

MEMORANDUM OF SECOND AMENDMENT TO
COAL SEAM GAS LEASE

STATE OF ALABAMA

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§

COUNTY OF SHELBY

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THIS MEMORANDUM OF SECOND AMENDMENT TO COAL SEAM GAS LEASE, hereinafter referred to as "Lease", dated effective the 14th day of AUGUST, 2003 ("Effective Date"), is between **United States Steel Corporation**, a Delaware Corporation, successor (by conversion) to United States Steel, LLC and remote successor to USX Corporation, hereinafter referred to as "Lessor", and **GeoMet, Inc.** an Alabama corporation, hereinafter referred to as "Lessee".

W I T N E S S E T H

WHEREAS, by Coal Seam Gas Lease dated April 9, 2002 (the "Lease"), Lessor granted Lessee the right to explore for and produce Coal Seam Gas as defined therein from certain lands located in Shelby and Bibb Counties, Alabama ("Leased Premises"); and

WHEREAS, Lessor and Lessee amended said Lease by First Amendment of Coal Seam Gas Lease dated March 24, 2003 by adding additional lands to the Leased Premises and

WHEREAS, Lessor and Lessee desire to further amend the Lease by a Second Amendment of Coal Seam Gas Lease (Second Amendment) by adding additional provisions and lands as set forth herein.

NOW THEREFORE, notice is hereby given that Lessor has executed and delivered to Lessee a Second Amendment of Coal Seam Gas Lease dated AUGUST 14, 2003, under which Lessor has granted, leased and let unto Lessee, additional lands set out on Exhibit "A" attached hereto, along with the following additional rights:

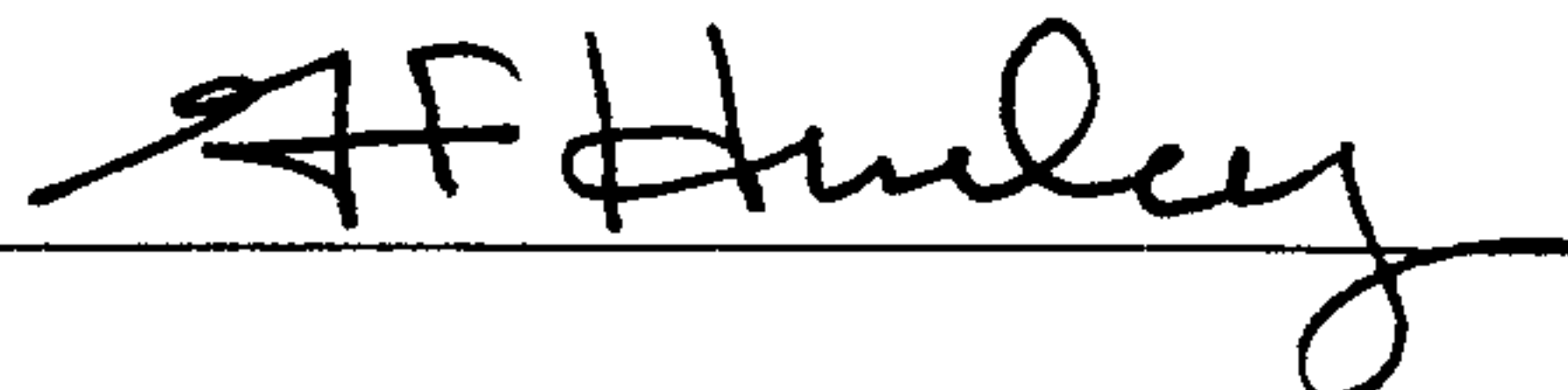
To explore for and produce oil and natural gas located in entire **Section 2 of Township 21 South, Range 4 West, Shelby County, Alabama**, Alabama as may be discovered within the depths drilled by the USS 2-12-1 well designated as Alabama State Oil and Gas Board Permit # 12943. If no oil or natural gas is produced from the well within one (1) year of the date of said Second Amendment, the oil and gas rights granted herein shall automatically be deleted from the Premises and shall revert to Lessor.

This Memorandum shall serve as notice of the execution and existence of said Second Amendment, and is in no way to supersede, abrogate, change or modify any of the terms, conditions, rights or obligations of the parties. All the terms, conditions and covenants of the

Second Amendment shall be binding upon and shall inure to the benefit of the successors and assigns, of each respective party hereto.

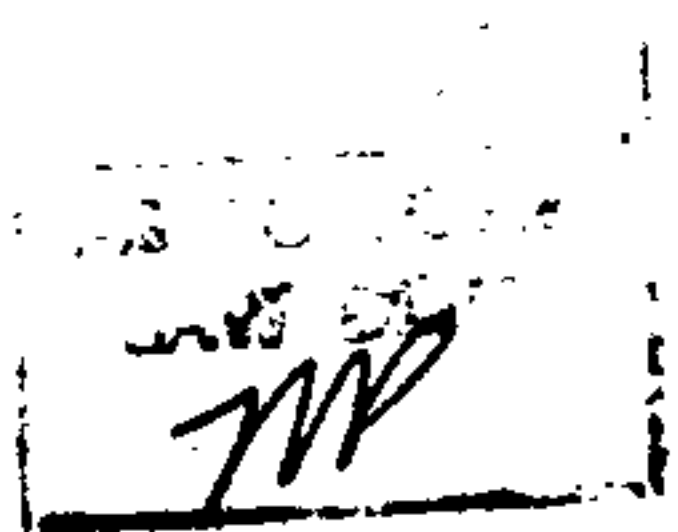
LESSOR

UNITED STATES STEEL CORPORATION

By: 

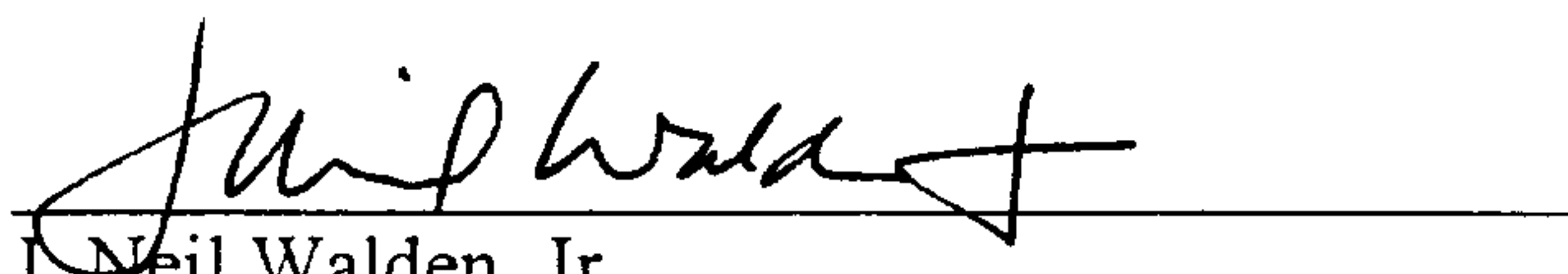
President: USS Real Estate, a division of United States Steel Corporation

Date: 09/15/03

 TP

LESSEE

GEOMET, INC.



J. Neil Walden, Jr.


Vice President

STATE OF PENNSYLVANIA)

COUNTY OF ALLEGHENY)

I, the undersigned authority, a Notary Public in and for said County in said State, hereby certify that GARRETT HURLEY, whose ~~NAME AS~~ **PRESIDENT OF USS REAL ESTATE, A DIVISION** of United States Steel Corporation, a Delaware Corporation, is signed to the foregoing instrument, and who is known to me, acknowledged before me on this day that, being informed of the contents of the instrument, he, as such officer and with full authority, executed the same voluntarily for and as the act of said corporation on the day the same bears date.

Given under my hand and official seal, this the 15TH day of SEPTEMBER, 2003.


Notary Public in and for the
State of PENNSYLVANIA

My Commission Expires:

03-21-05

Notarial Seal
Mary D. Schwarman, Notary Public
Pittsburgh, Allegheny County
My Commission Expires Mar. 21, 2005
Member, Pennsylvania Association of Notaries

STATE OF ALABAMA

COUNTY OF JEFFERSON

I, the undersigned authority, a Notary Public in and for said County in said State, hereby certify that J. Neil Walden Jr., whose name as **Vice President, GeoMet, Inc.**, an Alabama corporation, is signed to the foregoing instrument, and who is known to me, acknowledged before me on this day that, being informed of the contents of the foregoing, he, as such officer and with full authority executed the same voluntarily for and as the act of said corporation on the day the same bears date.

Given under my hand and official seal, this the 18th day of September, 2003.

Beth S. Vernon

Notary Public in and for the
State of Alabama

My Commission Expires:

March 16, 2004

This instrument was prepared by:

Clay C. Dickinson

GeoMet, Inc., 5336 Stadium Trace Parkway, Suite 206

Birmingham, AL 35244

EXHIBIT "A"

Attached to that certain lease amendment dated _____, 2003,
Between United States Steel Corporation and GeoMet, Inc.

SHELBY COUNTY, ALABAMA

GROUP NO. I – Lands in which USSC owns all interests.

| <u>SECTION</u> | <u>DESCRIPTION</u> | <u>ACRES</u> |
|--|--|---------------|
| <u>Township 20 South, Range 3 West</u> | | |
| 31 | The East half of the North-West quarter; The South-West quarter of the North-West quarter; The South half of the Section; The South half of the North-East quarter; The North-West quarter of the North-East quarter. | <u>560.00</u> |
| TOTAL TOWNSHIP | | 560.00 |
| <u>Township 20 South, Range 4 West</u> | | |
| 25 | The South half of the South-West quarter. | 80.00 |
| 26 | The South half of the South-East quarter. | 80.00 |
| 33 | The South-East quarter of the South-East quarter, less and except the following two parcels of land: (1) Begin at the southwest corner; thence north along the west boundary of said quarter-quarter section 900.0 feet; thence turning an angle of 90 degrees 19 minutes to the right east 99.40 feet to intersection with the arc of a curve turning to the left southwest, south, and southeast and having a radius of 869.02 feet, said arc of said curve also being the west boundary of right of way of Southern Railway as now located, said arc being subtended by a chord 336.60 feet in length, said chord forming an angle of 98 degrees 31 minutes to the right from the course above described as having a length 99.40 feet; thence southwest, south and southeast along said arc 338.74 feet to point of beginning of a straight line tangent to said arc, said straight line also being the west boundary of said right of way; thence southeast along said straight line 310.13 feet to point of beginning of the arc of a curve turning to the right southwest and having a radius of 666.78 feet, said arc being subtended by a chord 260.22 | 38.35 |

feet in length, said arc also being the west boundary of said right of way; thence southwest along said arc 261.88 feet to intersection with the south boundary of said quarter-quarter section, said south boundary forming an angle of 81 degrees 24 minutes to the right from said chord; thence west along said south boundary 19.70 feet to point of beginning; (2) Begin at the southwest corner of said quarter-quarter section; thence east along the south boundary of said quarter-quarter section 125.50 feet to intersection with the arc of a curve turning to the left northeast and north, this being the point of beginning of said excepted tract; also being a point in the east boundary of right of way of Southern Railway as now located, said arc having a radius of 766.78 feet, said arc being subtended by a chord 264.10 feet in length, said chord forming an angle of 82 degrees 44 minutes to the left from said south boundary; thence northeast and north along said arc and also along said east boundary of right of way 265.43 feet to intersection with a straight line radial to said arc, said radial line forming an angle of 80 degrees 05 minutes to the right from said chord; thence east along said radial line 80.00 feet to intersection with the arc of a curve turning to the right south and southwest, said arc having a radius of 846.78 feet and being subtended by a chord 267.36 feet in length, said chord forming an angle of 99 degrees 05 minutes to the right from said radial line; thence south and southwest along said arc 268.49 feet to intersection with the south boundary of said quarter-quarter section; thence west along said south boundary 83.37 feet to point of beginning.

| | | |
|----------------|--|---------------|
| 34 | The west half of the North-West quarter; the South-East quarter of the North-West quarter; the South-West quarter; the west half of the South-East quarter; the South-East quarter of the South-East quarter; the west half of the North-East quarter. | 480.00 |
| 35 | The south half of the South-West quarter; the east half of the section. | 400.00 |
| 36 | The west half of the Section; the South-East quarter; the south half of the North-East quarter. | <u>560.00</u> |
| TOTAL TOWNSHIP | | 1,638.35 |

Township 21 South, Range 4 West

| | | |
|---|---|--------|
| 3 | The West half of the North-East quarter; the North-West quarter except the North-East quarter of North-West quarter | 200.00 |
| 4 | The West half of Section; the South-West quarter of North-East | |

| | | |
|---|---|--------|
| | Quarter; the North half of North-East quarter | 440.00 |
| 5 | The East half of North-East quarter except the following described tract: Begin at the southeast corner of South-East quarter of North-East quarter of Section 5; thence in a westerly direction along the south boundary of said South-East quarter of North-East quarter 887.89 feet; thence turning an angle of 160 degrees 29 minutes to the right in a northeasterly direction 442.69 feet; thence turning an angle of 15 degrees 06 minutes to the right in a northeasterly direction 470.00 feet to intersection with the east boundary of said South-East quarter of North-East quarter; thence turning an angle of 93 degrees 49 minutes to the right in a southerly direction along said east boundary 184.09 feet to point of beginning; the North half of North-West quarter; the South-West quarter of North-West quarter; the North half of South-West quarter; the South-West quarter of South-West quarter; the West Half of South-East quarter | 397.50 |
| 6 | The North-East quarter of South-West quarter | 40.00 |
| 7 | The West half of the South-West quarter; that part of the South-East quarter of the South-West quarter and that part of the West-Half of the South-East quarter lying south of the centerline of Shelby Co. Road 13; the South-East quarter of the South-East quarter. | 175.92 |
| 8 | The West half of Section except the North-East quarter of North-west quarter | 280.00 |
| 9 | The entire Section except the following described tracts: (1) Begin at the northeast corner of the North-East quarter of North-West quarter; thence west along the north boundary of said quarter-quarter section 211.45 feet; thence turning an angle of 94 degrees 23 minutes to the left southeast along the center line of right of way of Southern Railway Company as now located 696.00 feet; thence turning an angle of 90 degrees to the left northeast 50.00 feet to intersection with the east boundary of said right of way of Southern Railway Company, this being point of beginning of tract of land herein excepted; thence turning an angle of 90 degrees to the right southeast along said east boundary of right of way 372.75 feet to point of beginning of the arc of a curve turning to the left southeast and having a radius of 1,382.69 feet, said arc being subtended by a chord 198.72 feet in length; thence southeast along said arc and also along said east boundary of right of way 198.89 feet to intersection with a straight line radial to said arc, said radial line forming an angle of 94 degrees 07 minutes to the left from said chord; thence northeast along said radial line 50.00 feet to intersection with the arc of a curve turning to the right northwest and having a radius of 1,332.69 feet, said arc being subtended by a chord 191.54 feet in length; said chord forming an angle of 85 degrees 53 minutes to the left from said radial line; thence northwest along said arc 191.70 feet to point of beginning of a straight line tangent to said arc; thence northwest along said straight line 372.75 feet; thence turning an angle of 90 degrees to the left southwest 50.00 feet to point of beginning; | |

(2) Begin at the northeast corner of the North-East quarter of North-West quarter; thence west along the north boundary of said quarter-quarter section 211.45 feet; thence turning an angle of 94 degrees 23 minutes to the left southeast along the center line of right of way of Southern Railway Company as now located 696.00 feet; thence turning an angle of 90 degrees 00 minutes to the right southwest along a straight line 50.00 feet to intersection with the west boundary of said right of way of Southern Railway Company, this being point of beginning of boundary of tract of land herein excepted; thence continuing southwest along said straight line 200.00 feet; thence turning an angle of 90 degrees 00 minutes to the left southeast 372.75 feet to point of beginning of the arc of a curve turning to the left and having a radius of 1,682.69 feet, said arc being subtended by a chord 241.82 feet in length; thence southeast along said arc 242.05 feet to intersection with a straight line radial to said arc, said radial line forming an angle of 94 degrees 07 minutes to the left from said chord; thence northeast along said radial line 200.00 feet to intersection with the west boundary of said right of way of Southern Railway Company, said intersection being in the arc of a curve turning to the right and having a radius of 1,482.69 feet, said arc being subtended by a chord 213.10 feet in length, said chord forming an angle of 85 degrees 53 minutes to the left from said radial line; thence northwest along said arc and also along said west boundary of right of way, 213.28 feet to point of beginning of a straight line tangent to said arc; thence northwest along said straight line and also said west boundary of right of way 372.75 feet to point of beginning.

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| | | 636.59 |
| 17 | The North-East quarter of Section; the West half of North-West quarter; the East half of South-West quarter; the North-East quarter of South-East quarter. | 360.00 |
| 19 | The North-East quarter of North-East quarter; the South half of North-West quarter | 120.00 |
| 20 | North half of North-West quarter | 80.00 |
| 21 | West half of North-West quarter | <u>80.00</u> |
| | TOTAL TOWNSHIP | 2,810.01 |

Township 21 South, Range 5 West

| | | |
|----|---|--------|
| 12 | The East half of the South-East quarter | 80.00 |
| 24 | The South-West quarter of the South-East quarter | 40.00 |
| 25 | The West half of North-East quarter; the South-East quarter of South-West quarter; the South-West quarter of South-East quarter | 160.00 |

| | | |
|-----------------------------------|--|--------------|
| 36 | North-East quarter of the North-West quarter; North-West quarter of the North-East quarter | <u>80.00</u> |
| TOTAL TOWNSHIP | | 360.00 |
| TOTAL GROUP NO. I - SHELBY COUNTY | | 5,368.36 |

GROUP NO. II – Land in which USSC owns mineral interests only.

Township 20 South, Range 4 West

| <u>SECTION</u> | <u>DESCRIPTION</u> | <u>ACRES</u> |
|----------------|---|--------------|
| 27 | The South-West quarter of the South-East quarter. | 40.00 |
| 33 | <p>The following described 2 tracts located in the South-East quarter of the South-East quarter:</p> <p>(1) Begin at the southwest corner; thence north along the west boundary of said quarter-quarter section 900.0 feet; thence turning an angle of 90 degrees 19 minutes to the right east 99.40 feet to intersection with the arc of a curve turning to the left southwest, south, and southeast and having a radius of 869.02 feet, said arc of said curve also being the west boundary of right of way of Southern Railway as now located, said arc being subtended by a chord 336.60 feet in length, said chord forming an angle of 98 degrees 31 minutes to the right from the course above described as having a length 99.40 feet; thence southwest, south and southeast along said arc 338.74 feet to point of beginning of a straight line tangent to said arc, said straight line also being the west boundary of said right of way; thence southeast along said straight line 310.13 feet to point of beginning of the arc of a curve turning to the right southwest and having a radius of 666.78 feet, said arc being subtended by a chord 260.22 feet in length, said arc also being the west boundary of said right of way; thence southwest along said arc 261.88 feet to intersection with the south boundary of said quarter-quarter section, said south boundary forming an angle of 81 degrees 24 minutes to the right from said chord; thence west along said south boundary 19.70 feet to point of beginning; (2) Begin at the southwest corner of said quarter-quarter section; thence east along the south boundary of said quarter-quarter section 125.50 feet to intersection with the arc of a curve turning to the left northeast and north, this being the point of beginning of said excepted tract; also being a point in the east</p> | 1.65 |

boundary of right of way of Southern Railway as now located, said arc having a radius of 766.78 feet, said arc being subtended by a chord 264.10 feet in length, said chord forming an angle of 82 degrees 44 minutes to the left from said south boundary; thence northeast and north along said arc and also along said east boundary of right of way 265.43 feet to intersection with a straight line radial to said arc, said radial line forming an angle of 80 degrees 05 minutes to the right from said chord; thence east along said radial line 80.00 feet to intersection with the arc of a curve turning to the right south and southwest, said arc having a radius of 846.78 feet and being subtended by a chord 267.36 feet in length, said chord forming an angle of 99 degrees 05 minutes to the right from said radial line; thence south and southwest along said arc 268.49 feet to intersection with the south boundary of said quarter-quarter section; thence west along said south boundary 83.37 feet to point of beginning.

| | | |
|----------------|---|--------------|
| 34 | The North-East quarter of the North-West quarter; The East half of the North-East quarter. | 120.00 |
| 35 | The North-West quarter of the North-West quarter; the east half of the east half of the North-West quarter. | <u>80.00</u> |
| TOTAL TOWNSHIP | | 241.65 |

Township 21 South, Range 4 West

| | | |
|---|---|--------|
| 4 | The South-East quarter of North-East quarter | 40.00 |
| 5 | The South-East quarter of South-West quarter; the East half of South-East quarter; that part of the South-East quarter of North-East quarter described as follows: Begin at the southeast corner of said quarter-quarter section; thence in a westerly direction along the south boundary of said South-East quarter of North-East quarter 887.89 feet; thence turning an angle 160 degrees 29 minutes to the right in a northeasterly direction 442.69 feet; thence turning an angle of 15 degrees 06 minutes to the right in a northeasterly direction 470.00 feet to intersection with the east boundary of said South-East quarter of North-East quarter; thence turning an angle of 93 degrees 49 minutes to the right in a southerly direction along said east boundary 184.09 feet to point of beginning | 122.50 |
| 6 | The South-East quarter of South-West quarter; the South half of South-East quarter | 120.00 |
| 7 | The North-East quarter; the South half of the North-West quarter; that part of the East half of the South-West quarter lying North of the centerline of Shelby Co. Road 13; that part of the West half of the South-East quarter lying North of Shelby Co. Road 13. | 344.08 |

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The following described tracts located in the North-East quarter of North-West quarter: (1) Begin at the northeast corner of the North-East quarter of North-West quarter; thence west along the north boundary of said quarter-quarter section 211.45 feet; thence turning an angle of 94 degrees 23 minutes to the left southeast along the center line of right of way of Southern Railway Company as now located 696.00 feet; thence turning an angle of 90 degrees to the left northeast 50.00 feet to intersection with the east boundary of said right of way of Southern Railway Company, this being point of beginning; thence turning an angle 90 degrees to the right southeast along said east boundary of right of way 372.75 feet to point of beginning of the arc of a curve turning to the left southeast and having a radius of 1,382.69 feet, said arc being subtended by a chord 198.72 feet in length; thence southeast along said arc and also along said east boundary of right of way 198.89 feet to intersection with a straight line radial to said arc, said radial line forming an angle of 94 degrees 07 minutes to the left from said chord; thence northeast along said radial line 50.00 feet to intersection with the arc of a curve turning to the right northwest and having a radius of 1,332.69 feet, said arc being subtended by a chord 191.54 feet in length; said chord forming an angle of 85 degrees 53 minutes to the left from said radial line; thence northwest along said arc 191.70 feet to point of beginning of a straight line tangent to said arc; thence northwest along said straight line 372.75 feet; thence turning an angle of 90 degrees to the left southwest 50.00 feet to point of beginning; (2) Begin at the northeast corner of the North-East quarter of North-West quarter; thence west along the north boundary of said quarter-quarter section 211.45 feet; thence turning an angle of 94 degrees 23 minutes to the left southeast along the center line of right of way of Southern Railway Company as now located 696.00 feet; thence turning an angle of 90 degrees 00 minutes to the right southwest along a straight line 50.00 feet to intersection with the west boundary of said right of way of Southern Railway Company, this being point of beginning of boundary; thence continuing southwest along said straight line 200.00 feet; thence turning an angle of 90 degrees 00 minutes to the left southeast 372.75 feet to point of beginning of the arc of a curve turning to the left and having a radius of 1,682.69 feet, said arc being subtended by a chord 241.82 feet in length; thence southeast along said arc 242.05 feet to intersection with a straight line radial to said arc, said radial line forming an angle of 94 degrees 07 minutes to the left from said chord; thence northeast along said radial line 200.00 feet to intersection with the west boundary of said right of way of Southern Railway Company, said intersection being in the arc of a curve turning to the right and having a radius of 1,482.69 feet, said arc being subtended by a chord 213.10 feet in length, said chord forming an angle of 85 degrees 53 minutes to the left from said radial line; thence northwest along said arc and also along said west boundary of right of way, 213.28 feet to point of beginning of a straight line tangent to said arc; thence northwest along said straight line and also said west boundary of right of way 372.75 feet to point of beginning.

TOTAL TOWNSHIP 3.41
629.99

TOTAL GROUP NO. II – SHELBY COUNTY 871.64

TOTAL SHELBY COUNTY 6,600.00