the facts surrounding the execution of the lease

6. If an oil and gas lease is for five years and as long as oil and gas is produced, and is dated and signed on May 2, 2013, what is the five year period called?

- A. The tertiary term
- B. The secondary term
- C. The primary term
- D. The term of art
- E. The incorporeal hereditament
- F. The corporeal hereditament
- G. None of the above

7. If an oil and gas lease is for five years and as long as oil and gas is produced, and is dated and signed on May 2, 2013, what is period subsequent to the five year period called (assuming a productive well had been drilled in that period)?

- A. The tertiary term
- B. The secondary term
- C. The primary term
- D. The term of art
- E. The incorporeal hereditament
- F. The corporeal hereditament
- G. None of the above

8. Before a well is drilled a party generally checks title. Their report is called:

- A. A division order title opinion
- B. A title run sheet
- C. A drilling title opinion
- D. A division order
- E. An AFE
- F. None of the above

9. After a well is drilled and completed as a producer a party generally checks title and determines the exact interest of everyone in the well. Their report is called:

- A. A division order title opinion
- B. A title run sheet
- C. A drilling title opinion
- D. A divided order
- E. An AFE
- F. None of the above

10. After a well is drilled and completed as a producer a party generally checks title and determines the exact interest of everyone in the well. Their report also generally suggests that certain curative actions be taken with regard to title.

These suggestions are called:

- A. Title opinions
- B. Title options
- C. Title requirements
- D. Title performance
- E. None of the above

11. When a party checks title prior to the drilling of a well by going to the courthouse and pulling the title records it is generally called:

- A. A sit down title opinion
- B. A required title opinion
- C. An official title opinion
- D. A stand up title opinion
- E. A certified title opinion

12. A document filed in the country courthouse real estate records is entitled "Oil & Gas Lease". Which of the following is true?

- A. The title always controls what is granted
- B. In some cases the words of grant may create an ambiguity as to what is granted
- C. The words of grant always control what is granted, the title is not important
- D. None of the above

13. A lessee would like an oil and gas lease to be considered non-ambiguous because:

- A. If a lease is ambiguous oral testimony as to intent is generally not allowed
- B. If a lease is ambiguous it cannot be filed of record in the county courthouse
- C. If a lease is ambiguous oral testimony as to intent can be allowed
- D. If a lease is ambiguous intent of the parties will no longer be an issue
- E. None of the above

14. A landman buys a mineral owner a round of drinks before getting them to sign an oil and gas lease.

- A. The sobriety of a party is never a question when reviewing the capacity to lease
- B. As long as illegal drugs were not involved the lease is valid regardless of sobriety
- C. If the party can walk to the door without stumbling they have the capacity to lease
- D. Only court certified alcoholics lack capacity to lease
- E. None of the above

15. Oil and gas leases in an area are selling for \$15,000 per acre with a  $1/8^{\text{th}}$  royalty. A landman offers, by letter, to lease an out-of-state owner's interest for \$1,000 an acre with a  $1/8^{\text{th}}$  royalty. The out-of-state owner accepts the offer by return letter.

- A. The transaction can be cancelled by the mineral owner within 30 days by statute
- B. Lack of knowledge about a property's market value will generally not void a lease
- C. A duty of 'play fair' is always involved when leasing mineral owner's rights
- D. Unless approved by the Railroad Commission the lease is voidable
- E. None of the above

16. A husband and wife live on a ranch in West Texas. They own the minerals under their principle residence. The husband's name is the only one on the deed under which he acquired ownership of the ranch.

- A. To lease the property a lessee only needs the husband's signature
- B. To lease the property a lessee can get the wife to sign, which will also bind the husband
- C. To lease the property both the husband and wife must sign the lease
- D. The answer will depend on how long the parties have been married
- E. A court will be required to review the title before drilling
- F. None of the above

17. Oil and gas leases in an area are selling for \$15,000 per acre with a  $1/8^{\text{th}}$  royalty. A landman offers, by letter, to lease an out-of-state owner's interest for \$1 an acre with a  $1/8^{\text{th}}$  royalty. The out-of-state owner accepts the offer by return letter.

- A. The transaction can be cancelled by the mineral owner within 30 days by statute
- B. A duty of 'reasonability' is always involved when leasing mineral owner's rights
- C. Absent fraud, the smallest consideration will support a contract such as an oil and gas lease
- D. Unless approved by the Railroad Commission the lease is voidable
- E. None of the above

18. A 'royalty' interest is a:

- A. A cost free interest through the well bore
- B. A risk free interest
- C. An interest that does not make the drilling or production decisions
- D. Does not bear the cost of drilling and completing a well
- E. All of the above

19. A twelve year old executes an oil and gas lease to Smith

- A. If acquired by a good faith third party for value the lease is valid
- B. Oil and gas leases from minors are always null and void
- C. You can tell from the face of the oil and gas lease that a party is under the age of majority
- D. Oil and gas leases signed by minors are usually voidable by the minor
- E. None of the above

20. An oil and gas lease is taken by Smith covering minerals under lands located in Tarrant County, Texas. The lease was actually signed by the mineral owner in Dallas County, Texas.

- A. The oil and gas lease can be recorded in any county in the state
- B. To put third parties on notice of the lease, Smith needs to file the lease in Tarrant County
- C. To put third parties on notice of the lease, Smith can file the lease in either Tarrant or Dallas Counties
- D. A lease needs to be recorded before it becomes effective between the parties
- E. None of the above

21. Smith offers to lease mineral interests owned by Jones

- A. An offer to lease by statute only lasts for 10 days
- B. The offer does not need to be in writing
- C. Smith can withdraw his offer any time before acceptance
- D. The offer does not need to contain the material terms
- E. The offer is subject to Railroad Commission approval
- F. None of the above

22, 23, 24, & 25. A standard form oil and gas lease has at least four types of potential consideration. Name them:

- A. \_\_\_\_\_
- B. \_\_\_\_\_
- C. \_\_\_\_\_
- D. \_\_\_\_\_

26. Smith offers to lease mineral interests owned by Jones. Smith gives Jones a standard form oil and gas lease that has the material terms of the offer included. Jones adds an addendum to the lease requiring substantial payment for use of the surface and returns the lease to Smith saying 'I accept'.

- A. The oil and gas lease will be binding and enforceable between the parties
- B. The oil and gas lease will be subject to claims by third party purchasers for value
- C. Smith's communication would be considered a counteroffer and no contract is formed
- D. If deemed reasonable by a court, Jones' addendum would be enforceable
- E. The question of whether a contract was formed will turn on the intent of the parties

27. Smith offers to lease the mineral interests owned by Jones. He will pay a total of \$150,000 bonus for the oil and gas lease.

- A. In order for the lease to be valid, the lease must indicate that \$150,000 was paid by Smith
- B. Few lessees insert the total amount of bonus paid for a lease on the face of the lease
- C. An oil or gas lease is supported even if no consideration is paid
- D. Many mineral owners use aliases when leasing to avoid identity theft
- E. None of the above

28. In a standard oil and gas lease form like we used in class what is considered conveyed or subject to the lease?
- A. Gold
  - B. Copper
  - C. Gypsum
  - D. Casinghead gas
  - E. Salt water
  - F. Uranium
  - G. None of the above
29. With regard to 'post production' costs, which of the following costs might the lessee legitimately deduct from the royalty owner's check?
- A. Compression costs
  - B. Cost of an amine unit to remove hydrogen sulfide
  - C. Cost of a dehydrator to remove water vapor
  - D. Cost of a gathering system to move natural gas off the lease to a transportation pipeline
  - E. All of the above
30. Under the 'four corners' rule:
- A. Parties who deliberately stall or delay a transaction will be penalized under this rule
  - B. Any contract not covering all four corners will not be considered 'square' by the court
  - C. The 'four corners' is actually shorthand for the four material terms of a given contract
  - D. A court will attempt to interpret the intent from the express language of the contract
  - E. None of the above
31. If a party forgets to include the legal description of the lands being leased on the face of the oil and gas lease:
- A. The lease will be valid and the description determined by oral testimony if necessary
  - B. The lease can be amended by the lessee who can fill in the correct description of the subject lands after the lease has been filed of record in the county courthouse
  - C. The oil and gas lease will not be valid since it is missing a material term
  - D. The validity of the oil and gas lease will depend on the intent of the parties
  - E. None of the above
32. If a party makes a mistake in filling out the oil and gas lease form, and mistypes "Section 29" when they meant to convey "Section 27", the oil and gas lease:
- A. Is invalid since the lease is missing a material term
  - B. Is valid between the parties due to the mutual mistake
  - C. Is valid against a third party good faith purchaser for value that has no knowledge of the mistake
  - D. Is subject to much consternation, with the intent determined by a judge
  - E. Is subject to EPA approval if properly endorsed

33. The 'pooling' clause in an oil and gas lease:

- A. Provides that royalties can be pooled and distributed as appropriate
- B. Allows a party to force mineral owners to participate in the cost of drilling a well
- C. Allows a lessee to combine leases on which a unit well can be drilled
- D. Allows a party to force mineral owners to lease on pre-arranged terms
- E. Is subject to Railroad Commission approval

34. An oil and gas lease does not need to be in writing, true or false? (best answer)

- A. True, depending on the intent of the parties
- B. True, depending on the state where the minerals are located
- C. False, all oil and gas leases must be in writing
- D. False, but the enforceability depends on the intent of the parties
- E. None of the above

35. The bonus for an oil and gas lease is generally paid for by a:

- A. Certified cashier's check
- B. Corporate check
- C. Draft
- D. IOU
- E. Subordinated Note
- F. Wheelbarrow full of cash

36 & 37. A lessee can refuse to pay the agreed-to bonus after the lessor/mineral owner has returned the lease to the lessee's bank for payment. Name two legitimate and legally acceptable reasons why a lessee might not be liable for failure to pay such bonus monies:

- A. \_\_\_\_\_
- B. \_\_\_\_\_
- C. Extra credit: \_\_\_\_\_

38 & 39. The term "produced" as set out in the term or habendum clause of the lease has two definitions or meanings according to the courts. What are they?

- A. 'Produced' means \_\_\_\_\_
- B. And also \_\_\_\_\_

40. When a lessee drills a well that is productive and pays royalties, what costs are never deducted from royalty payments:

- A. Cost of compression
- B. Cost of transportation to market
- C. Cost of drilling the well
- D. Cost of removing water vapor
- E. None of the above

41. If a natural gas well is drilled on a lease and the natural gas cannot be marketed because a pipeline has not been constructed to the well:

- A. The well can be held into the secondary term by flaring it periodically
- B. An advance royalty payment can be made to maintain the lease into the secondary term
- C. Additional bonus monies can be paid to maintain the lease into the secondary term
- D. A shut in royalty payment can be made to maintain the lease into the secondary term
- E. None of the above

42. If a well is drilled on an oil and gas lease and the well extends the lease into the secondary or 'held by production' term, if that well should stop producing due to depletion which of the following is true:

- A. The lease will immediately expire since there is no production
- B. If the lease does not have a 'cessation of production' clause the lessee will have a reasonable time to restore production before the lease expires
- C. A lessee has 45 days by statute to restore production before the lease expires
- D. The lessee can pay a shut in royalty payment to maintain the lease
- E. None of the above

43. 'Cold drafting' refers to which of the following:

- A. Oil field slang for the signing of a lease in North Dakota in January
- B. Oil field slang for the tapping of a half-barrel of beer at a local fraternity or sorority party
- C. Oil field slang for the non-payment of a bonus owed by a lessee
- D. A method to enhance production from a natural gas well
- E. None of the above

44. If a well is drilled on an oil and gas lease and the well extends the lease into the secondary or 'held by production' term, if that well should stop producing due to depletion which of the following is true assuming the lease form was identical to the one we examined in class?

- A. The lessee has 30 days to resume drilling or reworking activities
- B. The lessee has 45 days to resume drilling or reworking activities
- C. The lessee had 60 days to resume drilling or reworking activities
- D. The lessee has a reasonable time to resume drilling or reworking activities
- E. More than one of the above

45. The 'Mother Hubbard' clause contained in an oil and gas lease

- A. Is unique to Oklahoma and is rarely seen in a Texas lease
- B. Is unique to Kansas and is rarely seen in a lease elsewhere
- C. Is unique to Texas and usually includes small parcels of lands that may be owned by the mineral owner adjacent to the lands described in the description clause
- D. Deals with the quality, as opposed to the quantity, of the mineral owner's interest
- E. None of the above



46. The “Pugh” clause or “Freestone rider” that some mineral owners add to a lease:
- A. Limits the term of the lease to an agreed to period of time
  - B. Limits the depth to which a lessee can drill without paying additional royalties
  - C. Limits the rights that can be retained by the lessee if a lease is extended into the secondary term
  - D. Limits the amount of shut in royalties that can be paid to maintain a lease
  - E. None of the above
47. The ‘pooling’ clause in an oil and gas lease:
- A. Is extremely important in Texas, but not so much in Oklahoma
  - B. Is not important in Texas, but is very important in Oklahoma
  - C. Allows a lessee to pool potential environmental liabilities incurred in the drilling of a well
  - D. Allows a lessee to pool drilling costs across all depths and horizons
  - E. None of the above
48. The oil and gas lease that we reviewed in class requires the lessee to bury any pipelines ‘below ordinary plow depth’.
- A. Plow depth is defined as 24 inches below the surface
  - B. Plow depth is defined as 12 inches below the surface
  - C. Plow depth is set by USDA regulation as 6 inches below the surface
  - D. Plow depth is not defined by the lease or by regulation
  - E. None of the above
49. In April, 2013 the Financial Times reported that a large number of additional lawsuits were filed that month against BP for alleged damages from the blowout of a well they operated that occurred three years ago in the Gulf of Mexico.
- A. The lawsuits were filed due to a discount on fees offered by a local Texas law firm
  - B. The lawsuits were filed to avoid the “Obama care” coverage mandate
  - C. The lawsuit were filed to avoid punitive damage claims
  - D. The lawsuits were filed to avoid statute of limitations arguments
  - E. None of the above
50. Many lease forms in the past have been designated as a “Producers 88” lease form.
- A. The lease got its name from Phillips 66, which developed the lease form and clauses
  - B. The lease form got its name from Mr. Hunt, explorationist from Dallas, a who used the form in the East Texas oilfield exclusively
  - C. The designation of a ‘producers 88’ lease form became a generic term used to entice mineral owners to sign a lease, and numerous ‘producer 88’ form leases exist
  - D. The ‘producers 88’ was named after a famous NASCAR driver who drove a car with that number that was sponsored by Texaco
  - E. None of the above

51. Our lease provides that the lease expires unless delay rentals are paid or operations for drilling are commenced. If the lease expires at midnight tonight, commencing drilling operations would not include which of the following?

- A. Moving a bulldozer onto the lease at 10:30 pm to build a road to the drilling pad
- B. Sending surveyors to the site to stake the site of the road to the drilling pad and pit prior to midnight
- C. Signing a contract for a drilling rig at the home office of the exploration firm prior to midnight
- D. Searching the surface for an existing wellbore that can be used in drilling operations prior to midnight
- E. None of the above

52. What is true about our standard form oil and gas lease?

- A. The lease provides for surface remediation to be conducted within 30 days of the drilling of a dry hole
- B. The lease provides that any salt water or crude oil spills be remediated immediately
- C. The lease provides that drilling information be given to the mineral owner on a timely basis
- D. The lease contains very few provisions dealing with remediation or environmental contamination
- E. The lease allows the mineral owner / lessor to shut in the well by giving 30 days notice

53. If the lessee breaches the terms of the oil and gas lease by, for example, not paying royalty payments timely, which of the following is true?

- A. The mineral owner / lessor can file a trespass action against the lessee
- B. The mineral owner / lessor can file a nuisance action against the lessee
- C. The mineral owner / lessor can file a breach of contract action against the lessee
- D. The mineral owner / lessor has no cause of action against the lessee
- E. The mineral owner / lessor will most likely receive punitive damages in any award that might be granted

54. If the lessee breaches the terms of the oil and gas lease by not paying royalty payments timely, which of the following is true?

- A. The mineral owner / lessor can recover the royalty and interest under Texas statutes
- B. The mineral owner / lessor can recover attorney's fees in any action under Texas statutes
- C. The mineral owner / lessor must give the lessee notice before filing a suit to recover unpaid royalties under the Texas statute
- D. All of the above
- E. None of the above

55. If the lessee fails to make a timely 'delay rental' payment under the oil and gas lease which of the following is true?

- A. The lease can be cancelled at the option of the lessee
- B. The lease can be cancelled at the option of the lessor
- C. The lease automatically terminates on non-payment
- D. A court will examine the facts to determine if the lease has terminated
- E. None of the above

56. A provision is inserted into an oil and gas lease allowing the lessee to 'dump wastes and salt water from any well drilled on said lands into the nearby creek and pond'. Which of the following is true?

- A. The oil and gas lease will be enforceable between the parties
- B. In general parties cannot contract to do an illegal act
- C. The contract will need to be reviewed by a court to determine if the clause is enforceable
- D. The oil and gas lease would not be valid due to a lack of consideration
- E. None of the above

57. By SEC regulation public oil and gas exploration and production companies are required to report on an annual basis which of the following information regarding their assets?

- A. The present value of their reserves, discounted at 5% (also known as 'PV5')
- B. The present value of their reserves, discounted at 10% (also known as 'PV10')
- C. The present value of their reserves, discounted at 15% (also known as 'PV15')
- D. The amount of natural gas flared during the latest fiscal year
- E. The amount of salt water produced during the latest fiscal year
- F. The number of contractors that have worked for the company in the last fiscal year

58. By SEC regulation public oil and gas companies are required to disclose their proved, probable, and possible reserves on an annual basis. Which of the following is true?

- A. Proved reserves are those reserves that engineers estimate have a 90% chance of being recovered
- B. Probable reserves are those reserves that engineers estimate have a 50% chance of being recovered
- C. Possible reserves are those reserves that engineers estimate have a 10% chance of being recovered
- D. For reserve reporting purposes 6,000 cubic feet of natural gas equals one barrel of oil
- E. All of the above are true

59. Our oil and gas lease does not expressly mention the grant of the right to conduct seismic or geophysical exploration to the lessee. Which of the following is true?

- A. If the right to shoot seismic is not mentioned in the lease, the lessee does not have that right
- B. If the exclusive right to shoot seismic is not set out in the lease, the mineral owner might be able to grant the right to shoot seismic to a third party other than the lessee
- C. The right to shoot seismic is a right that can be granted by the surface owner only, the mineral owner cannot grant this right by lease or otherwise
- D. The geophysical data obtained from any exploration must be promptly shared with the mineral owner / lessor
- E. None of the above

60. Some forms note that they are 'paid up' oil and gas leases. What does this terminology mean?

- A. The bonus has been paid up, and the lease is effective
- B. The shut in royalties have been paid up in advance, and the lease is effective
- C. The delay rentals have been paid up in advance, and the lease is effective
- D. The royalties have been paid up in advance, and the lease is effective
- E. All of the above
- F. None of the above

61. You obtain an oil and gas lease from Professor Bullock and drill a well on the property. It costs you \$1 million to drill the well, and the well produces around 50 barrels of oil per day. Title fails since Professor Bullock did not own the minerals. Which of the following is true?

- A. You can always recover your \$1 million in drilling costs when title fails for any reason
- B. You can never recover your \$1 million in drilling costs when title fails for any reason
- C. Whether you can recover your \$1 million in costs depends on if you made a 'good faith' mistake in examining title and determining ownership
- D. Whether you can recover your \$1 million in costs depends on the state of mind of Professor Bullock when he signed the lease
- E. The question of whether you can recover your \$1 million is a question of fact to be heard by the Texas Railroad Commission
- F. None of the above

62. In Texas if force majeure is not defined in the lease, which of the following would most likely be considered a force majeure event?

- A. The return of Gladys Night & the Pips to a Houston concert
- B. A major thunderstorm
- C. Lack of personnel to man the drilling rigs
- D. A major hurricane that approaches the Texas shoreline
- E. The lack of a drilling rig to spud a well
- F. None of the above

63. After you obtain an oil and gas lease you drill a well that produces 50 barrels of oil per day. Which of the following is true?

- A. Non payment of royalties to the mineral owner will terminate the lease
- B. Late payment of royalties to the mineral owner will terminate the lease
- C. Non payment of royalties under the oil and gas lease would be considered a nuisance
- D. Late payment of royalties to the mineral owner might subject the lessee to financial penalties
- E. Late payment of royalties would be subject to a fact finding hearing at the Texas Railroad Commission
- F. None of the above

64. You obtain an oil and gas lease, then drill a well and accidentally spill a bunch of crude oil and salt water into the local creek. The creek runs for several miles and you know some of the downstream owners use the water for irrigation and to water livestock. Which of the following is true?

- A. The lessee of the mineral owner is the dominant estate, so has no duty to warn of potential harm from the spill
- B. The party who creates the danger only has a moral duty to warn those downstream
- C. The party who creates the danger has a legal duty to warn those downstream of the potential danger
- D. The Railroad Commission has a duty to warn those downstream of the danger
- E. The EPA will determine who needs to be notified, and when, after a spill occurs
- F. None of the above

65. You obtain an oil and gas lease and drill a well in Texas that produces 50 barrels of oil per day. With regard to royalty payments which of the following is true?

- A. Royalty payments are generally made based on Brent crude pricing
- B. Royalty payments are generally made based on West Texas Intermediate crude pricing
- C. Royalty payments are generally made based on Louisiana Sweet crude pricing
- D. Royalty payments are generally made based on the field price for the crude being sold
- E. Royalty payments are subject to Railroad Commission review and adjudication
- F. Royalty payments will be reviewed by the Texas Tax Commission

66 - 70. The statute of limitations states that you need to file a claim or lawsuit within a given time period after the damage is apparent and obvious or the suit is barred. What arguments can you make to avoid the statute of limitations if you are a landowner?

66. \_\_\_\_\_

\_\_\_\_\_

67. \_\_\_\_\_

\_\_\_\_\_

68. \_\_\_\_\_

\_\_\_\_\_

69. \_\_\_\_\_

\_\_\_\_\_

70. \_\_\_\_\_

\_\_\_\_\_

71 – 75. SpongeBob is going to buy an interest in several wells in a 75 year old oil field. He is considering sampling for environmental harm. Discuss the pros and cons of sampling, and issues he might consider.

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Miscellaneous issues (1/2 point each):

76. The 'City of Light' was in what state? \_\_\_\_\_
77. An asteroid that allegedly caused the extinction of the dinosaurs created a massive oil field in what country?  
\_\_\_\_\_
78. Nitroglycerin dropped down a well that allowed a lessee to 'steal' their neighbors oil was in a device called a  
\_\_\_\_\_.
79. A promoter that used a mineral ownership theory adopted in Western states to exploit offsetting mine operations, and in the process crashed the U.S. economy and caused the "Panic of 1907" – eventually leading to the creation of the Federal Reserve, was \_\_\_\_\_
80. The 'hollow earth theory' involved a mine in what state? \_\_\_\_\_
81. The son of a goat herder that become a billionaire, perfecting hydraulic fracturing of the Barnett shale, is a Texas resident by the name of \_\_\_\_\_
82. An SMU graduate who become a billionaire investing in the oil and gas business, and is one of the richest Americans according to Forbes, is a Texas resident by the name of  
\_\_\_\_\_
83. The use of nuclear bombs to 'frac' tight formations in Colorado was successful, except the natural gas cannot be used because: \_\_\_\_\_
84. The Haber-Bosch process produces ammonium nitrate fertilizer that is essential to feed the world's 7 billion people. Without ammonium nitrate experts assert the world's agricultural lands could only feed around 3 billion people. What is the primary feedstock for ammonium nitrate fertilizer? \_\_\_\_\_
85. During the Great Depression the 'Technocrats' argued that the U.S. should abandon the 'gold standard', the backing of the dollar with physical gold. Thomas Edison was one of those that made this argument. What did they argue the dollar should be backed by? \_\_\_\_\_
86. Legislation adopted in the U.S. in the last decade has required refiners or retailers to blend ethanol into the gasoline feedstock. Besides water, what are the two main feedstock ingredients required to make ethanol?  
\_\_\_\_\_ and \_\_\_\_\_
87. Recently a pipeline running through Arkansas ruptured in a housing subdivision causing substantial damage. The pipeline was transporting Canadian crude oil to the Gulf coast. The pipeline was built in the 1940's and originally took crude oil from the coast of Texas and transported inland to the East Coast. Why was this pipeline built when it was cheaper to ship the oil by barge or ocean tanker from Texas to the East Coast of the U.S.?  
\_\_\_\_\_
88. The "Age of Oil" has its origins in Texas. Prior to that time there was a concern that oil might be scarce, and supplies might not be plentiful or cheap enough to warrant development of that resource. What was the name of the famous field that was discovered in 1901 near Beaumont, Texas? \_\_\_\_\_
89. The first well drilled in the U.S. in 1859, the "Drake Well", was drilled in what state? \_\_\_\_\_
90. The worst oil spill in U.S. history, the "Lakeview Gusher", occurred in what state? \_\_\_\_\_

91. On a total consumption basis, what country in the world consumes the most energy (oil, natural gas, coal, nuclear, hydro, biofuels and renewables)? \_\_\_\_\_
92. The Railroad Commission has special rules dealing with 'sour gas' due to the danger involved in handling that substance. What is the chemical name for sour gas? \_\_\_\_\_
93. From a geologic standpoint which city has older rock outcropping at the surface, Fort Worth or Dallas? \_\_\_\_\_
94. Natural gas is composed primarily of methane. Are leaks or releases of natural gas/methane considered by environmentalists a greenhouse gas which might contribute to global warming? \_\_\_\_\_
95. Some scientists contend that hydraulic fracturing of underground formations or the injection of salt water into disposal wells from oil and gas wells might create earthquakes nearby. If your house was damaged by an earthquake near an oil or gas field, would it be (a) easy or (b) difficult to prove the energy firm operating the wells nearby was responsible for such damage? \_\_\_\_\_
96. Does the Texas Railroad Commission review the terms of oil and gas leases negotiated between the mineral owners and lessees prior to the leases being filed in the real estate records? \_\_\_\_\_
97. When determining how to calculate damages in a given case the court many times will look to see if the damage is permanent or temporary. Have the courts established a clear rule to distinguish between the two, or is this issue a difficult one for the courts to decide in most cases? \_\_\_\_\_
98. The Eagle Ford shale formation is a prolific producing formation located near San Antonio. Does the Eagle Ford formation outcrop at the surface in the Dallas/Fort Worth area? \_\_\_\_\_
99. The Eagle Ford, Barnett, and Haynesville shales can be identified by Gamma Ray well logs that measure radioactivity, since shales are weakly radioactive and sandstones generally are not. True or false? \_\_\_\_\_
100. If a lease is 'held by production' into the secondary term by productive wells the lessee has the operational flexibility to delay or otherwise schedule when and where they allocate capital expenditures, as compared to a lease in the primary term that needs to be drilled by a certain date or it expires. True or false? \_\_\_\_\_

## END OF TEST

Note: Thanks for taking the class. Please remember that if you take a position in the energy industry or need a reference for grad studies or a job to let Professor Bullock or myself know. I have established a Linkedin group devoted to energy and investing issues, feel free to join. A number of my past students are members.

## Standard Form Oil & Gas Leases and Lease Provisions

A representative oil and gas lease from the American Association of Petroleum Landmen for Texas contains the following terms:

### AAPL FORM 675 OIL AND GAS LEASE TEXAS FORM-SHUT-IN CLAUSE, POOLING CLAUSE

THIS AGREEMENT made and entered into the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, by and between \_\_\_\_\_, Lessor and \_\_\_\_\_, Lessee. WITNESSETH:

1. Lessor, in consideration of the sum of \_\_\_\_\_ Dollars (\$\_\_\_\_), in hand paid, receipt of which is hereby acknowledged, and the royalties herein provided, does hereby grant, lease and let unto Lessee for the purpose of exploring, prospecting, drilling and mining for and producing oil and gas and all other hydrocarbons, laying pipe lines, building roads, tanks, power stations, telephone lines and other structures thereon to produce, save, take care of, treat, transport and own said products, and housing its employees, and without additional consideration, does hereby authorize Lessee to enter upon the land covered hereby to accomplish said purposes, the following described land in \_\_\_\_\_ County, Texas, to-wit:

[LEGAL DESCRIPTION INSERTED HERE]

This Lease also covers and includes any and all lands owned or claimed by the Lessor adjacent or contiguous to the land described hereinabove, whether the same be in said survey or surveys or in adjacent surveys, although not included within the boundaries of the land described above. For the purpose of calculating rental payments hereinafter provided for the lands covered hereby are estimated to comprise \_\_\_\_\_ acres, whether it actually comprises more or less.

2. Subject to the other provisions herein contained this Lease shall be for a term of \_\_\_\_\_ years from this date (called "primary term") and as long thereafter as oil and gas or other hydrocarbons are being produced from said land or land with which said land is pooled hereunder.

3. The royalties to be paid by Lessee are as follows: On oil, one-eighth of that produced and saved from said land, the same to be delivered at the wells or to the credit of Lessor into the pipe line to which the wells may be connected. Lessee shall have the option to purchase any royalty oil in its possession, paying the market price therefore prevailing for the field where produced on the date of purchase.

On gas, including casinghead gas, condensate or other gaseous substances, produced from said land and sold or used off the premises or for the extraction of gasoline or other products therefrom, the market value at the well of one-eighth of the gas so sold or used, provided that on gas sold at the wells the royalty shall be one-eighth of the amount realized from such sale.

While there is a gas well on this Lease, or on acreage pooled therewith, but gas is not being sold or used Lessee shall pay or tender annually at the end of each yearly period during which such gas is not sold or used, as royalty, an amount equal to the delay rental provided for in paragraph 5 hereof, and while said royalty is so paid or tendered this Lease shall be held as a producing Lease under paragraph 2 hereof. Lessee shall have free use of oil, gas and water from said land, except water



from Lessor's wells, for all operations hereunder, and the royalty on oil and gas shall be computed after deducting any so used.

4. Lessee, at its option, is hereby given the right and power to voluntarily pool or combine the acreage covered by this Lease, or any portion thereof, as to the oil and gas, or either of them, with other land, lease or leases in the immediate vicinity thereof to the extent hereinafter stipulated when in Lessee's judgment it is necessary or advisable to do so in order to properly develop and operate said leased premises in compliance with the Spacing Rules of the Railroad Commission of Texas, or other lawful authorities, or when to do so would, in the judgment of Lessee, promote the conservation of oil and gas from said premises.

Units pooled for oil hereunder shall not substantially exceed 80 acres each in area, and units pooled for gas hereunder shall not substantially exceed 640 acres each in area plus a tolerance of ten percent thereof in the case of either an oil unit or a gas unit, provided that should governmental authority having jurisdiction prescribe or permit the creation of units larger than those specified, units thereafter created may conform substantially in size with those prescribed by governmental regulations.

Lessee under the provisions hereof may pool or combine acreage covered by this Lease, or any portion thereof as above provided for as to oil in any one or more strata and as to gas in any one or more strata. The units formed by pooling as to any stratum or strata need not conform in size or area with the unit or units into which the Lease is pooled or combined as to any other stratum or strata, and oil units need not conform as to area with gas units. The pooling in one or more instances shall not exhaust the rights of Lessee hereunder to pool this Lease, or portions thereof, into other units.

Lessee shall file for record in the county records of the county in which the lands are located an instrument identifying and describing the pooled acreage. Lessee may at its election exercise its pooling operation after commencing operations for, or completing an oil or gas well on the leased premises, and the pooled unit may include, but is not required to include, land or leases upon which a well capable of producing oil or gas in paying quantities has theretofore been completed, or upon which operations for drilling of a well for oil or gas have theretofore been commenced.

Operations for drilling on or production of oil or gas from any part of the pooled unit composed in whole or in part of the land covered by this Lease, regardless of whether such operations for drilling were commenced or such production was secured before or after the execution of this instrument or the instrument designating the pooled unit, shall be considered as operations for drilling on or production of oil or gas from the land covered by this Lease whether or not the well or wells are actually located on the premises covered by this Lease, and the entire acreage constituting such unit or units, as to oil and gas or either of them as herein provided, shall be treated for all purposes except the payment of royalties on production from the pooled unit as if the same were included in this Lease.

For the purpose of computing the royalties to which owners of royalties and payments out of production and each of them shall be entitled upon production of oil and gas, or either of them from the pooled unit, there shall be allocated to the land covered by this Lease and included in said unit a pro rata portion of the oil and gas, or either of them, produced from the pooled unit after deducting that used for operations on the pooled unit. Such allocation shall be on an acreage basis, that is to say, there shall be allocated to the acreage covered by this Lease and included in the pooled unit that pro rata portion of the oil and gas, or either of them, produced from the pooled unit which the number of surface acres covered by this Lease and included in the pooled unit bears to the total number of surface acres included in the pooled unit.

Royalties hereunder shall be computed on the portion of such production, whether it be oil or gas or either of them, so allocated to the land covered by this Lease and included in the unit just as though such production were from such land. The production from an oil well will be considered as production from the Lease or oil pooled unit from which it is producing and not as production from a gas pooled unit; and production from a gas well will be considered as production from the Lease or gas pooled unit from which it is producing and not from the oil pooled unit.

5. If operation for drilling are not commenced on said land, or on acreage pooled therewith as above provided for, on or before one year from the date hereof, the Lease shall terminate as to both parties, unless on or before such anniversary date Lessee shall pay or tender to Lessor, or to the credit of Lessor in the \_\_\_\_\_, Bank at \_\_\_\_\_, Texas, (which Bank and its successors shall be Lessor's agent and shall continue as the depository for all rentals payable hereunder regardless of changes in ownership of said land or the rentals) the sum of \_\_\_\_\_ Dollars (\$\_\_\_\_\_), herein called rentals, which shall cover the privilege of deferring commencement of drilling operations for a period of twelve (12) months. In like manner and upon like payment or tenders annually the commencement of drilling operations may be further deferred for successive periods of twelve (12) months each during the primary term hereof.

The payment or tender of rental under this paragraph and of royalty under on or before the date of payment. If such Bank, or any successor Bank, should fail, liquidate or be succeeded by another Bank, or for any reason fail or refuse to accept rental, Lessee shall not be held in default for failure to make such payment or tender of rental until thirty (30) days after Lessor shall deliver to Lessee a proper recordable instrument, naming another Bank as Agent to receive such payments or tenders. Cash payment for this Lease is consideration for this Lease according to its terms and shall not be allocated as a mere rental for a period.

Lessee may at any time or times execute and deliver to Lessor, or to the depository above named, or place of record a release covering any portion or portions of the above described premises and thereby surrender this Lease as to such portion or portions and be relieved of all obligations as to the acreage surrendered, and thereafter the rentals payable hereunder shall be reduced in the proportion that the acreage covered hereby is reduced by said release or releases.

6. If prior to discovery of oil, gas or other hydrocarbons on this land, or on acreage pooled therewith. Lessee should drill a dry hole or holes thereon, or if after the discovery of oil, gas or other hydrocarbons, the production thereof should cease from any cause, this Lease shall not terminate if Lessee commences additional drilling or re-working operations within sixty (60) days thereafter, or if it be within the primary term, commences or resumes the payment or tender of rentals or commences operations for drilling or re-working on or before the rental paying date next ensuing after the expiration of sixty (60) days from the date of completion of the dry hole, or cessation of production.

If at any time subsequent to sixty (60) days prior to the beginning of the last year of the primary term, and prior to the discovery of oil, gas or other hydrocarbons on said land, or on acreage pooled therewith, Lessee should drill a dry hole thereon, no rental payment or operations are necessary in order to keep the Lease in force during the remainder of the primary term.

If at the expiration of the primary term, oil, gas or other hydrocarbons are not being produced on said land, or on acreage pooled therewith, but Lessee is then engaged in drilling or re-working operations thereon, or shall have completed a dry hole thereon within sixty (60) days prior to the end of the primary term, the Lease shall remain in force so long as operations are prosecuted with no cessation of more than sixty (60) consecutive days, and if they result in the production of oil, gas or other hydrocarbons, so long thereafter as oil, gas or other hydrocarbons are produced from said land, or acreage pooled therewith.

In the event a well or wells producing oil or gas in paying quantities shall be brought in on adjacent land and draining the leased premises, or acreage pooled therewith, Lessee agrees to drill such offset wells as a reasonably prudent operator would drill under the same or similar circumstances.

7. Lessee shall have the right at any time during or after the expiration of this Lease to remove all property and fixtures placed on the premises by Lessee, including the right to draw and remove all casing. When required by the Lessor, Lessee shall bury all pipelines below ordinary plow depth, and no well shall be drilled within two hundred (200) feet of any residence or barn located on said land as of the date of this Lease without Lessor's consent.

8. The rights of each party hereunder may be assigned in whole or in part, and the provisions hereof shall extend to their heirs, successors and assigns, but no change or division in the ownership of the land, rentals or royalties, however accomplished, shall operate to enlarge the obligations, or diminish the rights of Lessee; and no change or division in such ownership shall be binding on Lessee until thirty (30) days after Lessee shall have been furnished with a certified copy of recorded instrument or instruments evidencing such change of ownership. In the event of assignment hereof in whole or in part, liability for breach of any obligation issued hereunder shall rest exclusively upon the owner of this Lease, or portion thereof, who commits such breach.

In the event of the death of any person entitled to rentals hereunder, Lessee may pay or tender such rentals to the credit of the deceased or the estate of the deceased, until such time as Lessee has been furnished with the proper evidence of the appointment and qualification of an executor or an administrator of the estate, or if there be none, then until Lessee is furnished satisfactory evidence as to the heirs or devisees of the deceased, and that all debts of the estate have been paid.

If at any time two or more persons become entitled to participate in the rental payable hereunder. Lessee may pay or tender such rental jointly to such persons, or to their joint credit in the depository named herein; or, at the Lessee's election, the portion or part of said rental to which each participant is entitled may be paid or tendered to him separately or to his separate credit in said depository; and payment or tender to any participant of his portion of the rentals hereunder shall maintain this Lease as to such participant.

In the event of an assignment of this Lease as to a segregated portion of said land, the rentals payable hereunder shall be apportioned as between the several leasehold owners ratably according to the surface area of each, and default in rental payment by one shall not affect the rights of other leasehold owners hereunder. If six or more parties become entitled to royalty payments hereunder, Lessee may withhold payment thereof unless and until furnished with a recordable instrument executed by all such parties designating an agent to receive payment for all.

9. The breach by Lessee of any obligations arising hereunder shall not work a forfeiture or termination of this Lease nor cause a termination or reversion of the estate created hereby nor be grounds for cancellation hereof in whole or in part unless Lessor shall notify Lessee in writing of the facts relied upon in claiming a breach hereof, and Lessee, if in default shall have sixty (60) days after receipt of such notice in which to commence the compliance with the obligations imposed by virtue of this instrument, and if Lessee shall fail to do so then Lessor shall have grounds for action in a court of law or such remedy to which he may feel entitled.

After the discovery of oil, gas or other hydrocarbons in paying quantities on the lands covered by this Lease, or pooled therewith, Lessee shall reasonably develop the acreage retained hereunder, but in discharging this obligation Lessee shall not be required to drill more than one well per eighty (80) acres of area retained hereunder and capable of producing oil in paying quantities, and one well per

six hundred forty (640) acres of the area retained hereunder and capable of producing gas or other hydrocarbons in paying quantities plus a tolerance of ten per-cent in the case of either an oil well or a gas well.

10. Lessor hereby warrants and agrees to defend the title to said lands and agrees also that Lessee at its option may discharge any tax, mortgage or other liens upon said land either in whole or in part, and in the event Lessee does so, it shall be subrogated to such lien with the right to enforce same and apply rentals and royalties accruing hereunder towards satisfying same.

Without impairment of Lessee's rights under the warranty in event of failure of title, it is agreed that if Lessor owns an interest in the oil, gas or other hydrocarbons in or under said land, less than the entire fee simple estate then the royalties and rentals to be paid Lessor shall be reduced proportionately. Failure of Lessee to reduce such rental paid hereunder or over-payment of such rental hereunder shall not impair the right of Lessee to reduce royalties payable hereunder.

11. Should Lessee be prevented from complying with any express or implied covenant of this Lease, from conducting drilling, or reworking operations thereon or from producing oil or gas or other hydrocarbons therefrom by reason of scarcity of, or inability to obtain or to use equipment or material, or by operation of force majeure, or because of any federal or state law or any order, rule or regulation of a governmental authority, then while so prevented, Lessee's obligations to comply with such covenant shall be suspended, and Lessee shall not be liable in damages for failure to comply therewith; and this Lease shall be extended while and so long as Lessee is prevented by any such cause from conducting drilling or reworking operations on, or from producing oil or gas or other hydrocarbons from the leased premises; and the time while Lessee is so prevented shall not be counted against the Lessee, anything in this Lease to the contrary notwithstanding.

IN WITNESS WHEREOF this instrument is executed on the date first above set out.

\_\_\_\_\_  
STATE OF Texas  
COUNTY OF \_\_\_\_\_

Before me, the undersigned authority, on this day personally appeared \_\_\_\_\_ known to me to be the identical person \_\_\_\_\_ whose name \_\_\_\_\_ are/is subscribed to the foregoing instrument, and acknowledged to me that \_\_\_\_\_ he \_\_\_\_\_ executed the same for the purposes and consideration therein expressed.

Given under my hand and seal of office this the \_\_\_\_\_ day of \_\_\_\_\_ A. D., 20\_\_\_\_.

\_\_\_\_\_  
Notary Public in and for \_\_\_\_\_ County, Texas