described on Exhibit A which are intended to be contiguous, whether owned or claimed by deed, limitations or otherwise, and whether or not they are located inside or outside the property described on Exhibit A, and (b) any land lying in or under the bed of any highway, avenue, street, road, alley, easement or right-of-way, open or proposed, in, on, across, abutting or adjacent to the property described on Exhibit A, and all rights, titles and interests of Grantor, if any, in and to any awards hereafter made in lieu thereof, for damage by reason of change in grade of any such highway, avenue, street, road or alley (all of said property and interest being collectively referred to as the "Property").

SUBJECT, HOWEVER, to the exceptions to title more particularly set forth on Exhibit B attached hereto and fully made a part hereof by reference for all purposes (the "Permitted Encumbrances").

Grantor does hereby reserve to Grantor and Grantor's successors and assigns the subsurface mineral estate, including all oil, gas, coal, lignite, uranium and other minerals, in and under the Property, including mining rights, royalty interests, royalties, bonuses, rental and all other rights in connection therewith; provided, however, Grantor does not reserve any interest in any sand, gravel, peat and borrow materials located on or under the Property.

CHRISTOPHER C. MATHEWSON, PhD, PE, REG

Engineering Geologist
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23 September 2002

Dan Daniels, CRE
Greater Houston Market Services
6403 Seegers Trail
Houston, TX 77066

RE: Lignite Evaluation on lands owned by RII Timberland Partners 3

Dear Mr. Daniels:

At your request, I have reviewed and evaluated the potential value of lignite deposits that may be associated with approximately 70,000 acres of land located predominately within Walker County, Texas with smaller tracts located within Grimes, Madison, Trinity, and Polk Counties.

Introduction and Historical Review of Texas Lignite

I have reviewed the past history of Texas lignite exploration and development and the economic model and criteria that was utilized during the late 1970's and early 1980's to assess Texas lignite. The "Middle East" oil embargo, formation of OPEC and other energy related political and social concerns had created fear of an international "energy crisis" that greatly impacted the economic base for coal and lignite resources in the United States and Texas. With uncertainty about the petroleum resources available to the United States and the possibility of the removal of federal regulation of natural gas prices, coal and lignite became economically competitive. Mined land reclamation, air quality requirements and other environmental rules and requirements were not considered to become significant financial impediments to the development and utilization of coal and lignite for steam-electric generating stations to meet the Nation's electric power needs. I have summarized the results of my historical review in the paragraphs below:

- According to work by Kaiser (1974), the RII Timberland Partners 3 are within part of the Manning (Jackson) lignite trend and are an eastward extension of the "Gibbons Creek" trend (Figure 1). The Gibbons Creek lignite was discovered and developed into a mine-mouth power plant project in the early 1980's. The project is owned and operated by the Texas Municipal Power Agency (formerly the Texas Power Pool Incorporated) in Grimes County, Texas. Mining activities at the Gibbons Creek site are shut down at this time for economic reasons related to rising mining, reclamation and environmental costs at the mine that were not offset

by increases in the cost of other sources of energy. TMPA currently burns imported western coal at the Gibbons Greek steam-electric generating station.

- The economic assumptions that drove the exploration for and development of Texas lignite in the late 1970's were based on a predicted worldwide petroleum and natural gas energy crisis. The basic economic analysis used a base price of $1.00/million BTU's for Texas lignite and then scaled the other sources of fossil energy to recognize transportation of western coal or the wellhead costs for natural gas (unregulated) and crude oil (Figure 2). In hindsight, these predictions of extreme energy limitations and excessive costs never developed and today's market could not economically justify a new Texas lignite fueled steam-electric generating station.

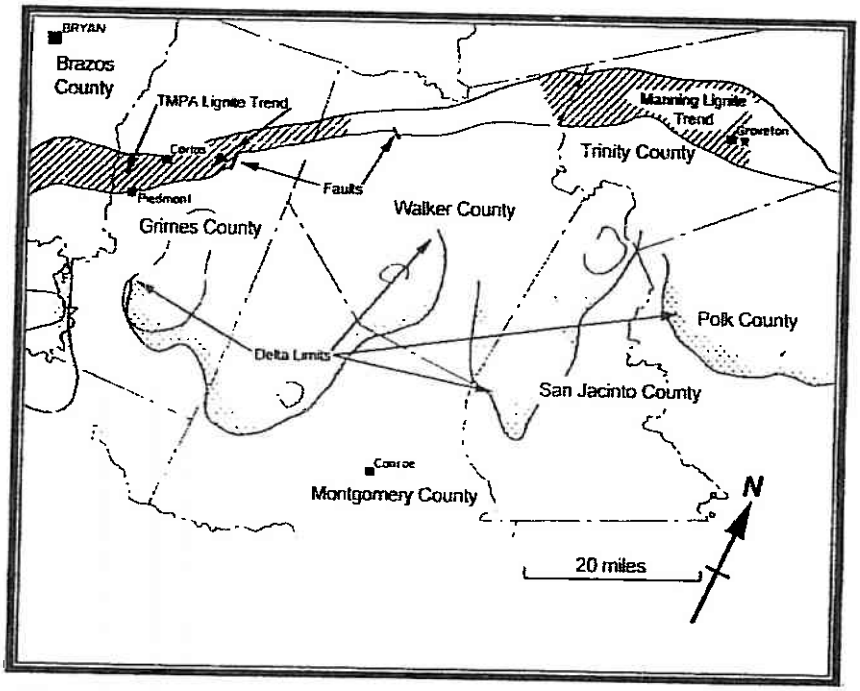


Figure 1. Map showing the distribution of the Manning lignite trend in Grimes, Walker and Trinity Counties, Texas. Note the location of the distal margins of the delta systems that were associated with the deposition of the lignite. Map reproduced from Kaiser (1974[i]).

- The economic model for recoverable Texas lignite was based on a minimum seam thickness of 4 feet of 6,000 BTU/lb lignite. The seam was then diluted using the upper 0.5 feet and lower 0.5 feet of overburden and floor materials to produce 300 BTU/lb and 80% Ash material. This 1.0 ft of dilution was added to the seam to obtain the run-of-mine lignite delivered to the power plant. A design 4 million tons/year of lignite with a field unit weight of 1750 tons/acre-foot was used to determine minimum mine area/year. For example a 4 feet thick seam yields 7,000 tons/acre and results in a minimum 572 acres/year of mined land.

- In addition to the minimum thickness and quality requirements in the economic feasibility analyses, the lignite seam must exist as a single geologic bed with only minimal partings and other bedding plain disturbances. The seam must also be continuous across a defined mining block with no significant fault offsets or other secondary discontinuities. Maximum depth to the lignite seam must be less than about 150 feet throughout the mining block.

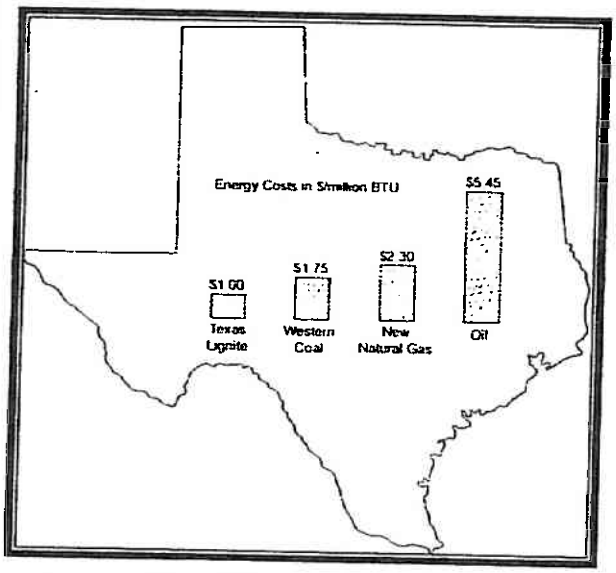


Figure 2. Relative cost per million BTU's from various energy sources using Texas lignite as the base price of $1.00/million BTU from mid 1970's economic assumptions.

- Land control issues also impact the economic recoverability of a lignite deposit. It is critical that the mining venture holds and controls continuous and contiguous tracts of land containing sufficient reserves of lignite to form a recoverable block. In addition to the acreage of lignite bearing land that is to be mined during the life of the mine, the land holdings must include sufficient operating space for mine operations, maintenance and transportation corridors (electric power, haul roads, dragline walk roads, etc.). In general a mine needs about 50% more land for support and operational activities (Figure 3).

- Insitu gasification of lignite to produce a low BTU "coal gas" requires a continuous, deeply buried (>500 feet), lignite seam to contain the generated gas and to minimize adverse surface, such as gas leaks and subsidence. In addition, insitu gasification operations must consider the impacts of such activities on the quantity and quality of the local ground water resources. Insitu gasification never became an economic energy resource because the international energy crisis never fully developed, thus making insitu gas uneconomical and a still unproven energy source.

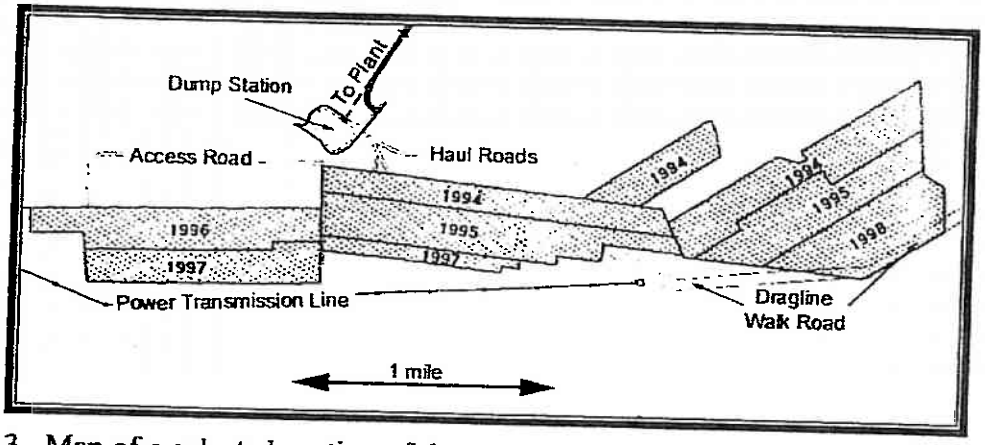


Figure 3. Map of a selected portion of the Gibbons Creek lignite mine plan showing the mining schedule and pit design. Note the offset between the western, central and eastern mine blocks that reflect the presence of faults and other discontinuities in the lignite seam.

Characteristics of the Lignite on the RII Timberland Partners 3 Lands

Based upon my professional experience in Texas lignite and a review of the exploration and development data obtained by the Paul Weir Company and SWEPCo in conjunction with the Cargill Companies of Longview Texas, I have determined the following physical and economic characteristics concerning the lignite resources on the RII Timberland Partners 3 lands:

- Properties within Groups 1, 2, 4, and parts of those in Groups 3 and 6 fall within the trend of the Manning lignite of Eocene age.

- Lignite associated with property in Group 5, located south of SH 30 in Walker County, is located south of the down-dip margin of economically recoverable lignite. These lignite deposits, which are deeper than 150 feet below the surface, lie outside any area of potentially economic lignite reserves and, therefore, were not explored nor leased for lignite.

- The scattered tracts of land located in Walker, Grimes, Polk, and Trinity counties that comprise Group 7 (except property GR02) also lie south of the economic limit of recoverable lignite reserves in the Manning lignite trend. In addition to the excessive depth of overburden, these tracts are too isolated and separated to produce an economically recoverable mining block.

- Laboratory analyses of the lignite samples collected from the seams in Walker County (Groups 1, 2 and 4) do not meet the desired 6,000 BTU/lb, but average about 5600 BTU/lb.

- A review and analysis of the results of 139 lignite core analyses and geophysical logs in Groups 1, 2 and 4 determined that 94 of these test borings yielded uneconomic seam thicknesses (less that 4 feet thick). These data indicate that 68%

of the borings showed conditions that do not support the economic development of a lignite mine.

- The lignite in Groups 1, 2, 4, and parts of those in Groups 3 and 6 was laid down in restricted wetland swamps associated with sand-rich fluvial and deltaic channels that represent areas of non-deposition of lignite. In addition to the fluvial-deltaic depositional environment in the Walker County area, the region is cut by localized faults associated with the geologic development of the modern Gulf Coast structural setting. This depositional and structural history has produced a series of limited lignite seams that are further disconnected by post-depositional displacement along faults. Note the two faults shown in Figure 1.

Conclusions

The lignite on the RII Timberland Partners 3 located in Walker and surrounding counties effectively has no economic value at this time. The long-term probability that these deposits will ever be mined for an energy resource, either by surface mining methods or insitu techniques, is very low because the seams are thin, contain low quality lignite and are discontinuous. A potential limited market for shallow portions of the seams may exist for activated carbon and charcoal production, however this is a small market. Supporting data and observations are presented in the following paragraphs:

- The exploration and development data obtained by Paul Weir' Company and SWEPCo, in conjunction with Cargill Companies, demonstrated that the lignite deposits do not meet the criteria as economic deposits commonly used in the late 1970's and early 1980's.

- Sixty-eight percent of the 139 exploration borings (94 borings) in Groups 1, 2, 4, and parts of Groups 3 and 6 contained lignite seams that were less than 4-feet thick, classified as uneconomic, and only 32% of the borings showed a lignite seam greater than 4-feet thick, classified as marginally economic. The results of this analysis are plotted on the map included in the pocket (Figure 5). Borings that yielded uneconomic values are shown in Red while those that are marginally economic are shown in Green.

- The data shown on the map (Figure 4) displays the lack of continuity of commercially mineable economic deposits using 1970's and early 1980's criteria.

- In addition, numerous faults and displacements, combined with areas of non-deposition or post-depositional erosion (washouts in the lignite) causes a serious lack of continuous uninterrupted seams. This has serious cost and operational implications because the massive strip mining equipment necessary for mining lignite is designed to operate along a fixed bed elevation.

- Lignite that may exist in Groups 5 and 7 is situated below the economic depth limit of 150 feet and therefore is not recoverable and has no economic value.

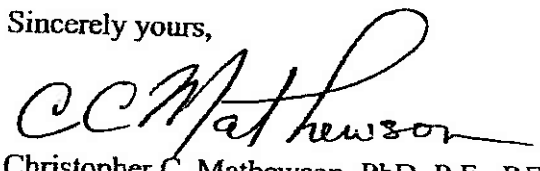
- In the past 25 years, the environmental protection requirements for ground water protection, soil reclamation, acid-mine drainage, wetland protection, wildlife habitat and soil erosion, for example, have significantly increased, making surface mining more costly.

- In addition to the environmental regulations related to mining, the Federal Air Quality Act and other air quality concerns have placed greater requirements on coal-fired, steam-electric generating stations with respect to sulphur dioxide and fly ash emissions.

- Insitu gasification operations are currently not technically feasible because of the shallow depth of burial, thin and discontinuous seams and low quality lignite. Additionally environmental and gas control problems with an untested technology will result in higher than normal operating costs.

Thank you for the opportunity to assist you in this matter. Please feel free to call me should you have any questions or need additional information.

Sincerely yours,



Christopher C. Mathewson, PhD, P.E., REG
Engineering Geologist

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[i] Kaiser, W.R., 1974, *Texas Lignite: Near-surface and Deep-basin Resources*, Report of Investigations – No. 79, Bureau of Economic Geology, The University of Texas at Austin, Austin, TX, 70 p.

CHRISTOPHER C. MATHEWSON, PhD, PE, REG

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College Station, TX 77840

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15 January 2003

Dan Daniels, CRE
Greater Houston Market Services
6403 Seegers Trail
Houston, TX 77066

Re: Lignite Resource Evaluation, RII Timberland Partners 3, L.P.

Dear Mr. Daniels:

This is to respond to your recent E-mail concerning questions about coalbed methane (coal-seam methane) potential in shallow lignite seams located in East Texas, specifically Walker County, Texas.

Methane is the simplest of the hydrocarbons, being CH_4, in which four hydrogen ions bond with one carbon ion. Methane is generated at shallow depths and low temperatures by bacterial activity in an anaerobic environment. This type of methane is known as bacteriogenic methane to differentiate it from methane generated from kerogen, which is deeply buried and altered organic matter that forms a critical step in the formation of petroleum and natural gas. Bacteriogenic methane is commonly associated with municipal landfills and some coal seams. Methane is often seen as a blue flame floating on the water surface in peat bogs. The burning methane is escaping into the atmosphere as it is generated at these shallow depths. Methane generated in municipal landfills is trapped by the required "water tight" cover material that is placed over the waste, which makes landfill generated methane both a potential local energy resource as well as an explosive gas hazard.

Higher ranked coals, sub bituminous and high volatile bituminous coals, contain coalbed methane that is generated during the early stages of production of kerogen-like organic molecules during maturation of the coals. The methane associated with these higher rank coals is both an underground mining hazard and a source of commercial natural gas. For example, coalbed methane recovery systems have been installed in high-gas coal seams in the San Juan basin of New Mexico, which now provide about 3% of US gas consumption. Coalbed methane exploration and production has also been carried out in other western sub-bituminous/bituminous coal fields in Colorado and Montana.

With respect to coalbed methane in shallow lignite seams, the amount of bacteriogenic methane in the seam is dependant upon the following factors:

1. the permeability of the overlying sediments
2. amount of organic matter in the seam
3. ground water conditions in the area
4. secondary fractures, faults and joints within the seam and overburden, and
5. temperature and pressure conditions during maturation of the peat to lignite.

Most bacteriogenic methane in shallow lignite has escaped during the burial and maturation process. Exploration for or the development of shallow lignite seams in east Texas to produce coalbed methane has not occurred. Some research was carried out by the petroleum industry during the 1980's energy crisis to develop deep lignite seams for coalbed methane or to develop technologies to generate coalbed methane by insitu techniques. This research, however, generally avoided the shallow, surface mineable or less than 200 ft deep lignite seams because the overburden was not sufficiently impermeable to confine the gas generated by the insitu process and because and deformation of the seam during processing could result in fault displacements and provide an escape route for the gas.

The shallow lignite deposits in Walker County, Texas do not exist in the appropriate environment for the natural formation of economic quantities of coalbed methane. The lignite is too immature for kerogen formed methane and not buried deep enough for the overburden to confine any bacteriogenic methane. For these reasons, the presence of naturally occurring concentrations of commercially viable coal gas (methane) does not exist in the shallow lignite deposits in East Texas.

Should the conditions exist to allow the future recovery of coal gas from shallow East Texas lignite deposits, recovery of this gas would be through a series of production wells rather than through surface mining of the lignite. Because the resource being recovered (methane) is not recovered by surface mining techniques but through a well field, any reservation or restriction to surface mining would not apply to the recovery of methane. Surface mining for methane gas is impossible because exposing the coal (source rock) to the atmosphere would allow the free escape of the methane to the atmosphere and thus its loss to the mine operator.

Please feel free to contact me should you have any questions or need additional information.

Sincerely yours,

CC Mathewson

Christopher C. Mathewson, PhD, PE, REG
Engineering Geologist

CHRISTOPHER C. MATHEWSON, PhD, PE, REG
Engineering Geologist

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Education:

PhD, 1971, Geological Engineering, University of Arizona
MS, 1965, Geological Engineering, University of Arizona
BS, 1963, Civil Engineering, Case Institute of Technology

Experience:

1988, 1992 summer: WES Graduate Institute, U. S. Army Engineer Waterways Experiment Station, Vicksburg MS.
1982-Present: Professor of Geology (Engineering Geology), Texas A&M University.
1982-1996: Director, Center for Engineering Geosciences, Texas A&M University.
1976-1982: Associate Professor of Geology (Engineering Geology), Texas A&M University.
1971-1976: Assistant Professor of Geology (Engineering Geology), Texas A&M University.
1966-1970: Commissioned Officer, ESSA now NOAA, U.S. Department of Commerce.

Professional Registrations:

Registered Professional Engineer (Geological), Texas; PE 33118
Registered Professional Geological Engineer, Arizona; PE 08472
Registered Engineering Geologist, Oregon; E285
Licensed Geologist, State of Alaska; AA 215
Certified Professional Geologist, American Institute of Professional Geologists; AIPG 2486

Professional Activities:

American Geological Institute: Vice-President and President-Elect (1990-1991); President (1991-1992); Past-President (1992-1993), Member Society Council (1993-1997: 1998-2002).
Association of Engineering Geologists: Editor (1981-88), *Bulletin of the Association of Engineering Geologists*; Vice President (1987-88); President (1988-89); Manager, Registration Committee (1991-1993), Executive Director (1998-2002).
Engineering Geology Division, Geological Society of America: Secretary-Treasurer (1984-85); Chairman-Elect (1985-86); Chairman (1986-87); Past Chairmen (1987-88); Chair, Long Range Planning Committee (1990-1993).
National Association of State Boards of Geology: National Geologist Examination Committee (1992-present)
U.S. National Committee on Geology/International Association of Engineering Geologists: Committee Member (1992-94); Chair (1995-1998).
Texas Section, Association of Engineering Geologists: Chair (1981-83), Membership Chair (1983-89), Registration Chair (1989-1994).
Society of American Military Engineers; Brazos Valley Post: Treasurer (1984-98).
National Coal Council: Member (1991-2003)

Research, Publication and Teaching Awards:

Listed in "Who's Who in Technology" and "Who's Who in America"
Claire P. Holdredge Award (1981), Floyd T. Johnston Service Award (1995), Association of Engineering Geologists.
Faculty Distinguished Achievement Award in Teaching (1985-86), Texas A&M University, Association of Former Students.
Meritorious Service Award, Engineering Geology Division, Geological Society of America, 1991.

Experience in Engineering Geology:

Research and field experience in engineering geology has concentrated on the investigation, analysis, and interpretation of the principals of Earth science that affect the economy and feasibility of engineered projects, the protection of public health, safety, and well-being, and the protection of the environment; resulting in over 75 technical papers and over 325 professional presentations.

Selected Research Contracts Related to Coal

1974 Reconnaissance Engineering Geology Study of Reclaimed, Strip Mined Land - Emphasis on Land Use," Texas Real Estate Research Center, 1 year $1,900.00

1975 Engineering Geology Analysis of the Suitability of Strip Mined Land for Real Estate Development," Texas Real Estate Research Center, 1 year, $10,000.00.

1976: "Evaluation of the Impact of Texas Lignite Development on Texas Water Resources," Office of Water Resources and Technology, Department of the Interior, 1 year, $17,249.00.

"Analysis of the Ground-Water Conditions, TPPI Fuel Deposit," Texas Municipal Power Agency, 1 year, $10,640.00.

"Analysis of Overburden Cores, TPPI Fuel Deposit," Texas Municipal Power Agency, 1 year, $27,500.00.

1977: "Evaluation of the Impact of Texas Lignite Development on Texas Water Resources," Office of Water Resources and Technology, Department of the Interior, 1 year, $15,650.00.

Analysis of the Ground-Water Conditions, TPPI Fuel Deposit," Texas Municipal Power Agency, 1 year, $8,750.00.

"Analysis of Overburden Cores, TPPI Fuel Deposit," Texas Municipal Power Agency, 1 year, $31,500.00.

1978: "Analysis of the Physical Environment and Characteristics of the South Hallsville Project," Southwestern Electric Power Company, 2 years, $175,168.00.

"The Impact of Surface Lignite Mining on Surface and Ground-Water Quality," Center for Energy and Mineral Resources, 2 year, $30,000.00.

1979: "Impact of Surface Lignite Mining on Ground Water," Center for Energy and Mineral Resources, 1 year, $17,900.00.

"The Impact of Surface Lignite Mining on Surface and Ground-Water Quality in Texas," U.S. Bureau of Mines, Department of the Interior, 2 years, $61,022.00.

1980: "Impact of Surface Lignite Mining on Ground Water," Center for Energy and Mineral Resources, 3 year, $50,800.00.

1981 "Standardization of Engineering and Environmental Geologic Maps, Gibbons Creek, Lignite Deposit, Grime County, Texas," Texas Municipal power Agency, 2 year, $55,000.00.

1982: "Assessment of Potential Ground-Water Contamination due to On-site Disposal of Power Plant Waste at Texas Lignite Surface Mines," Aluminum Company of America, 2 year, $57,000.

1983: "Impact of Surface Lignite Mining on Ground Water," Center for Energy and Mineral Resources, 1 year, $15,000.00.

1984 "Determination of Engineering Geology Properties from Exploration Data for Enhanced Lignite Exploration and Recovery," Center for Energy and Mineral Resources, 2 year, $40,985.00.

1985: "Establishment and Quality of a Ground-Water System in Reclaimed Overburden of the Gibbons Creek Lignite Mine," Texas Municipal power Agency, 2 years, $52,032.00.

1987: "Establishment and Quality of a Ground-Water System in Reclaimed Overburden of the Gibbons Creek Lignite Mine," Texas Municipal Power Agency, 2 year, $63,561.00.

1990: "Lignite Education Project," Phillips Petroleum Company Foundation, 3 year, $225,000.00.

1991: "Ground Water Recovery, Gibbons Creek Lignite Mine," Texas Municipal Power Agency, 3 year, $25,854.00.

Selected Publications Related to Coal

1977 "Geologic Occurrence and Characteristics, Texas Lignite," in *Lignite*, Texas Real Estate Research Center, Texas A&M University, 6 p.

1978 "Groundwater and Hydrology and Their Impact on Mining," in Proceedings *Gulf Coast Lignite Conference*, Houston, Texas, pp. 59-67.

"How and Where to Educate Coal Exploration Geologists," in G.A. Argall (editor), *2nd International Coal Exploration Symposium*, Denver, Colorado, pp. 44-59.

1979 "Hydrogeology of Reclaimed Gulf Coast Lignite Mines," with J.L. Kennedy and G.L. Pepper, in Proceedings, *Symposium of Surface Mining, Hydrology, Sedimentology, and Reclamation*, University of Kentucky, Lexington, Kentucky, pp. 321-330.

1980 "Engineering Geology of Texas Lignite Deposits," in Proceedings, *Texas A&M University Lignite Symposium*, pp. 3.1-3.11.

1980 "Application of Engineering Geology to the Evaluation and Planning of Coal Mines," in Proceedings, *First International Symposium on Mine Planning and Development*, Beijing/Beidaihe, Peoples Republic of China.

1981 "Maximize Geology--Minimize Your Exploration Budget," with S.W. Gowan, in Proceedings, *Third International Coal Exploration Symposium*, Calgary, Alberta, Canada, 16 p.

1982 "Exploration and Development, Gulf Coast Lignite," in Proceedings, *Symposium Sobre Prospeccion de Carbon*, Escula Tecnica Superior de Ingenieros de Minas, Oviedo, Spain, Area 1, pp. 183-213.

"Case Histories of Three Lignite Deposits in Texas," in Proceedings, *Symposium Sobre Prospeccion de Carbon*, Escula Tecnica Superior de Ingenieros de Minas, Oviedo, Spain, Area 1, pp. 127-146.

"Logging and Data Manipulation," in Proceedings, *Symposium Sobre Prospeccion de Carbon*, Escula Tecnica Superior de Ingenieros de Minas, Oviedo, Spain, Area 3, pp. 95-109.

1983 "Characterization of Gulf Coast Lignite Overburden for Mine Planning and Design," in Proceedings, *24th U.S. Symposium on Rock Mechanics*, Texas A&M University/Association of Engineering Geologists, pp. 677-686.

"Engineering Geologic Analysis of Exploration Data for Mine Planning," in Proceedings, *Fourth International Coal Exploration Symposium*, Sydney, New South Wales, Australia, 20 p.

"Maximization of Exploration Programs-or-How to Get Your Mine for the Smallest Bucks," in Proceedings, *Gulf Coast Lignite Conference*, Houston, Texas, pp. 69-92.

1986 "The Comprehensive Coal Exploration Program," in Proceedings, *Seminario sobre "La utilization de Diagrafias en mineria,"* University of Oviedo, Oviedo, Spain.

"Geotechnical Applications of Engineering Geology to Mine Planning, Design and Operation," in Proceedings, *Seminario sobre "La utilization de Diagrafias en mineria,"* University of Oviedo, Oviedo, Spain.

1986 "Engineering Geologic Aspects of Surface Mined Land Reclamation," in Proceedings, *Seminario sobre "La utilization de Diagrafias en mineria,"* University of Oviedo, Oviedo, Spain.

"The Hydrogeologic Characteristics of a Mine Site: A Four Part Problem," in Proceedings, *Seminario sobre "La utilization de Diagrafias en mineria,"* University of Oviedo, Oviedo, Spain.

"Pre and Post Mine Geotechnical Conditions for Surface Mines; Developed from the Comprehensive Exploration Program," in Singhal, Raj K., (Editor), *Geotechnical Stability in Surface Mining*, A.A. Balkema, Rotterdam, Holland, 411 p., with Kerry D. Cato.

1988 "The Establishment of a Ground-Water System in Cast Overburden of a Texas Gulf Coast Surface Lignite Mine," In Graves, D.H. (editor), *1988 National Symposium on Mining, Hydrology, Sedimentation and Reclamation*, Reno, NV: University of Kentucky, Lexington, KY, pp. 59-65, with Evelyn S. Borbely.

"Stratigraphy of Gulf Coast Lignite Mine Spoil -- Influences on Post-mine Hydrogeology and Soil Profile Development," In Graves, D.H. (editor), *1988 National Symposium on Mining, Hydrology, Sedimentation and Reclamation*, Reno, NV: University of Kentucky, Lexington, KY, pp. 143-148, with Evelyn S. Borbely.

1990 "Lignite, Ground Water and a National Historic Spring: A Case History from the Gibbons Creek Lignite Mine, Grimes County, Texas," in Graves, D. H. (editor), Proceedings *1990 National Symposium on Mining*, University of Kentucky, Lexington, KY, pp. 223-230.

1992 "Modeling Overburden Geochemistry: Enhancing Reclamation Planning for Surface Coal Mines", *28th Engineering Geology and Geotechnical Engineering Symposium*, Boise, ID, 2 April, with Laurence D. Parisot.

Selected Student Research Related to Coal

Armstrong, S.C., 1987, *Engineering Geologic Analysis of Reclaimed Spoil at a Southeast Texas Gulf Coast Surface Lignite Mine*, M.S., 179 p.

Bishop, M.A., 1977, *Engineering Geology Study of Highwall Stability for a Proposed Lignite Mine in Grimes County, Texas*, M.S., 142 p.

Bowman, L.G., 1978, *Analysis of the Risk of Deep Groundwater Pollution Due to Surface Mining for Lignite in Grimes County, Texas*, M.S., 99 p.

Borbely, E.S., 1988, *Development and Chemical Quality of a Ground-Water System in Cast Overburden at the Gibbons Creek Lignite Mine*, M.S., 199 p.

Cason, C.L., 1982, *Engineering Geologic Feasibility of Lignite Mining in Alluvial Valleys by Hydraulic Dredging Methods*, M.S., 168 p.

Cato, K.D., 1985, *Variation in Physical Rock Properties Determined from Sonic Logs at a South Texas Lignite Mine*, M.S., 113 p.

Charles, R.J., 1979, *Hydrogeology of a Proposed Surface Lignite Mine, Southwestern Harrison County, Texas*, M.S., 126 p.

Cole, W.F., 1980, *Geology and Engineering Geology of a Wilcox Lignite Deposit in Northeastern Rusk County, Texas*, M.S., 186 p.

Eicher, R.N., 1985, *The Stratigraphy of the Jackson Group, Grimes County, Texas*, M.S., 181 p.

Gowan, S.W., 1985, *Depositional Environment of the San Miguel Lignite Deposit in Atascosa and McMullen Counties, Texas*, PhD, 199 p.

Green, D.J., 1984, *Evaluation of Ground-Water Quality Impacts of Lignite Waste Disposal at a Texas Lignite Mine*, M.S., 90 p.

Hall, S.D., 1986, *Potential for Selenium Migration at a Lignite Power Plant Solid Waste Disposal Facility*, M.S. 198 p.

Kennedy, J.L., 1981, *Hydrogeology of Reclaimed Gulf Coast Lignite Mines*, PhD, 285 p.

Levitan, L.M., 1976, *Effects of Hydrogeology on Lignite Recovery in the Manning Formation, Grimes County, Texas*, M.S., 75 p.

Nolan, E.D.L., 1985, *An Engineering Geologic Impact Analysis of Hydraulic Dredging for Lignite in Texas Alluvial Valleys*, M.S., 141 p.

Parisot, L.D., 1991, *Correlation of Stratigraphy with Revegetation Conditions at the Gibbons Creek Lignite Mine, Grimes County, Texas*, MS., 152 p.

Peace, KH., 1995, *Water Table Recovery in a Reclaimed Surface Lignite Mine, Grimes County, Texas*, MS., 138 p.

Pepper, G.L., 1980, *Hydrogeology of a Reclaimed Central Texas Lignite Mine*, M.S., 77 p.

Pollock, C.R., 1982, *Ground-Water Hydrogeology and Geochemistry of a Reclaimed Lignite Surface Mine*, M.S., 152 p.

Rangel, J.E., 1979, *The Effect of Stratigraphy and Soil Plasticity on the Settlement Characteristics of Reclaimed Surface Mined Land*, M.S., 109 p.

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