



TOWN OF LONGBOAT KEY

Incorporated November 14, 1955

Town Hall
501 Bay Isles Road
Longboat Key, Florida 34228-3196
(941) 316-1999
SUNCOM 516-2760
Fax **(941) 316-1656**
www.longboatkey.org

February 17, 2010

Mick Denham
Sanibel Mayor
800 Dunlop Road
Sanibel, Florida 33957

Dear Mayor Denham,

Thank you for your letter of February 5, 2010 transmitting a copy of Sanibel City Council Resolution 10-010, expressing the City's formal opposition to oil and gas drilling in the Gulf of Mexico.


The Town of Longboat Key adopted Resolution 2009-41 on October 5, 2009 (attached), stating the Town's opposition to the proposal to allow oil and gas drilling in the Gulf of Mexico and also reached consensus to sign a letter presented at the Sarasota County Convocation of Governments that presented a unified opposition to oil drilling. That letter includes a signature page for individual City and County elected officials and was provided to the Sarasota County Legislative Delegation. The letter exhibits unified, strong opposition to any legislation that would authorize offshore oil and gas drilling in Florida waters by all of the County and municipal elected officials (copy attached).

The Town followed up by encouraging Manatee County elected officials to adopt a similar document to present to their legislative delegation. I am pleased to attach a copy of the fully executed document adopted by the Manatee County Board of County Commissioners and signed by the Manatee County municipalities.

The Town applauds your community leaders for taking a stance on this extremely important issue and encourages you to seek consensus within Lee County and your local municipalities to further this effort to oppose legislation that would adversely affect our State and beachfront communities.

Again, we appreciate your taking the time to transmit your Resolution and for taking such a strong leadership role in seeking to defeat this proposed legislation.

My best regards,


Lee Rothenberg,
Mayor

RESOLUTION 2009-41

A RESOLUTION OF THE TOWN OF LONGBOAT KEY, FLORIDA, OPPOSING THE APPROVAL FOR EXPANSION OF OFFSHORE DRILLING IN THE GULF OF MEXICO IN AREAS OTHER THAN THOSE ALREADY APPROVED FOR OIL LEASING AND EXPLORATION; PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Gulf of Mexico Energy Security Act, adopted by Congress in 2006, prohibits drilling in the part of the Eastern Planning Area of the Gulf of Mexico Outer Continental Shelf Region lying within 125 miles of Florida's coastline, and in a portion of the Central Planning Area of the Gulf of Mexico Outer Continental Shelf Region, until June 30, 2002; and

WHEREAS, the U.S. Energy Department's forecasting arm has said opening the Pacific, Atlantic, and eastern Gulf of Mexico regions to drilling would not have a significant impact on domestic crude oil prices before the year 2030; and

WHEREAS, in 2009, House Bill 1219 was introduced in the Legislature of the State of Florida which would allow drilling for oil and gas from between three to nine miles off the West coast of Florida's coastline (mean high tide line) from the Apalachicola area to the Key West area; and

WHEREAS, tourism accounts for one-third of budget revenues statewide and 96% of those visitors cite the beaches as an influential factor in their decision to visit Florida; and

WHEREAS, resort tax collection statewide exceeded 25 million dollars in Fiscal Year 2007 and almost 86 thousand Floridians are employed in businesses that directly or indirectly support tourism; and

WHEREAS, the area with the potential for the greatest risk of environmental damage is the eastern part of the Gulf of Mexico, off the western coast of Florida; and

WHEREAS, according to Oil Industry data, an oil rig in the Gulf of Mexico can dump up to 90,000 tons of drilling fluid and metal cuttings over its lifetime. These contaminants accumulate in the marine food web and may contaminate local beaches and have a negative effect on the environment and the tourism industry; and

WHEREAS, it is our belief that despite technological advances in oil rig drilling technology, there are no positive assurances that catastrophic damage to our coastline, beaches, and plant and fish life could be avoided during normal operating conditions or during storm situations; and

NOW, THEREFORE, be it resolved by the Town Commission of the Town of Longboat Key, Florida, that:

SECTION 1. The above Whereas clauses are true and correct and are hereby ratified and confirmed.

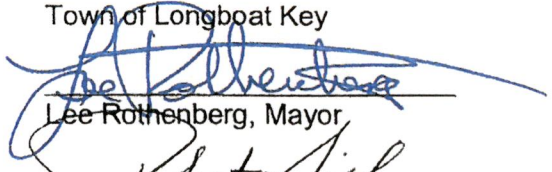
SECTION 2. The Town of Longboat Key, Florida encourages all elected officials at the County, State, and Federal levels to oppose legislative attempts to allow offshore oil drilling expansion past the areas already approved for pre-leasing, leasing, and oil production activities.

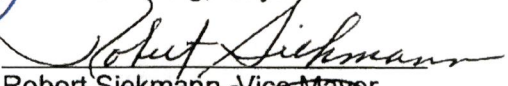
SECTION 3. That before any expansion past the areas already approved for leasing and oil production activities is considered, the existing leases must be exercised and utilized where found to be productive.

SECTION 4. Effective Date. This Resolution shall become effective immediately upon adoption.


Passed by the Town Commission of the Town of Longboat Key on this 5th day of October, 2009.

Town of Longboat Key

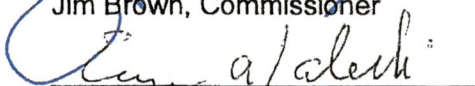

Lee Rothenberg, Mayor


Robert Siekmann, Vice Mayor


George Spoll, Commissioner

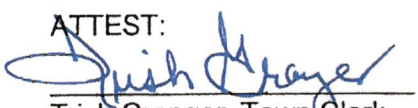

Peter O'Connor, Commissioner


Jim Brown, Commissioner


Gene Jaleski, Commissioner


Hal Lenobel, Commissioner

ATTEST:


Trish Granger, Town Clerk





Sarasota County



City of Sarasota



City of Venice



Town of Longboat Key



City of North Port

October 9, 2009

Subject: Prohibit Offshore Drilling in Florida Waters

Dear Members of the Sarasota County Legislative Delegation:

As elected public officials of Sarasota County, the City of North Port, the City of Sarasota, the City of Venice and the Town of Longboat Key, we want to express our unified strong opposition to legislation that would authorize offshore oil and gas drilling in Florida waters.

Elected local officials attending the convocation of governments on September 29, 2009, unanimously voted to urge the Legislature to prohibit offshore oil and gas drilling in the territorial waters of the state. This is a critical issue to our communities. We ask you to join us in opposing any initiatives designed to allow offshore drilling off the coast of Florida and to retain the current statutory ban on such drilling.

As coastal communities, Sarasota County and the municipalities within the county are extremely concerned about any activity that could impact the quality and health of our coast. We believe that offshore drilling will compromise the integrity of Florida waters. Our community identity, economy and culture are integrally linked and dependent on a healthy and attractive coastal environment. Our valuable marine environments and the wildlife could suffer serious, perhaps catastrophic, and long-lasting harm if an accident occurs off the coast of Florida. Impacts on tourism from spills could cripple our economy. The risks of drilling are too high for our communities and for the State of Florida.

We recognize that this issue generates a great deal of pressure given the current economic situation and the need to seek energy independence. Yet, oil production will take years to develop and the promise of local jobs and increased revenues is highly speculative. Offshore drilling is not a viable long term solution to energy independence and economic development.

We ask the members of the Sarasota County Legislative Delegation to officially oppose any legislative initiatives that facilitate oil and gas exploration off the coast of Florida. This legislation must be opposed to preserve our tourist economy, protect our clean beaches and shores, and ensure that our natural resources and coastal community character are retained.

We are unified in our strong opposition to any initiatives to allow offshore drilling in Florida waters. Please consider our concerns on this critical issue to the state and our community.

Sincerely,

Public Officials of Sarasota County and the Municipalities within the County
(see attached signatures)

Distribution:

Sarasota County Legislative Delegation

The Honorable Ron Reagan
Chair, Sarasota County Legislative Delegation
District 67, Florida House of Representatives

The Honorable Michael Bennett
District 21, Florida Senate

The Honorable Nancy Detert
District 23, Florida Senate

The Honorable Keith Fitzgerald
District 69, Florida House of Representatives

The Honorable Doug Holder
District 70, Florida House of Representatives

The Honorable Ken Roberson
District 71, Florida House of Representatives

The Honorable Darryl Rouson
District 55, Florida House of Representatives

cc.

The Honorable Charlie Crist, Governor
United States Congressman Vern Buchanan
United States Senator Bill Nelson
United States Senator George LeMeaux
The Honorable Jeff Atwater, President of the Florida Senate
The Honorable Larry Cretul, Speaker of the Florida House of Representatives
Florida Senate Environmental Preservation and Conservation Committee
Florida Senate Policy and Steering Committee on Energy, Environment and Land Use
Florida Senate Committee on Communications, Energy, and Public Utilities
Florida House Energy and Utilities Policy Committee
Florida House Agriculture and Natural Resources Committee
Florida House General Government Policy Council
Florida House Policy Council
United States House Energy and Commerce
United States House Natural Resources
United States Senate Environment and Public Works
United States Senate Energy and Natural Resources
United States Senate Finance



Sarasota County



City of Sarasota



Venice, Florida
"City on the Gulf"

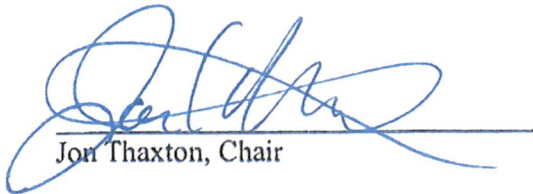


Town of Longboat Key

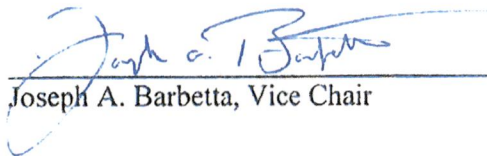


City of North Port

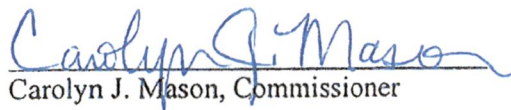
Sarasota Board of County Commissioners



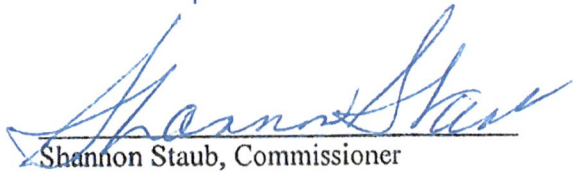
Jon Thaxton, Chair



Joseph A. Barbetta, Vice Chair



Carolyn J. Mason, Commissioner



Shannon Staub, Commissioner



Nora Patterson, Commissioner



Sarasota County



City of Sarasota



City of Venice



Town of Longboat Key



City of North Port

Town of Longboat Key

Lee Rothenberg, Mayor

Robert Siekmann, Vice-Mayor

Jim Brown, Commissioner

George Spell, Commissioner

Peter O'Connor, Commissioner

Gene Jaleski, Commissioner

Hal Lenobel, Commissioner



Sarasota County



City of Sarasota



Venice, Florida
"City on the Gulf"

City of Venice



Town of Longboat Key



City of North Port

City of Sarasota

Richard Clapp

Richard Clapp, Mayor

Kelly Kirschner

Kelly Kirschner, Vice Mayor

Terry Turner

Terry Turner, Commissioner

Fredd Atkins

Fredd Atkins, Commissioner

Suzanne Atwell

Suzanne Atwell, Commissioner



Sarasota County



City of Sarasota



City of Venice



Town of Longboat Key



City of North Port

City of North Port

A blue ink signature of Vanessa Carusone, written in a cursive style.

Vanessa Carusone, Chairperson

A black ink signature of David Garofalo, written in a cursive style.

David Garofalo, Commissioner

A black ink signature of Tom Jones, written in a cursive style.

Tom Jones, Commissioner

A black ink signature of Jim Blucher, written in a cursive style.

Jim Blucher, Commissioner

A black ink signature of Michael Treubert, written in a cursive style.

Michael Treubert, Commissioner



Sarasota County



City of Sarasota



Venice, Florida
City on the Gulf

City of Venice



Town of Longboat Key



City of North Port

City of Venice

Ed Martin, Mayor

Sue Lang, Vice Mayor

Vicki Noren, Council Member

Ernie Zavodnyik, Council Member

John K. Moore, Council Member

Kit McKeon, Council Member

John Simmonds, Council Member



MANATEE COUNTY FLORIDA

November 23, 2009

Respected Members of the Manatee County Legislative Delegation:

The elected public officials of Manatee County, the City of Bradenton, the City of Palmetto, the City of Anna Maria, the City of Bradenton Beach, the City of Holmes Beach and the Town of Longboat Key want to express our unified strong opposition to legislation that would authorize offshore oil and gas drilling in Florida waters.

There is consensus among elected local officials to urge the Legislature to prohibit offshore oil and gas drilling in the territorial waters of the state. We ask you to join us in opposing initiatives to allow offshore drilling off the coast of Florida and to retain the current statutory ban on such drilling.

If this matter of critical and far-reaching import to our coastal community comes before you in a vote this year, please consider:

- The beaches of Anna Maria Island and Longboat Key are among our community's most valuable resources. The area's natural beauty is the driving force behind a tourism industry that hosted more than 446,000 visitors in 2008 resulting in a total economic impact of over \$479 million to Manatee County's economy. The unknown possibilities of drilling could jeopardize our pristine coast.
- Some offshore sites will be exempt from drilling, leaving beaches like Anna Maria Island and Longboat Key to bear a disproportionate burden. That burden will include environmental damage and the cost of cleanups from oil spills and accidents related to drilling for oil in state waters.
- The potential impacts of drilling would impact, perhaps most severely, the people who call Manatee County home. Beachfront property values could plummet.
- Drilling poses a clear threat to Florida's \$562 billion-a-year coastal economy including tourism, fishing and other water-dependent businesses. A nearby oil spill has the potential to ruin the boating, fishing, charters, scuba diving and parasailing pastimes and related water industries that are a local way of life.

Board of County Commissioners
1112 Manatee Avenue West * P.O. Box 1000 * Bradenton, FL 34206-1000
Phone: 941.745.3700 * Fax: 941.745.3790
www.myanatee.org

LARRY BUSTLE * DR. GWENDOLYN Y. BROWN * JOHN R. CHAPPIE * RON GETMAN * DONNA G. HAYES * CAROL WHITMORE * JOE MCCLASH
District 1 District 2 District 3 District 4 District 5 District 6 District 7

- Oil production will take years to develop and the promise of local jobs and increased revenues is highly speculative. Offshore drilling is not a viable long term solution to energy independence and economic development.
- Offshore oil drilling and its underwater components could have a direct adverse impact on valuable sand resources that will one day be utilized for the important beach nourishment of Anna Maria Island.
- The possibility of offshore drilling presents a significant threat to the unique birds, fish and wildlife indigenous to southwest Florida. Our valuable marine environments and the wildlife could suffer serious, perhaps catastrophic and long-lasting harm if an accident occurs off the coast of Florida.
- Public beach access is important not only as major recreational and economic engine for Manatee County and the State of Florida, but also serves as an important free recreational resource. Some of the free public beach access provided on Anna Maria Island and on Longboat Key would be adversely impacted if the sand were to become polluted by the impacts of oil and gas drilling.
- Proposed or planned drilling operations in the Gulf of Mexico could impair, restrict or negatively impact the ability of the United States military, and specifically Eglin Air Force Base, Tyndall Air Force Base, Hurlburt Field, Duke Field or the NAS Pensacola assigned, tenant, remote and/or guest units, to fully utilize the existing Joint Gulf Range Complex (JGRC) airspace and surface waters for ongoing or planned aircraft test, weapons test and/or training missions.

We ask the members of the Manatee County Legislative Delegation to officially oppose any legislative initiatives that facilitate oil and gas exploration off the coast of Florida. This legislation must be opposed to preserve our tourist economy, protect our clean beaches and shores and to ensure that our natural resources and coastal community character are retained.

We are unified in strong opposition to any initiatives to allow offshore drilling in Florida waters, as demonstrated with the signature sheets attached. Please consider our concerns on this critical issue to the state and to our community.

Sincerely,

Public Officials of Manatee County, the City of Bradenton, the City of Palmetto, the City of Anna Maria Island, the City of Bradenton Beach, the City of Holmes Beach and the Town of Longboat Key.

Cc: U.S. Representative Vern Buchanan, U.S. Representative Kathy Castor, U.S. Senator George LeMieux, U.S. Senator Bill Nelson, Governor Charlie Crist, Florida House Speaker Larry Cretul, Florida Senate President Jeff Atwater, Senate President-Designate Mike Haridopolos, House Speaker-Designate Dean Cannon, Cari Roth, Esquire, Jocelyn Hong, 21st Century Group, Inc.



Manatee Board of County Commissioners

Dr. Gwendolyn Y. Brown

Dr. Gwendolyn Y. Brown, Chairman

Carol Whitmore

Carol Whitmore, First Vice-Chairman,

Donna Hayes

Donna Hayes, Second Vice-Chairman

Larry Bustle

Larry Bustle, Third Vice-Chairman

John R. Chappie

John R. Chappie, Commissioner

Ron Getman

Ron Getman, Commissioner

Joe McClash

Joe McClash, Commissioner



Town of Longboat Key

Lee Rothenberg, Mayor and Commissioner

George Spoll, Commissioner

Peter O'Connor, Commissioner

Jim Brown, Commissioner

Robert Siekmann, Vice Mayor and Commissioner

Hal Lenobel, Commissioner

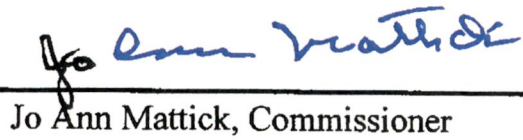
Gene Jaleski, Commissioner



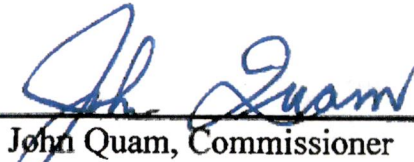
City of Anna Maria



Fran Barford, Mayor



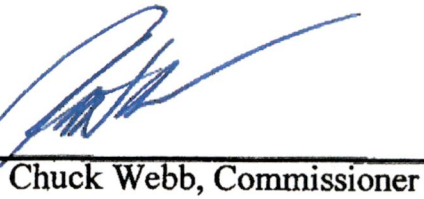
Jo Ann Mattick, Commissioner



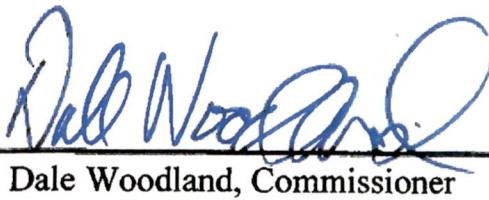
John Quam, Commissioner



Christine Tollette, Commissioner



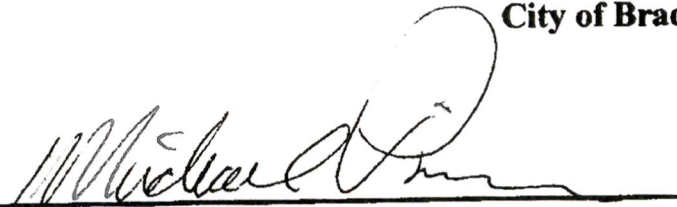
Chuck Webb, Commissioner

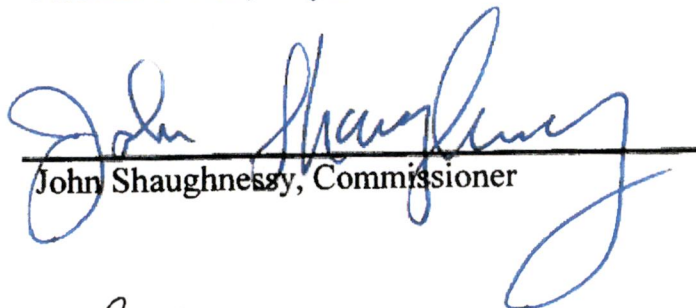


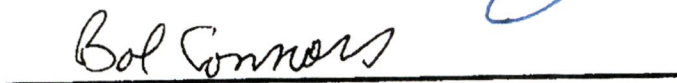
Dale Woodland, Commissioner




City of Bradenton Beach


Michael Pierce, Mayor


John Shaughnessy, Commissioner


Bob Connors, Commissioner


Jamie Robertson, Commissioner


Bob Bartelt, Commissioner



City of Holmes Beach

Rich Bohnenberger

Rich Bohnenberger, Mayor

Sandy Haas-Martens

Sandy Haas-Martens, Commission Chair

John Monetti

John Monetti, Commissioner

Pat Morton

Pat Morton, Commissioner

Pat Geyer

Pat Geyer, Commissioner

David Zaccagnino

David Zaccagnino, Commissioner



516 8th Avenue West
P.O. Box 1209
Palmetto, Florida 34220-1209
Phone (941) 723-4570
Fax: (941) 723-4576
Suncom: 516-0829
E-mail: chgeneral@palmettofl.org
Web: www.palmettofl.org

November 16, 2009

Respected Members of the Manatee County Legislative Delegation:

As elected public officials of Manatee County, the City of Bradenton, the City of Palmetto, the City of Anna Maria, the City of Bradenton Beach, the City of Holmes Beach and the Town of Longboat Key, we want to express our unified strong opposition to legislation that would authorize offshore oil and gas drilling in Florida waters.

There was consensus among elected local officials attending the October 21, 2009 Council of Governments meeting to urge the Legislature to prohibit offshore oil and gas drilling in the territorial waters of the state. We ask you to join us in opposing initiatives designated to allow offshore drilling off the coast of Florida and to retain the current statutory ban on such drilling.

If this matter of critical and far-reaching import to our coastal community comes before you in a vote this year, please consider:

The beaches of Anna Maria Island and Longboat Key are among our community's most valuable resources. The area's natural beauty is the driving force behind a tourism industry that hosted more than 446,000 visitors in 2008 resulting in a total economic impact of over \$479 million to Manatee County's economy. The unknown possibilities of drilling would jeopardize our pristine coast.

- Because some offshore sites would be exempt from drilling, Anna Maria Island and Longboat Key beaches will bear a disproportionate burden of the environmental damage and cost of clean-up from oil spills and related accidents caused by oil drilling were it to occur in state waters.
- The potential impacts of drilling would impact, perhaps the most severely, the people who call Manatee County home. Beachfront property values could plummet. A nearby oil spill has the potential to ruin the boating, fishing, charters, scuba diving and parasailing pastimes and related water industries that are a local way of life.
- Drilling poses a clear threat to Florida's \$562 billion-a-year coastal economy including tourism, fishing and other water-dependent businesses.
- Oil production will take years to develop and the promise of local jobs and increased revenues is highly speculative. Offshore drilling is not a viable long term solution to energy independence and economic development.
- Offshore oil drilling and its underwater components could have a direct adverse impact on valuable sand resources that will one day be utilized for the important beach nourishment of Anna Maria Island.
- The possibility of offshore drilling presents a significant threat to the unique birds, fish and wildlife indigenous to southwest Florida. Our valuable marine environments and the wildlife could suffer serious, perhaps catastrophic and long-lasting harm if an accident occurs off the coast of Florida.

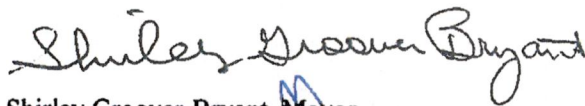
- Public beach access is important not only as major recreational and economic engine for Manatee County and the State of Florida, but also serves as an important free recreational resource. Some of the free public beach access provided on Anna Maria Island and on Longboat Key would be adversely impacted if the sand were to become polluted by the impacts of oil and gas drilling.
- Proposed or planned drilling operations in the Gulf of Mexico could impair, restrict or negatively impact the ability of the United States military, and specifically Eglin Air Force Base, Tyndall Air Force Base, Hurlburt Field, Duke Field or the NAS Pensacola assigned, tenant, remote and/or guest units, to fully utilize the existing Joint Gulf Range Complex (JGRC) airspace and surface waters for ongoing or planned aircraft test, weapons test and/or training missions.

We ask the members of the Manatee County Legislative Delegation to officially oppose any legislative initiatives that facilitate oil and gas exploration off the coast of Florida. This legislation must be opposed to preserve our tourist economy, protect our clean beaches and shores and to ensure that our natural resources and coastal community character are retained.

We are unified in strong opposition to any initiatives to allow offshore drilling in Florida waters. Please consider our concerns on this critical issue to the state and to our community.

Sincerely,

City of Palmetto



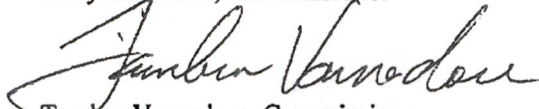
Shirley Groover-Bryant, Mayor



Tamara Cornwell, Commissioner




Mary Lancaster, Commissioner



Tamara Varnadore, Commissioner



Brian Williams, Commissioner



Alan Zirkelbach, Commissioner

A RESOLUTION OF THE CITY OF BRADENTON, FLORIDA, URGING THE
LEGISLATURE TO PROHIBIT OFFSHORE OIL AND GAS DRILLING IN THE
TERRITORIAL WATERS OF THE STATE OF FLORIDA.

WHEREAS, the beaches of Anna Maria Island and Longboat Key are among our community's most valuable resources. The area's natural beauty is the driving force behind a tourism industry that hosted more than 446,000 visitors in 2008 resulting in a total economic impact of over \$479 million to Manatee County's economy. The unknown possibilities of drilling could jeopardize our pristine coast; and

WHEREAS, some offshore sites will be exempt from drilling, leaving beaches like Anna Maria Island and Longboat Key to bear a disproportionate burden. The burden will include environmental damage and the cost of cleanups from oil spills and accidents related to drilling for oil in state waters; and

WHEREAS, the potential impacts of drilling would impact, perhaps most severely, the people who call Manatee County home. Beachfront property values could plummet; and

WHEREAS, drilling poses a clear threat to Florida's \$562 billion-a-year coastal economy including tourism, fishing and other water-dependent businesses. A nearby oil spill has the potential to ruin the boating, fishing, charters, scuba diving and parasailing pastimes and related water industries that are a local way of life; and

WHEREAS, oil production will take years to develop and the promise of local jobs and increased revenues is highly speculative. Offshore drilling is not a viable long term solution to energy independence and economic development; and

WHEREAS, offshore oil drilling and its underwater components could have a direct adverse impact on valuable sand resources that will one day be utilized for the important beach nourishment of Anna Maria Island; and

WHEREAS, the possibility of offshore drilling presents a significant threat to the unique birds, fish and wildlife indigenous to southwest Florida. Our valuable marine environments and the wildlife could suffer serious, perhaps catastrophic and long-lasting harm if an accident occurs off the coast of Florida; and

WHEREAS, public beach access is important not only as major recreational and economic engine for Manatee County and the State of Florida, but also serves as an important free recreational resource. Some of the free public beach access provided on Anna Maria Island and on Longboat Key would be adversely impacted if the sand were to become polluted by the impacts of oil and gas drilling; and

WHEREAS, proposed or planned drilling operations in the Gulf of Mexico could impair, restrict or negatively impact the ability of the United States military, and specifically Eglin Air Force Base, Tyndall Air Force Base, Hurlburt Field, Duke Field or the NAS Pensacola assigned, tenant, remote and/or guest units, to fully utilize the existing Joint Gulf Range Complex (JGRC) airspace and surface waters for ongoing or planned aircraft test, weapons test and/or training missions.

NOW, THEREFORE BE IT RESOLVED by the Mayor and City Council of the City of Bradenton, Florida, declares its opposition to any legislative initiatives that facilitate oil and gas exploration in Florida waters.

APPROVED AND ADOPTED at a regular meeting of the City Council of the City of Bradenton, Florida, this 18th day of November, 2009.

Mayor

ATTEST:

City Clerk and Treasurer

APPROVED AS TO FORM:

City Attorney



STATE OF FLORIDA
COUNTY OF MANATEE
CITY OF BRADENTON

This is to certify that the foregoing is a true and correct copy of the document on file in the City Clerk's Office.

Witness my hand and official seal this 23rd day

of November, 2009.

City Clerk / Deputy City Clerk



City of Sanibel

800 Dunlop Road
Sanibel, Florida 33957-4096

www.mysanibel.com

AREA CODE - 239

| | |
|----------------------|----------|
| CITY COUNCIL | 472-4135 |
| ADMINISTRATIVE | 472-3700 |
| BUILDING | 472-4555 |
| EMERGENCY MANAGEMENT | 472-3111 |
| FINANCE | 472-9615 |
| LEGAL | 472-4359 |
| NATURAL RESOURCES | 472-3700 |
| RECREATION | 472-0345 |
| PLANNING | 472-4136 |
| POLICE | 472-3111 |
| PUBLIC WORKS | 472-6397 |

February 05, 2010

Dear Appointed and Elected Official,

Florida's number one industry, tourism, is dependent on pristine beaches and estuaries. Currently our legislators are laying the foundation to permit near-shore oil and natural gas drilling in the Gulf of Mexico. There is no reasonable assurance that catastrophic damage would not result from a spill if drilling in the Gulf is permitted by our State legislators.

Our best opportunity to protect our local economies from the destruction that could result from drilling in the Gulf is to speak to our State legislators with one voice on this issue. We call on you as a local appointed/elected official to join the forces to defeat this proposal.

We are requesting you consider:

- Adopting a local resolution opposing oil and gas drilling in the Gulf of Mexico
- Transmitting your local resolution to your State legislative delegation
- Educating your citizens on this topic

We have enclosed a copy of Sanibel City Council Resolution 10-010, adopted on February 2, 2010, that may be useful to you as a template.

Thank you for your attention to this very important matter that will impact us all. If you have any questions on this matter please do not hesitate to contact me at 239-472-3700 to discuss the matter further.

Sincerely yours,

Mick Denham
Sanibel Mayor

Enclosure

Cc: Sanibel City Council

Judith A. Zimomra, City Manager
Kenneth B. Cuyler, City Attorney

CITY OF SANIBEL

RESOLUTION 10-010

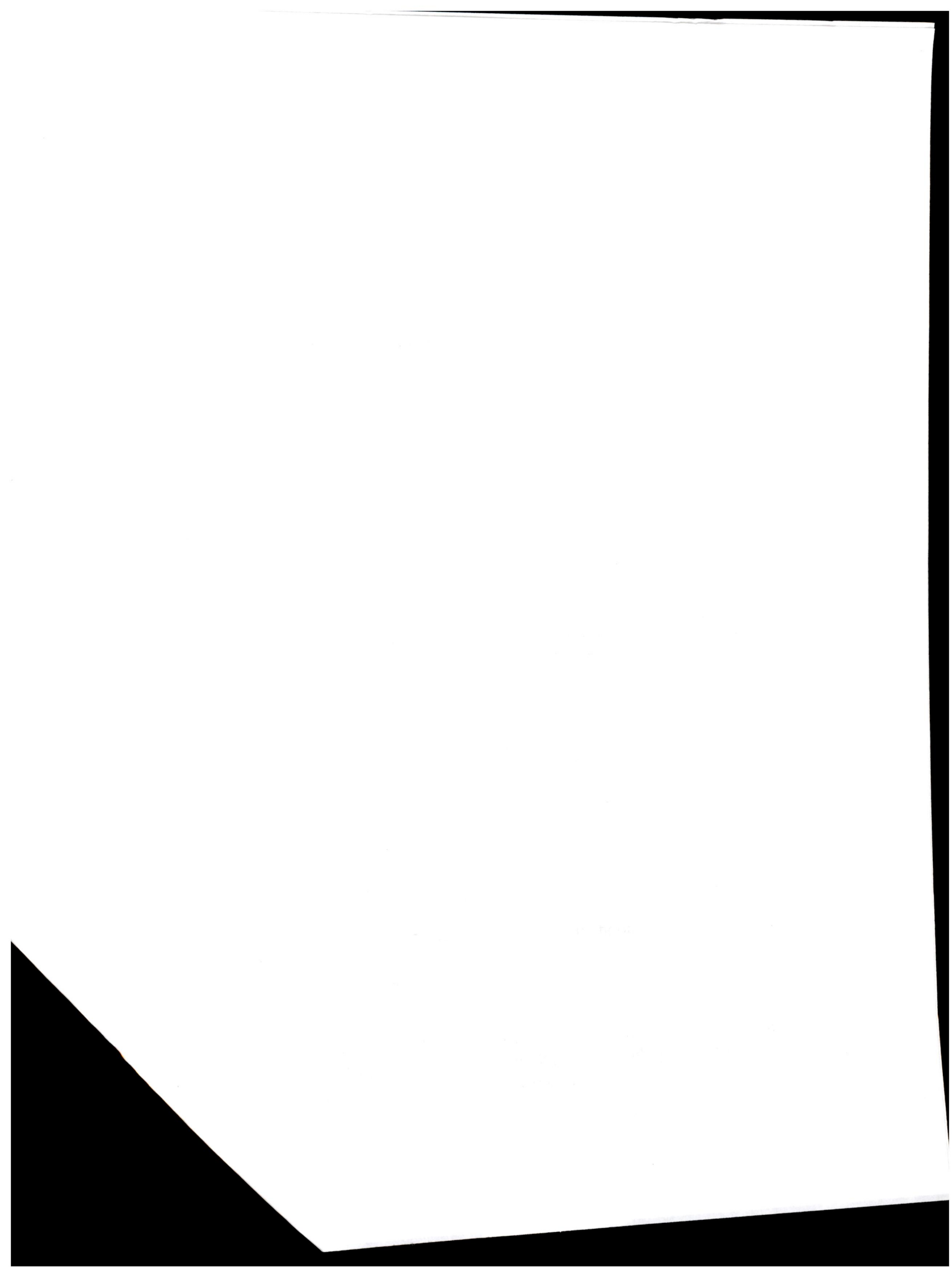
**OF THE CITY OF SANIBEL OPPOSING OFFSHORE OIL
S DRILLING IN THE EASTERN GULF OF MEXICO AND
POSING ANY FUTURE LEGISLATION WHICH WOULD
ORE DRILLING FROM THREE TO NINE MILES OFF OF
FLORIDA COAST; URGING FLORIDA LEGISLATIVE
REPRESENTATIVES TO REFRAIN FROM ANY FORM OF SUPPORT OR CO-
SPONSORSHIP OF ANY SUCH FUTURE LEGISLATION AND TO VOTE IN
OPPOSITION OF SUCH LEGISLATION; REQUESTING GOVERNOR CRIST
TO ADVISE THE HOUSE AND SENATE LEADERSHIP DURING THE 2010
REGULAR SESSION THAT HE DOES NOT SUPPORT ANY SUCH FUTURE
LEGISLATION; AND PROVIDING AN EFFECTIVE DATE.**

WHEREAS, the City of Sanibel is opposed to offshore and near-shore drilling in the eastern Gulf of Mexico; and

WHEREAS, there is on-going discussion and concern that the Florida State Legislature may, during the upcoming legislative session, consider legislation which would specifically allow near-shore oil and natural gas drilling from three to nine miles off the west coast of Florida from the Apalachicola area in the Florida Panhandle south to the area of Key West; and

WHEREAS, the City of Sanibel is an island community located on the west coast of Florida and the potential damage to Sanibel's beaches and mangrove coastline should a spill or accident occur would not only be devastating to the tourism, environment, plant and fish life of Florida's west coast, but the cleanup costs of such spill or accident would be disastrous to the City of Sanibel; and

WHEREAS, Sanibel Island cherishes its pristine beaches that are critical for marine turtle nesting and shore bird nesting including that of threatened species such as the Snowy Plover and Least Tern; and





TOWN OF LONGBOAT KEY

Incorporated November 14, 1955

Town Hall
501 Bay Isles Road
Longboat Key, Florida 34228-3196
(941) 316-1999
SUNCOM 516-2760
Fax (941) 316-1656
www.longboatkey.org

October 14, 2009

Dear Colleague,

Earlier this year there was a movement in the State Legislature to allow oil and gas drilling three to nine miles off the coast of Florida. Later in what was probably an astute political maneuver the entire East Coast and the Panhandle were taken off the table. This left only the West coast of Florida to fight this battle.

As the Mayor of a Gulf coast barrier island community I am asking for your help and support in opposing this offshore oil drilling initiative. We need to demonstrate that a "divide and conquer" approach will not work in trying to push something through local governments in this State.

I am asking for your support because offshore drilling is not necessary and not essential to our economy. I am asking for your help because your community is not directly impacted and those supporting this measure assume you will not become actively involved.

I hope they are wrong. I have attached a copy of a draft resolution I am asking you to present to your council or commission for adoption. If approved, I ask that you send it to your local legislative delegation to let them know that we will stand together. In return I pledge to you that if your community is ever faced with a similar situation, you will have our support.

If your council or commission does decide to take action, I ask that you send us a copy of your resolution.

If you have a staff member that will be studying the issue we will be pleased to provide them with information. Our Town Manager will also visit your council if you would like to have a better understanding of our position.

Thank you for your consideration and please don't hesitate to contact me or our Town Manager if you have any questions.

My best regards,

Lee Rothenberg,
Mayor

Trish Granger

From: nicholas.azzara@mymanatee.org
Sent: Friday, April 09, 2010 1:05 PM
To: Bruce St Denis; Susan Phillips; Trish Granger; Robert Siekmann
Subject: Res. 10-065 Off-shore oil drilling.doc
Attachments: Res. 10-065 Off-shore oil drilling.doc

OSA COPY

All,

Attached is the draft resolution the Manatee Board of County Commissioners will consider Tuesday regarding offshore oil drilling in federal waters. I'm forwarding copies to each municipality, per this week's Council of Governments meeting discussion.

Please let me know if you need anything else.

Nick

Nicholas Azzara
Manatee County Information Outreach Coordinator
Phone: 941.745.3771
Fax: 941.745.3790
1112 Manatee Ave. W., Suite 920
Bradenton, FL 34205
www.mymanatee.org

9:00

2010 APR 12 PM 8:28
10/11/10 12:00 PM
10/11/10 12:00 PM

RESOLUTION NO. 10-065

DRAFT APRIL 9, 2010

A RESOLUTION OF THE BOARD OF COUNTY COMMISSIONERS OF MANATEE COUNTY, FLORIDA REGARDING OFF-SHORE OIL AND GAS DRILLING IN STATE FEDERAL WATERS IN THE GULF OF MEXICO; STATING THE POSITION OF THE BOARD OF COUNTY COMMISSIONERS AS BEING AGAINST ALL OIL AND GAS DRILLING IN STATE WATERS IN THE GULF OF MEXICO; AND SETTING FORTH FINDINGS.

WHEREAS, the Legislature of the State of Florida has under consideration proposals Memorials 563 and 1726 urging the United States Congress to support expiration and removal of moratoria prohibiting exploration and production of oil and natural gas in federal waters surrounding Florida, and to include Florida in revenue sharing resulting from production of oil and natural gas in federal waters surrounding Florida which would permit the installation of rigs, pipelines and related infrastructure to enable drilling for either oil or natural gas near the beaches and in the shallow waters of the Gulf of Mexico and other areas off the Florida coastline within State waters; and

WHEREAS, specifically, the Island of Anna Maria, Coquina Public Beach, the City of Bradenton Beach, Manatee County Public Beach, the City of Holmes Beach, the City of Anna Maria, Bayfront Park, Bean Point, Bradenton Beach City Pier and portions of the beaches of Long Boat Key are within Manatee County; and
↳ corrected 5

WHEREAS, the unique location of the above-described beaches in close proximity to each other increase the probability these beaches will bear a disproportionate burden of the environmental damage and cost of clean-up from oil spills and related accidents caused by oil drilling were it to occur in State and Federal Waters and specifically within the formation known as the Tampa-Sarasota Arch; and,

WHEREAS, all of these public parks provide public access to the beach which is a unique characteristic within the State of Florida given the high population growth rate the State has experienced along its coastal shores; and

WHEREAS, public beach access is important not only as major recreational and economic engine for Manatee County and the State of Florida, but also serves as an important free recreational resource; and

WHEREAS, some of the free public beach access provided on Anna Maria Island would be adversely impacted if the sand were to become polluted by the impacts of oil and gas drilling; and

WHEREAS, the State of Florida's Comprehensive Plan in the Coastal Marine Resources Element provides that a policy is to: "Encourage land and water uses which are compatible with the protection of sensitive coastal resources." Additionally, the State Comprehensive Plan provides as a policy: "Avoid the exploration and development of mineral resources which threaten marine aquatic estuarine resources." (Section 187.201(8)(b)6&8 F.S.); and

WHEREAS, the Board of County Commissioners finds that beach quality sand that is suitable for marine turtle nesting, sea turtle habitats and the nesting of shore birds is essential to the Island communities of Anna Maria Island, Holmes Beach and Bradenton Beach, and

WHEREAS, the Manatee County Comprehensive Plan, Coastal Element, provides that a policy is to: "Minimize the disturbance of natural shoreline resources that provide shoreline stabilization and protect landward areas from the effects of storm events." (Policy 4.4.2.5); and,

WHEREAS, the impact to the sand resources of Manatee County critical to the beaches of Anna Maria Island, Holmes Beach and Bradenton Beach need to be addressed in the context of the above cited goals and policies of the State of Florida and Manatee County Comprehensive Plans with respect to the cumulative impacts of off-shore oil and gas drilling within State and Federal Waters; and

WHEREAS, the regional impact to public safety warrants not allowing oil and gas drilling in State and Federal waters, with particular reference to the existing military installations which conduct training missions in the vicinity of the waters of the Gulf of Mexico in Northwest Florida; and,

WHEREAS, the location of viable pipeline route alternatives to service the oil or gas drilling platforms could have an impact direct or cumulative to the beach compatible mineral resources utilized for the beach nourishment of Anna Maria Island by the Manatee County Shore Protection Program over which the oil or gas drilling infrastructure would be constructed; and

WHEREAS, there has been no analysis specific to Southwest Florida as to the cumulative impact to the benthic habitat along any proposed pipeline route as a result of numerous pipelines constructed to serve off-shore oil or gas drilling; and

WHEREAS, there has been no specific data on ambient underwater sound levels in the area within State and Federal waters proposed for off-shore oil and gas platform construction and pipeline routes; and

WHEREAS, the Board of County Commissioners finds that marine mammals and many fishes are highly dependent on sound for communication, navigation, foraging and predatory avoidance and a long-term cumulative impact of the noise from off-shore oil drilling on these mammals and fishes have not been adequately analyzed; and

WHEREAS, hard bottom and sea grasses serve as high-quality habitat for a variety of commercially and recreational important fish species; and

WHEREAS, the Terra Ceia Aquatic Preserve has been established by State Legislation and the aquatic preserves are defined in Section 258.37, F.S., as exceptional areas of submerged lands and its associated waters set aside for being maintained essentially in its natural or existing conditions; and

WHEREAS, the negative impacts of potential oil and gas drilling within the Gulf of Mexico in State and Federal waters in close proximity to aquatic preserves would disproportionately impact the Terra Ceia Aquatic Preserve within Manatee County.

NOW THEREFORE, BE IT RESOLVED by the Board of County Commissioners of Manatee County, Florida:

Section 1. The above findings contained the preamble of this resolution are hereby adopted as findings by the Board of County Commissioners.

Section 2. The Board of County Commissioners hereby states its opposition to any allowance of off-shore oil and gas drilling with the State of Florida and Federal waters in the Gulf of Mexico.

Section 3. The Board of County Commissioners finds that the following issues warrant further study and analysis prior to allowing off-shore oil and gas drilling within State waters:

A. An assessment panel (i.e. "honest brokers") would need to be established to provide an impartial analysis of the risks to coastal communities associated with allowing off-shore oil and gas drilling within State and Federal waters.

B. A marine based comprehensive management plan is critical and should be prepared prior to consideration of any off-shore oil drilling in State and Federal waters to identify valuable environmental resources as to location and type and how they would potentially be impacted by off-shore oil and gas drilling infrastructure and related pipelines.

C. An analysis needs to be performed as to the performance security or insurance policy that would be required to be provided by any entity performing oil or gas drilling in State and Federal waters in the Gulf of Mexico to guarantee a source of funds to pay for the environmental damage from oil spills or other related infrastructure accidents or occurrences.

PASSED AND DULY ADOPTED, with a quorum present and voting, by the Board of County Commissioners of Manatee County, Florida, this ____ day of _____, 20092010.

**BOARD OF COUNTY COMMISSIONERS
OF MANATEE COUNTY, FLORIDA**

By: _____
Dr. Gwendolyn Y. BrownDonna
Hayes, Chairman

ATTEST: R.B. SHORE
Clerk of the Circuit Court

By: _____
Deputy Clerk

Trish Granger

From: Gail Loeffler [Gail.Loeffler@sarasotagov.com]
Sent: Monday, April 12, 2010 9:10 AM
To: ammayor@cityofannamaria.com; azirkelbach@palmettofl.org; Carolyn Mason (cmason@scgov.net); City of Holmes Beach; ed.hunzeker@mymanatee.org; John Moore; mayor@palmettofl.org; Michael Pierce (info@cityofbradentonbeach.com); Pamela Nadalini; Patrick Roff (patrick.roff@cityofbradenton.com); Richard Clapp; Robert Siekmann; Tom Jones (tjones@cityofnorthport.com); Vanessa Carusone (vcarusone@cityofnorthport.com)
Subject: PLEASE REVIEW: Letter to Legislature Re: Drilling
Attachments: Letter to Legislature.docx

In the Manasota League of Cities meeting on March 11, Mayor Clapp proposed writing a letter to each member of the Florida Legislature expressing concerns about oil drilling in the Gulf of Mexico off the Florida coastline. Attached is a letter he has drafted for your review.

If you have any comments or suggestions, please let me know by noon on Thursday, April 15.

Thank you for your assistance.

Gail Loeffler

Manasota League of Cities
c/o City of Sarasota
Office of the City Auditor and Clerk
1565 1st Street
Sarasota, FL 34236

(941) 954-4160

Fax: (941) 954-4113

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2010 APR 13 PM 9:12
TO: GAIL LEOFFLER
FROM: TRISH GRANGER

April 9, 2010

The Honorable
Florida Senate

Tallahassee, FL 32399

Dear Senator :

The members of the ManaSota League of Cities would like to make sure that you understand our great concern over the possibility of oil and gas drilling within Florida State waters (within 9 nautical miles of our beaches).

In Manatee and Sarasota counties we have a significant economic reliance on tourism. Many jobs are dependent upon a healthy tourism economy. In 2008, visitors to Sarasota County directly spent \$1,052,438,400, which represents 17.8% of all taxable sales. In Manatee County the total economic impact of visitors in 2009 was \$696,174,124.

While technology has improved the safety of the drilling and transporting of petroleum products, we believe there is still significant risk that a catastrophic spill would produce long lasting negative effects on our tourism activity, as well as that of the entire state. A recent study by the Florida House of Representatives provided evidence that there is risk in the oil and gas drilling and transportation activities. Evidence was also presented showing that potential oil and gas deposits within Florida's Gulf Coast waters are minimal at best. We thus have great concerns over the risk/reward potential for this proposed endeavor.

We would point out that in 1993, several tankers collided in Gulf waters off Pinellas County. The resulting oil spill, while small in volume, had a significant negative impact on Pinellas County's tourism economy for the next two years.

Many of our visitors to Florida know little about our state geography and tend to view Florida as a single place. We believe that an oil catastrophe in the Gulf would have significant statewide negative economic impact as travelers and vacationers have many options for their free time. We need these tourists, and do not want to risk their loss. In today's economic times we have decreasing revenues because of the loss of construction and related services. A loss of tourism would devastate not only our local economies, but the State economy and budget as well. Our belief is that this is a very high risk proposal and Florida has little to gain by taking the risk.

We would ask you to be extremely cautious with any proposal to allow oil and gas drilling in Florida waters. Please make sure you ask the tough questions about the risk to our tourism economy.

Please put this proposal aside and continue with our present policy of not allowing oil and gas drilling in Florida State waters. The many, many, employees working in the tourism business and their local economies will benefit from this decision.

Thank you,

Richard Clapp
President



TOWN OF LONGBOAT KEY

Incorporated November 14, 1955

Town Hall
501 Bay Isles Road
Longboat Key, Florida 34228-3196
(941) 316-1999
SUNCOM 516-2760
Fax (941) 316-1656
www.longboatkey.org

October 6, 2009

Gwendolyn Brown, Chair
Manatee County Board of County Commissioners
P. O. Box 1000
Bradenton, FL 34205-1000

Dear Chair Brown,

This year's Annual Florida Shore & Beach Preservation Association Conference focused a great deal on the possibility and impacts of oil drilling off the West Coast of Florida.

Several speakers, including U.S. Senator Bill Nelson suggested that local communities forward resolutions to the State Legislature indicating their position on oil drilling in State waters which extend from 3 to 9 miles off the shore.

Of interest, is a formation called the Tampa-Sarasota Arch that includes the Northern portion of Longboat Key. Two other areas include the "Charlotte High" and the "Lee-Collier Swell". These are discussed in the attached 1995 USGS National Oil and Gas Play-Based Assessment of the South Florida Basin, Florida Peninsula Province. There is also other significant information available on the internet.

At the October 5, 2009 Regular Meeting the Town of Longboat Key Town Commission passed Resolution 2009-41, Opposing Oil Drilling in the Gulf of Mexico off the West Coast of Florida. A copy of Resolution 2009-41 is attached for your reference.

The Town Commission also reached consensus to sign a letter presented at the September 29, 2009 Sarasota County Convocation of Governments expressing opposition to oil drilling which includes a signature page for individual City and County elected officials. A copy of that letter is also attached.

Please don't hesitate to contact me if you have any questions.

My best regards,

Lee Rothenberg,
Mayor

RESOLUTION 2009-41

A RESOLUTION OF THE TOWN OF LONGBOAT KEY, FLORIDA, OPPOSING THE APPROVAL FOR EXPANSION OF OFFSHORE DRILLING IN THE GULF OF MEXICO IN AREAS OTHER THAN THOSE ALREADY APPROVED FOR OIL LEASING AND EXPLORATION; PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Gulf of Mexico Energy Security Act, adopted by Congress in 2006, prohibits drilling in the part of the Eastern Planning Area of the Gulf of Mexico Outer Continental Shelf Region lying within 125 miles of Florida's coastline, and in a portion of the Central Planning Area of the Gulf of Mexico Outer Continental Shelf Region, until June 30, 2002; and

WHEREAS, the U.S. Energy Department's forecasting arm has said opening the Pacific, Atlantic, and eastern Gulf of Mexico regions to drilling would not have a significant impact on domestic crude oil prices before the year 2030; and

WHEREAS, in 2009, House Bill 1219 was introduced in the Legislature of the State of Florida which would allow drilling for oil and gas from between three to nine miles off the West coast of Florida's coastline (mean high tide line) from the Apalachicola area to the Key West area; and

WHEREAS, tourism accounts for one-third of budget revenues statewide and 96% of those visitors cite the beaches as an influential factor in their decision to visit Florida; and

WHEREAS, resort tax collection statewide exceeded 25 million dollars in Fiscal Year 2007 and almost 86 thousand Floridians are employed in businesses that directly or indirectly support tourism; and

WHEREAS, the area with the potential for the greatest risk of environmental damage is the eastern part of the Gulf of Mexico, off the western coast of Florida; and

WHEREAS, according to Oil Industry data, an oil rig in the Gulf of Mexico can dump up to 90,000 tons of drilling fluid and metal cuttings over its lifetime. These contaminants accumulate in the marine food web and may contaminate local beaches and have a negative effect on the environment and the tourism industry; and

WHEREAS, it is our belief that despite technological advances in oil rig drilling technology, there are no positive assurances that catastrophic damage to our coastline, beaches, and plant and fish life could be avoided during normal operating conditions or during storm situations; and

NOW, THEREFORE, be it resolved by the Town Commission of the Town of Longboat Key, Florida, that:

SECTION 1. The above Whereas clauses are true and correct and are hereby ratified and confirmed.

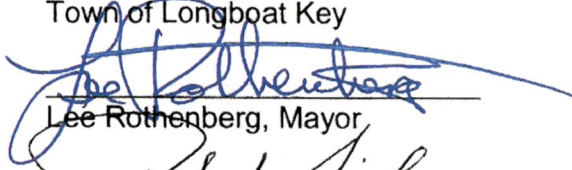
SECTION 2. The Town of Longboat Key, Florida encourages all elected officials at the County, State, and Federal levels to oppose legislative attempts to allow offshore oil drilling expansion past the areas already approved for pre-leasing, leasing, and oil production activities.

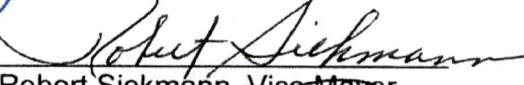
SECTION 3. That before any expansion past the areas already approved for leasing and oil production activities is considered, the existing leases must be exercised and utilized where found to be productive.

SECTION 4. Effective Date. This Resolution shall become effective immediately upon adoption.

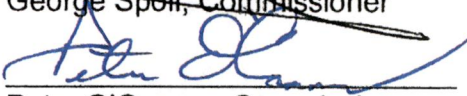
Passed by the Town Commission of the Town of Longboat Key on this 5th day of October, 2009.

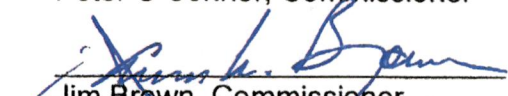
Town of Longboat Key

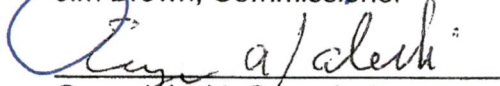

Lee Rothenberg, Mayor

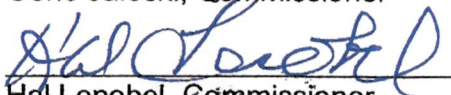

Robert Siekmann, Vice Mayor


George Spill, Commissioner

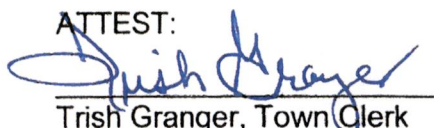

Peter O'Connor, Commissioner

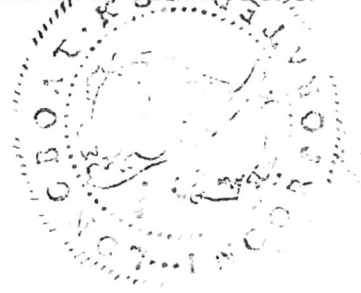

Jim Brown, Commissioner


Gene Jaleski, Commissioner


Hal Lenobel, Commissioner

ATTEST:


Trish Granger, Town Clerk





Sarasota County



City of Sarasota



City of Venice



Town of Longboat Key



City of North Port

October 9, 2009

Subject: Prohibit Offshore Drilling in Florida Waters

Dear Members of the Sarasota County Legislative Delegation:

As elected public officials of Sarasota County, the City of North Port, the City of Sarasota, the City of Venice and the Town of Longboat Key, we want to express our unified strong opposition to legislation that would authorize offshore oil and gas drilling in Florida waters.

Elected local officials attending the convocation of governments on September 29, 2009, unanimously voted to urge the Legislature to prohibit offshore oil and gas drilling in the territorial waters of the state. This is a critical issue to our communities. We ask you to join us in opposing any initiatives designed to allow offshore drilling off the coast of Florida and to retain the current statutory ban on such drilling.

As coastal communities, Sarasota County and the municipalities within the county are extremely concerned about any activity that could impact the quality and health of our coast. We believe that offshore drilling will compromise the integrity of Florida waters. Our community identity, economy and culture are integrally linked and dependent on a healthy and attractive coastal environment. Our valuable marine environments and the wildlife could suffer serious, perhaps catastrophic, and long-lasting harm if an accident occurs off the coast of Florida. Impacts on tourism from spills could cripple our economy. The risks of drilling are too high for our communities and for the State of Florida.

We recognize that this issue generates a great deal of pressure given the current economic situation and the need to seek energy independence. Yet, oil production will take years to develop and the promise of local jobs and increased revenues is highly speculative. Offshore drilling is not a viable long term solution to energy independence and economic development.

We ask the members of the Sarasota County Legislative Delegation to officially oppose any legislative initiatives that facilitate oil and gas exploration off the coast of Florida. This legislation must be opposed to preserve our tourist economy, protect our clean beaches and shores, and ensure that our natural resources and coastal community character are retained.

We are unified in our strong opposition to any initiatives to allow offshore drilling in Florida waters. Please consider our concerns on this critical issue to the state and our community.

Sincerely,

Public Officials of Sarasota County and the Municipalities within the County
(see attached signatures)

Distribution:

Sarasota County Legislative Delegation

The Honorable Ron Reagan
Chair, Sarasota County Legislative Delegation
District 67, Florida House of Representatives

The Honorable Michael Bennett
District 21, Florida Senate

The Honorable Nancy Detert
District 23, Florida Senate

The Honorable Keith Fitzgerald
District 69, Florida House of Representatives

The Honorable Doug Holder
District 70, Florida House of Representatives

The Honorable Ken Roberson
District 71, Florida House of Representatives

The Honorable Darryl Rouson
District 55, Florida House of Representatives

cc.

The Honorable Charlie Crist, Governor
United States Congressman Vern Buchanan
United States Senator Bill Nelson
United States Senator George LeMeaux
The Honorable Jeff Atwater, President of the Florida Senate
The Honorable Larry Cretul, Speaker of the Florida House of Representatives
Florida Senate Environmental Preservation and Conservation Committee
Florida Senate Policy and Steering Committee on Energy, Environment and Land Use
Florida Senate Committee on Communications, Energy, and Public Utilities
Florida House Energy and Utilities Policy Committee
Florida House Agriculture and Natural Resources Committee
Florida House General Government Policy Council
Florida House Policy Council
United States House Energy and Commerce
United States House Natural Resources
United States Senate Environment and Public Works
United States Senate Energy and Natural Resources
United States Senate Finance



Sarasota County



City of Sarasota



Venice, Florida
"City on the Gulf"

City of Venice



Town of Longboat Key



City of North Port

Town of Longboat Key

Lee Rothenberg, Mayor

Robert Siekmann, Vice-Mayor

Jim Brown, Commissioner

George Spell, Commissioner

Peter O'Connor, Commissioner

Gene Jaleski, Commissioner

Hal Lenobel, Commissioner



Sarasota County



City of Sarasota



City of Venice



Town of Longboat Key



City of North Port

Sarasota Board of County Commissioners

Jon Thaxton, Chair

Joseph A. Barbetta, Vice Chair

Carolyn J. Mason, Commissioner

Shannon Staub, Commissioner

Nora Patterson, Commissioner



Sarasota County



City of Sarasota



City of Venice



Town of Longboat Key



City of North Port

City of North Port

Vanessa Carusone, Chairperson

David Garofalo, Commissioner

Tom Jones, Commissioner

Jim Blucher, Commissioner

Michael Treubert, Commissioner



Sarasota County



City of Sarasota



Venice, Florida
"City on the Gulf"

City of Venice



Town of Longboat Key



City of North Port

City of Sarasota

Richard Clapp, Mayor

Kelly Kirschner, Vice Mayor

Terry Turner, Commissioner

Fredd Atkins, Commissioner

Suzanne Atwell, Commissioner



Sarasota County



City of Sarasota



Venice, Florida
"City on the Gulf"

City of Venice



Town of Longboat Key



City of North Port

City of Venice

Ed Martin, Mayor

Sue Lang, Vice Mayor

Vicki Noren, Council Member

Ernie Zavodnyik, Council Member

John K. Moore, Council Member

Kit McKeon, Council Member

John Simmonds, Council Member

Chapter 2

1995 USGS National Oil and Gas Play-Based Assessment of the South Florida Basin, Florida Peninsula Province

By Richard M. Pollastro



Click here to return to
Volume Title Page

National Assessment of Oil and Gas Project:

Petroleum Systems and Assessment of the South Florida Basin

Compiled by Richard M. Pollastro *and* Christopher J. Schenk

U.S. Geological Survey Digital Data Series 69-A

U.S. Department of the Interior
U.S. Geological Survey

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Gale A. Norton, Secretary

U.S. Geological Survey
Charles G. Groat, Director

First printing November 2001

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Denver, CO 80225

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1995 USGS National Oil and Gas Play-Based Assessment of the South Florida Basin, Florida Peninsula Province

By Richard M. Pollastro

Overview

The Florida Peninsula, USGS Province 50, as defined by the 1995 USGS National Oil and Gas Assessment (Gautier and others, 1995), includes all of the State of Florida east of the Apalachicola River and the adjoining State waters; the part of the Florida panhandle west of the Apalachicola River is part of Province 49 (fig. 1). The boundary in the panhandle between Province 50 and Province 49 is a generally north-south-trending line between the counties of Gadsden, Liberty, and Franklin to the east and the counties of Jackson, Calhoun, and Gulf to the west. Province 50, inclusive of State waters, is approximately 150 mi wide and about 400 mi long totaling about 60,000 mi². It is bounded to the north by the State boundary with Georgia and to the east, south, and southwest by the boundaries of Florida State waters. The State water boundaries extend to 10.36 statute miles on the Gulf of Mexico side of Florida and to 3 miles on the Atlantic Ocean side (the Gulf-Atlantic boundary line extends westward from the Marquesas Keys along lat 24°35'N., and then turns southward, just west of the Dry Tortugas, along the 83rd west meridian) (fig. 1).

Six conventional hydrocarbon plays were delineated in the South Florida Basin of Province 50 (fig. 2) for the purposes of the 1995 USGS National Oil and Gas Assessment (Gautier and others, 1995; Pollastro and Viger, 1998). The Upper Sunniland Tidal Shoal Oil play (5001) and the Lower Sunniland Fractured "Dark Carbonate" Oil play (5002) are confirmed plays. At the time of the 1995 National Oil and Gas Assessment, about 103 million barrels of oil (MMBO) had been produced from these known plays.

The remaining four plays in the 1995 assessment are hypothetical. They are the Dollar Bay Shoal-Reef Dolomite Oil play (5003), the Lower Cretaceous Carbonate Composite Oil play (5004), the Extended Upper Sunniland Tidal Shoal Oil play (5005), and the Wood River Dolomite Deep Gas play (5006). The easternmost portion of the Smackover Alabama/Florida Updip Oil play (4911) also extends into the Florida Peninsula Province but has been assigned to the Louisiana-Mississippi Salt Basins Province 49; therefore, this play is not

shown or defined in this report.

About 370 MMB of undiscovered oil were estimated in the assessment using a play-based methodology from the five plays of the South Florida Basin; an additional 57.5 billion cubic feet of gas (BCFG) or 10 million barrels of oil equivalent (MMBOE) were estimated as gas in oil fields (table 1). Most of the 370 MMBO was from the Lower Cretaceous Sunniland Formation with the two Upper Sunniland Tidal Shoal Oil plays (5001, 5005) estimated to contain 281 million barrels of undiscovered oil.

In 2000, the South Florida Basin was again assessed using the total-petroleum-system method, an approach to assessment of undiscovered oil and gas outlined in detail by the U.S. Geological Survey World Energy Assessment Team (2000). In the total-petroleum-system method, the assessment unit (a subset of the total petroleum system) is used rather than the play as the basic unit to assess the volume of undiscovered oil and gas. The results of the 2000 USGS assessment of the South Florida Basin using the total petroleum system are described in an accompanying report on this CD-ROM.

Hydrocarbon Play Descriptions

Play 5001—Upper Sunniland Tidal Shoal Oil Play

Known only in the subsurface, the Lower Cretaceous Sunniland Formation is the basal unit of the Ocean Reef Group (fig. 2). Onshore, the formation is relatively uniform in thickness and consists of limestone, dolomite, and anhydrite. The upper part of the Sunniland Formation produces heavy, marginally mature varieties of crude oil onshore from porous bioclastic debris mounds, banks, and pods on the eastern margin of the South Florida Basin. The region of productive reservoir facies of the upper Sunniland Formation is defined in part by eight fields that have either produced more than one million barrels of oil (MMBO), or have estimated ultimate recoveries

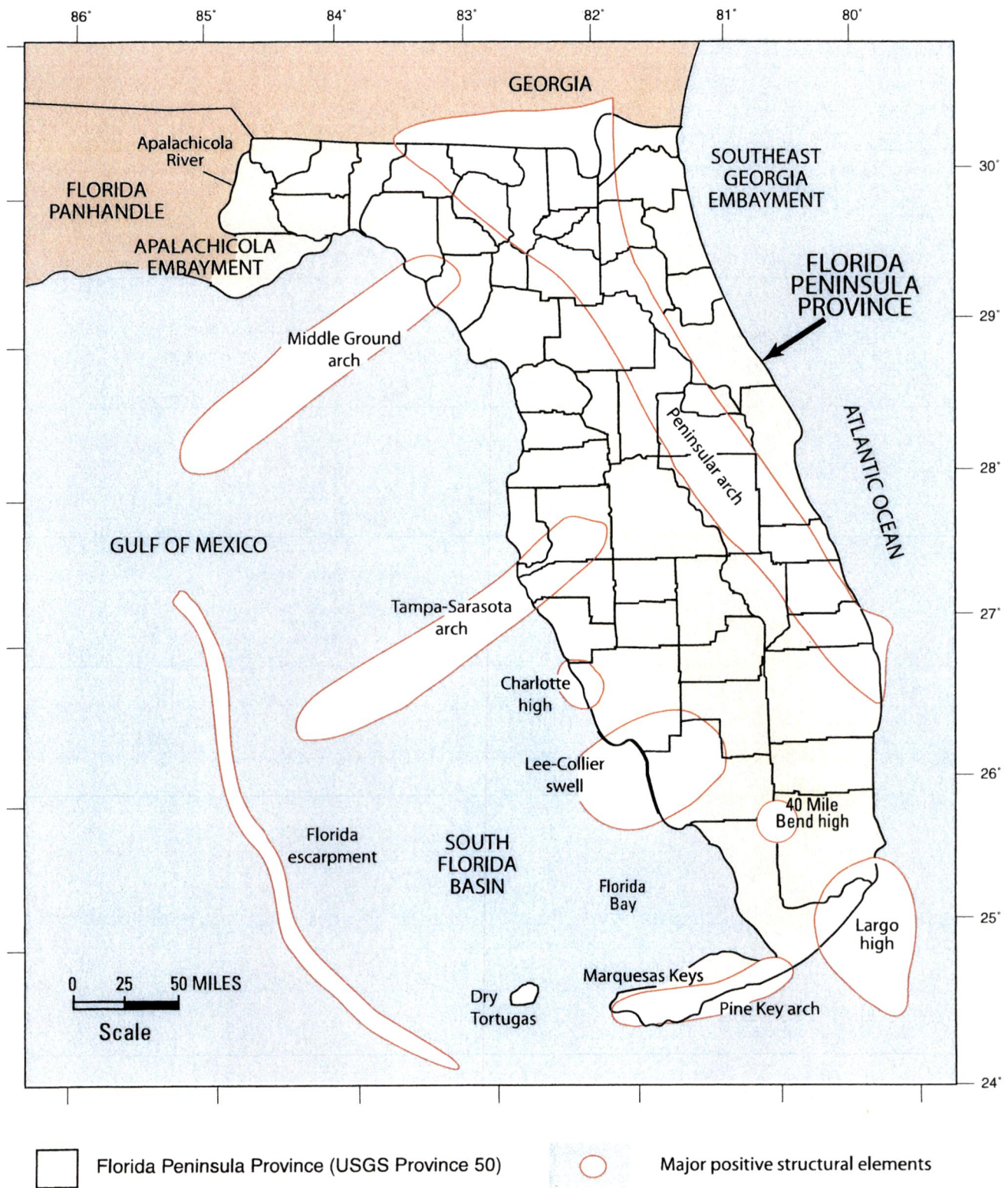


Figure 1. Map showing Florida Peninsula Province (USGS Province 50) and major positive structural elements of the South Florida Basin.

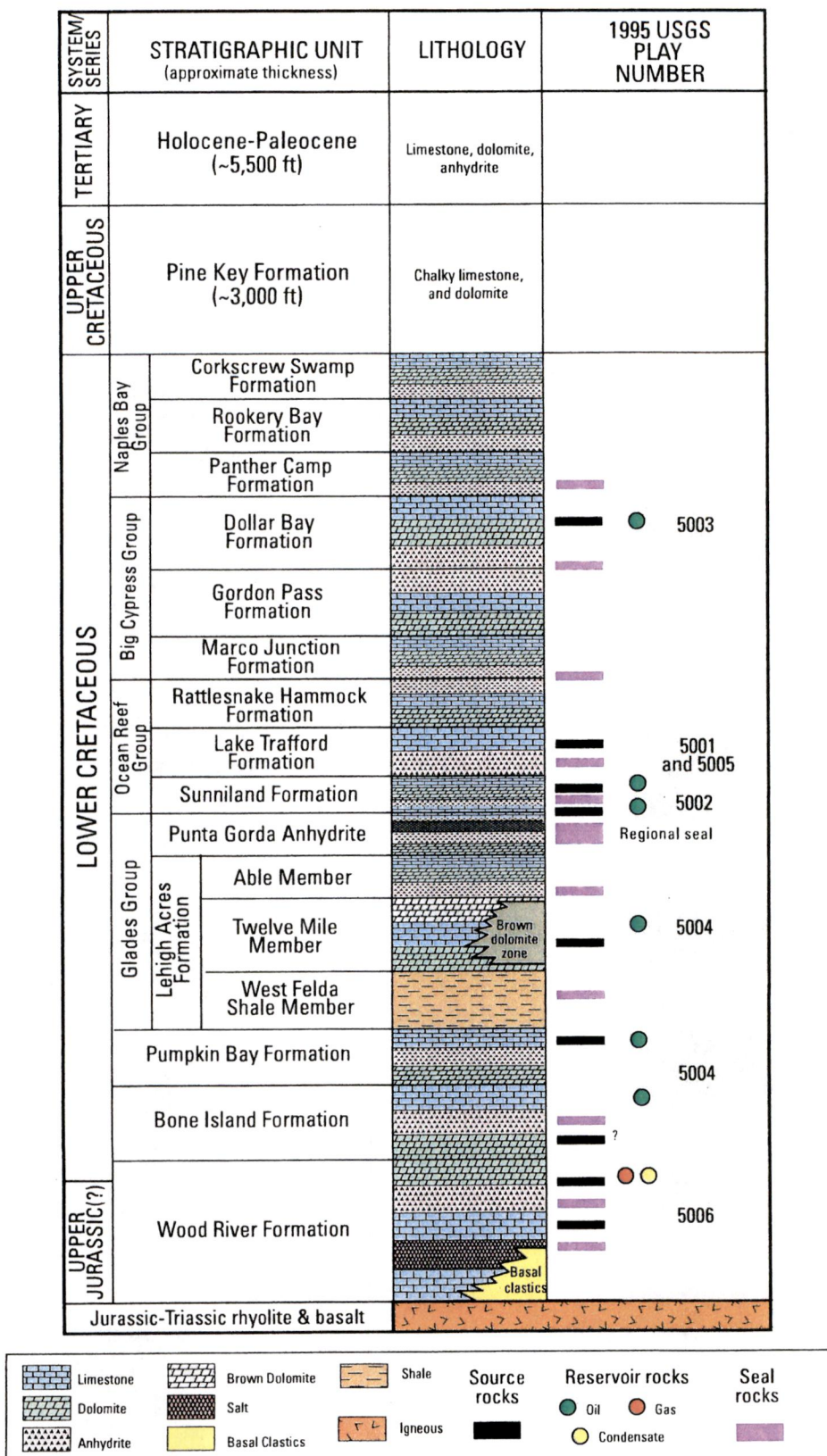


Figure 2. Stratigraphic section of South Florida Basin along Sunniland trend showing 1995 USGS plays. Modified from Faulkner and Applegate (1986).

Table 1. Summary of results of 1995 National Oil and Gas Assessment of undiscovered oil and gas by play, Florida Peninsula Province.

[Play 5006 was highly risked and, thus, not assessed. MMBO, million barrels of oil; BCFG, billion cubic feet of gas]

Size of undiscovered accumulations (MMBO)

| Play number | 5001 | 5002 | 5003 | 5004 | 5005 |
|------------------------|-------------|------------|-------------|------------|------------|
| Median | 15 | 2 | 10 | 2 | 4 |
| F ₅ largest | 110 | 8 | 65 | 20 | 25 |
| Mean | 22.4 | 2.5 | 13.9 | 3.1 | 6.6 |

Number of undiscovered accumulations

| Play number | 5001 | 5002 | 5003 | 5004 | 5005 |
|-------------|-------------|------------|------------|------------|------------|
| Minimum | 2 | 1 | 1 | 1 | 1 |
| Median | 8 | 4 | 8 | 8 | 6 |
| Maximum | 30 | 20 | 40 | 20 | 30 |
| Mean | 11.3 | 4.8 | 4.8 | 3.4 | 4.9 |

Estimate of undiscovered oil in oil fields (MMBO)

| Play number | 5001 | 5002 | 5003 | 5004 | 5005 | TOTAL |
|-----------------|--------------|-------------|-------------|-------------|-------------|--------------|
| F ₉₅ | 20.6 | 0 | 0 | 0 | 0 | |
| F ₅₀ | 172.8 | 6.9 | 0 | 0 | 0 | |
| F ₅ | 594.9 | 42.8 | 387.5 | 50.3 | 129.7 | |
| Mean | 253.7 | 12.2 | 66.2 | 10.7 | 27.3 | 370.1 |

Estimate of undiscovered gas in oil fields (BCFG)

| Play number | 5001 | 5002 | 5003 | 5004 | 5005 | TOTAL |
|-----------------|--------------|-------------|-------------|--------------|--------------|-------------|
| F ₉₅ | 1.73 | 0 | 0 | 0 | 0 | |
| F ₅₀ | 14.52 | 0.58 | 0 | 0 | 0 | |
| F ₅ | 61.87 | 3.60 | 31.00 | 25.15 | 11.02 | |
| Mean | 21.30 | 1.00 | 5.30 | 15.30 | 14.59 | 57.5 |

(EUR) of at least 1 MMBO, and five additional smaller fields. When combined, these fields form an arcuate northwest-southeast trend, the "Sunniland trend," which is about 20 mi wide and 150 mi long (fig. 3). Generally, the updip limit of the Sunniland is about 50 to 60 miles northeast of the producing trend. The first upper Sunniland Formation oil field discovery was the Sunniland field in 1943; the largest oil field is the West Felda, discovered in 1966, with total production (through July 1993) of more than 44 MMBO. Cumulative production for all upper Sunniland Formation reservoirs through July 1993 was about 103 MMBO.

The northern and updip play boundary for the Upper Sunniland Tidal Shoal Oil play (5001) is delineated by an area in which the upper Sunniland Formation consists of only micritic limestone and contains no reservoir mounds within its intertidal lagoonal-mudflat facies. Moreover, the lower part of the Sunniland dark carbonate source rock is absent. The downdip southern boundary of the play is delineated by an area where wells penetrate an anhydrite-cemented, nonporous sabkha-like facies (fig. 3).

The reservoir facies in the upper Sunniland Formation consist of isolated fossil-shell hash (skeletal grainstones) that may represent storm deposition as shoals in a regionally restricted, back-reef lagoonal area in the warm, shallow marine-shelf setting of the eastern South Florida Basin during the late Early Cretaceous (Mitchell-Tapping, 1987). These tidal shoals were deposited on subtle bathymetric highs that were probably related to underlying basement structure. Later, the upper portions of these porous shoal mounds were subaerially exposed, leached, and dolomitized during a low sea-level stand, further enhancing the reservoir quality of the upper porous zones. Individual debris mounds are about 40 to 100 ft thick (Means, 1977; Montgomery, 1987). Depth to the upper Sunniland Formation tidal shoal reservoir rocks in the producing trend is about 11,200 to 11,600 ft. Most mounds are sealed by overlying impermeable lagoonal mudstones and wackestones, some of which have been dolomitized. Porosities of primary (interparticle) and secondary (dissolution and dolomitization) origin range from 10 to 25 percent and average 15 to 18 percent (Mitchell-Tapping, 1987). Impermeable micritic carbonate and nodular anhydrite beds within the upper Sunniland Formation enclose and seal many of the individual porous reservoir mounds. Moreover, the entire Sunniland Formation is sealed above and below by thick anhydrite units (fig. 2). Most hydrocarbon traps are stratigraphic; however, some mixed stratigraphic/structural traps are present.

The different types of crude oils produced from the grainstone units of the upper Sunniland Formation are immature, having API gravities that range from about 21° to 28° and average 25°–26°; the average gas-oil ratio (GOR) is about 85:1 (Palacas and others, 1984; Tootle, 1991). The source rocks are a dark, micritic carbonate unit (informally referred to as the "dark carbonate" interval) in the lower part of the Sunniland Formation. These micritic carbonates are commonly algal laminated and have total organic carbon (TOC) ranging from less than 0.4 to 3.0 weight percent. Potential source rocks

(as identified by more than 0.4 weight percent TOC) average 1.8 weight percent TOC. More than 80 percent of the organic matter in these source rocks is composed of algal-amorphous (oil-prone) kerogen (Palacas, 1984; Palacas and others, 1984). The hydrocarbon-generating potential of the lower Sunniland dark carbonate facies ranges from poor in wells located updip from the producing trend, to good in wells located just downdip, to excellent near the depocenter of the basin (Applegate and Pontigo, 1984). Onshore, the dark carbonate facies varies in thickness from zero at the updip limit of the Sunniland Formation to more than 150 ft in the producing trend. Oil produced from reservoirs in the Sunniland trend was probably generated downdip where the organic matter in the dark carbonate facies is more abundant and more mature. The petroleum then migrated updip and accumulated in the porous grainstone facies of the upper Sunniland (Palacas and others, 1984).

Exploration and development of the upper Sunniland Formation has been minimal based on the drilling history and well distribution within the play area. The eight oil fields in the upper Sunniland Formation that have produced, or have EUR's, more than 1 MMBO are Bear Island, Corkscrew, West Felda, Lehigh Park, Mid-Felda, Raccoon Point, Sunniland, and Sunoco-Felda. Historical data for these eight accumulations are plotted in figure 4 and figure 5 showing relations among known accumulation size, number of exploratory wells, date of discovery, and cumulative known volume. At least three of these eight fields are located in the Big Cypress Swamp drainage and (or) National Reserve, an area of critical environmental concern (Lloyd, 1992). Sensitive environmental and political issues in south Florida have likely discouraged full resource development; however, the success of wells drilled in the past few decades, indicate that the Upper Sunniland Tidal Shoal Oil play has good potential.

The 1995 USGS Assessment estimated undiscovered oil accumulations in the Upper Sunniland play along the main fairway trend (5001) to be of moderate size, having a median size of 15 MMBO and total undiscovered oil estimated at about 254 million barrels (table 1).

Play 5002—Lower Sunniland Fractured "Dark Carbonate" Oil Play

The existence of the Lower Sunniland Fractured "Dark Carbonate" Oil play is based on the discovery of the Lake Trafford field in Collier County. Lake Trafford field is located immediately southeast of Corkscrew field (fig. 6). The dark carbonate unit of the lower part of the Sunniland Formation is believed to contain the primary source beds for oil produced in the tidal shoal grainstone units of the upper part of the Sunniland Formation (plays 5001 and 5005). Although no minimum size (more than 1 MMBO) oil accumulations were proven, the one discovery well (Mobil Oil Corporation; spudded March 1969) used to define the Lake Trafford field

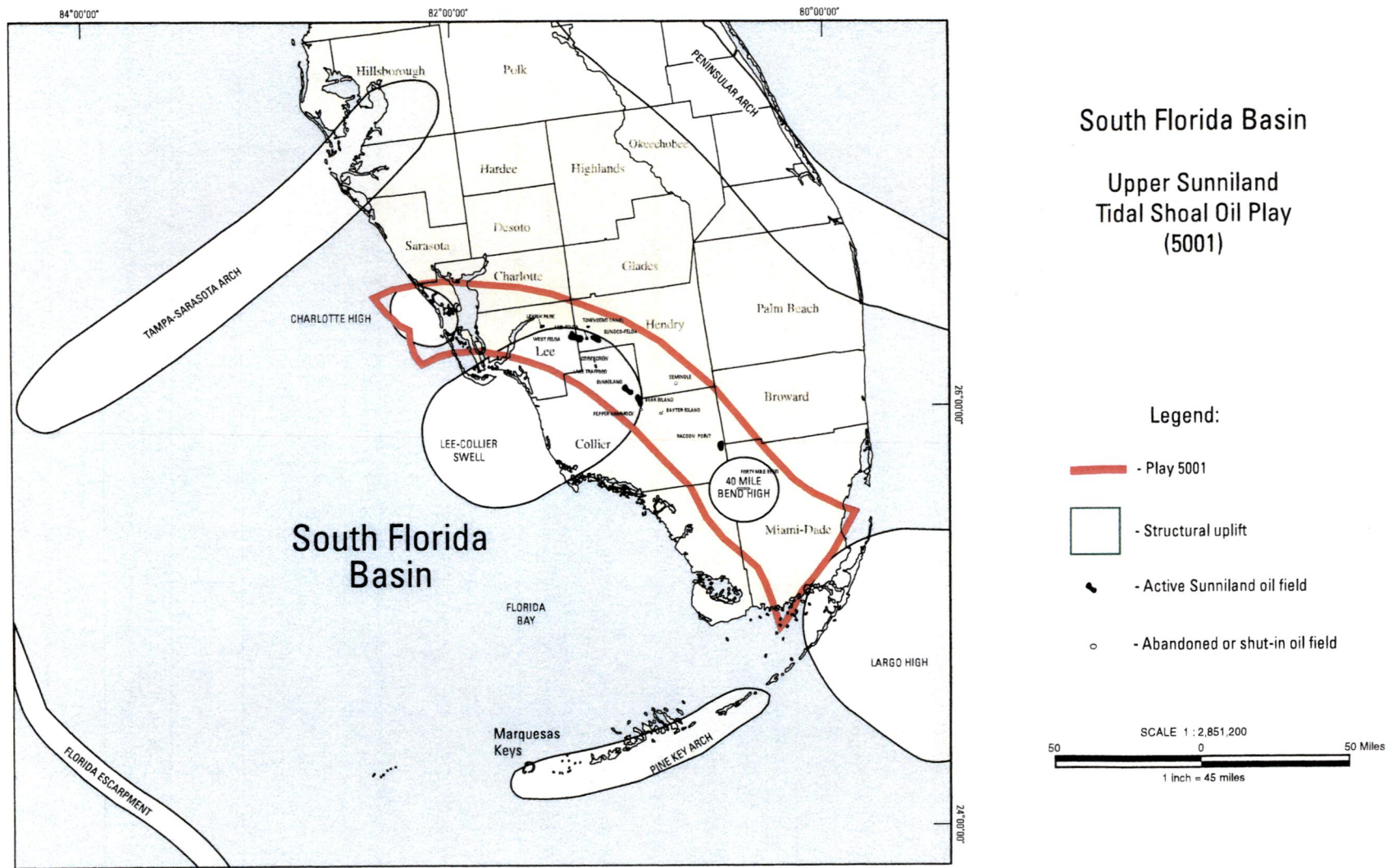


Figure 3. Map of South Florida Basin showing structural uplifts, known oil fields, and boundaries of Upper Sunniland Tidal Shoal Oil play (5001).

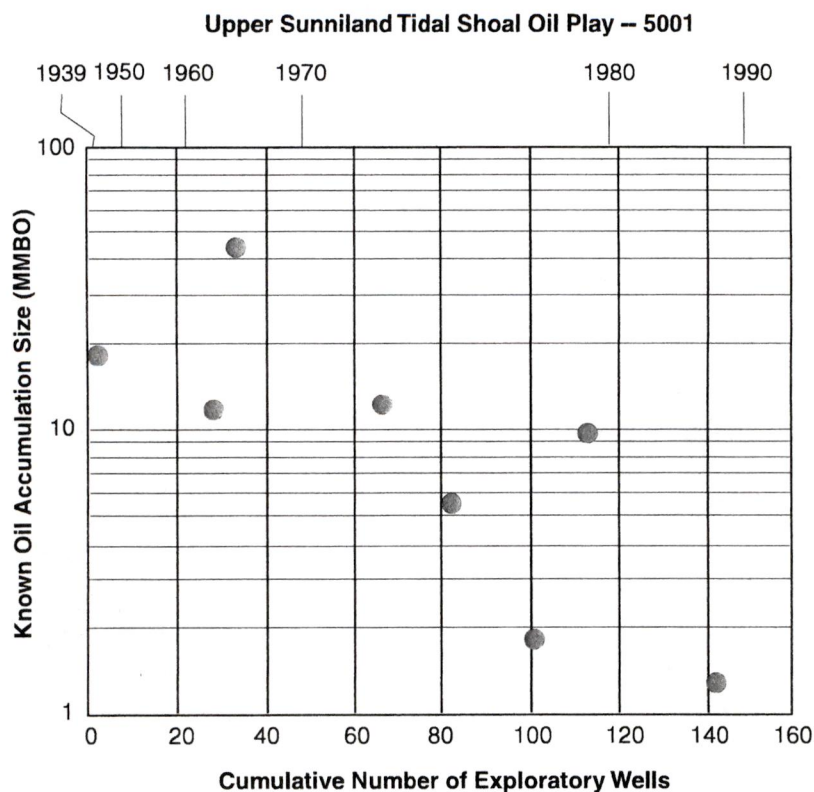


Figure 4. Historical plot for South Florida Basin exploration showing known oil accumulation size (>1 MMBO) versus cumulative number of exploratory wells and discovery year.

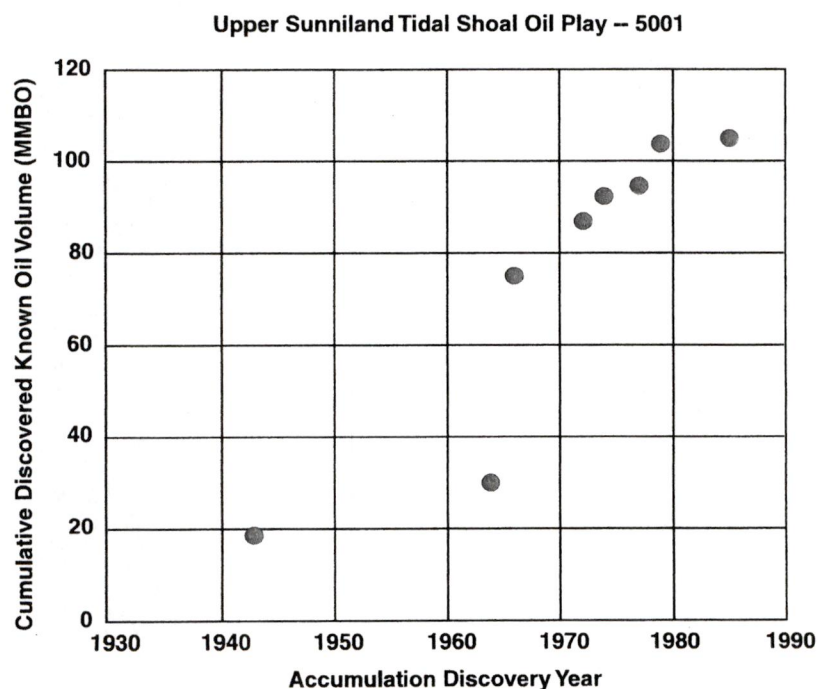


Figure 5. Historical plot for South Florida Basin exploration showing cumulative discovered known oil volume versus discovery year for accumulations >1 MMBO.

produced commercial quantities of oil from fractured limestone at a depth of about 11,800 ft. The producing zone is commonly referred to as the "rubble zone" of the dark carbonate unit in the lower Sunniland Formation (Means, 1977). The matrix porosity of the producing zone, as measured by well logs, is about 9 volume percent, and the pore space is oil saturated. Core recovered from the rubble zone in the discovery well was described as burrowed, fractured, and stylolitized (Lloyd, 1992); these characteristics would increase the porosity and permeability of the rocks, thus increasing the likelihood of commercial production from them. In March 1988, the discovery well was shut in after producing about 278,000 barrels of oil. Two offset vertical wells, located to the northwest and south of the producing well, and a recent horizontal test well were dry holes. Based on the production history of the one vertical well, horizontal wells penetrating the rubble zone of the dark carbonate unit are estimated to produce a few hundred barrels of oil per day. Owner/operator Brian Richter (oral commun., 1994) reported that the horizontal test well missed the targeted pay zone; however, subsequent successful horizontal tests have reopened the field.

The play boundary is defined by two factors: (1) the thickness of the dark carbonate unit, partly determined from the examination of cross sections and observations of structural isopachs (Applegate and Pontigo, 1984), and (2) evidence (in core recoveries from reference wells) (Lloyd, 1992; Mitchell-Tapping, 1984) of the presence of rocks that possess favorable source-rock characteristics and either the presence of the rubble zone or evidence of fracturing (Montgomery, 1987). This play is assigned moderate potential for undiscovered oil resources. The area of the play that has the best potential for undiscovered oil resources is northwest of the Lake Trafford field. Expected depths of production within the play area are estimated between 10,000 and 13,000 ft, with a median depth of about 11,800 ft. Potentially productive fractured reservoir rocks are present in the lower dark carbonate zone of the lower Sunniland Formation and are enclosed by impermeable, micritic, tidal-flat, lime mudstones. The unit is sealed below by the Punta Gorda Anhydrite.

Indigenous hydrocarbons are produced from brown and medium-dark-gray micritic and argillaceous limestones whose total carbonate content average 76 weight percent and range from 50 to 98 weight percent. These micritic carbonates are commonly algal laminated and have TOC values ranging from less than 0.4 to 3.0 weight percent. Potential source beds (more than 0.4 weight percent TOC) within the unit average about 1.8 weight percent TOC. Oil produced from the well in the Lake Trafford field has an API gravity of about 26°, similar to oil in upper Sunniland producing wells (API gravity ranging from 21° to 28°). Inasmuch as oils in the upper Sunniland Formation are derived from source rocks in the lower dark carbonate, the similarity in API gravities is to be expected. Similarly, lower Sunniland oils are expected to have a GOR range similar to that of upper Sunniland oils (about 80:1 to 100:1).

Median size for undiscovered fields of the dark carbonate play was estimated at 2.5 MMBO with a mean total undiscovered

oil resource estimated at 12.2 million barrels (table 1).

Play 5003—Dollar Bay Shoal-Reef Dolomite Oil Play

The delineation of the hypothetical Dollar Bay Shoal-Reef Dolomite Oil play (fig. 7) is based on (1) interpretations of well-log data obtained from a series of onshore wells reporting numerous shows (Winston, 1971) and (2) the paleoenvironmental reconstructions of Winston (1971) and Mitchell-Tapping (1990) of the reservoir tidal shoal and patch reef facies; the data of Faulkner and Applegate (1986) were also used to delineate this play.

In the onshore portion of the South Florida Basin, the youngest formation that shows characteristics favorable for petroleum generation and accumulation is the Lower Cretaceous Dollar Bay Formation, the uppermost unit of the Big Cypress Group (fig. 2). The unit lies 1,500 ft or more above the Sunniland Formation and is as much as 620 ft thick in some parts of the basin. Onshore, the unit ranges in thickness from about 475 ft to 550 ft. Many wells penetrating the Dollar Bay Formation in south Florida have reported low-gravity (about 17° API) oil shows or tarry residues in both limestone biohermal deposits and an upper dolomite section; however, there has been no commercial production from this play. Like the Sunniland Formation, the Dollar Bay commonly consists of evaporite-carbonate cycles of anhydrite, dolomite, and limestone. These evaporite-carbonate beds formed during a transgressive-regressive cycle; some thin beds of calcareous shale, salt, and lignite are also present (Applin and Applin, 1965; Mitchell-Tapping, 1990). In certain areas of the basin, however, limestone is the dominant lithology of the formation. Speculative production in the Dollar Bay Formation will be from leached limestone units in the middle part of the formation or from a dolomite section in the upper part of the formation.

Mitchell-Tapping (1990) stated that reservoirs exist in tidal shoal deposits and patch reefs in a tidal flat, lagoonal, restricted-marine setting, and in a subtidal platform, open-marine setting. Potential reservoirs include (1) porous, leached, and dolomitized grainstone units in the upper portions of isolated debris mounds, (2) isolated patch reefs in the middle part of the Dollar Bay Formation, and (3) a porous dolomite unit in the upper part of the formation (Mitchell-Tapping, 1990). These potential reservoirs have measured porosities of about 10–30 percent and permeabilities of about 5–60 millidarcies. Traps are created because these reservoirs are draped with impermeable, micritic, tidal-flat, and in some cases argillaceous lime mudstone units and anhydrite. The formation is underlain by thick, dense nodular and nodular-mosaic anhydrite units of the Gordon Pass Formation.

Oil and tarry residues recorded in wells that penetrate the Dollar Bay Formation are believed to originate within the formation (Palacas, 1978a, 1978b; Winston, 1971). The

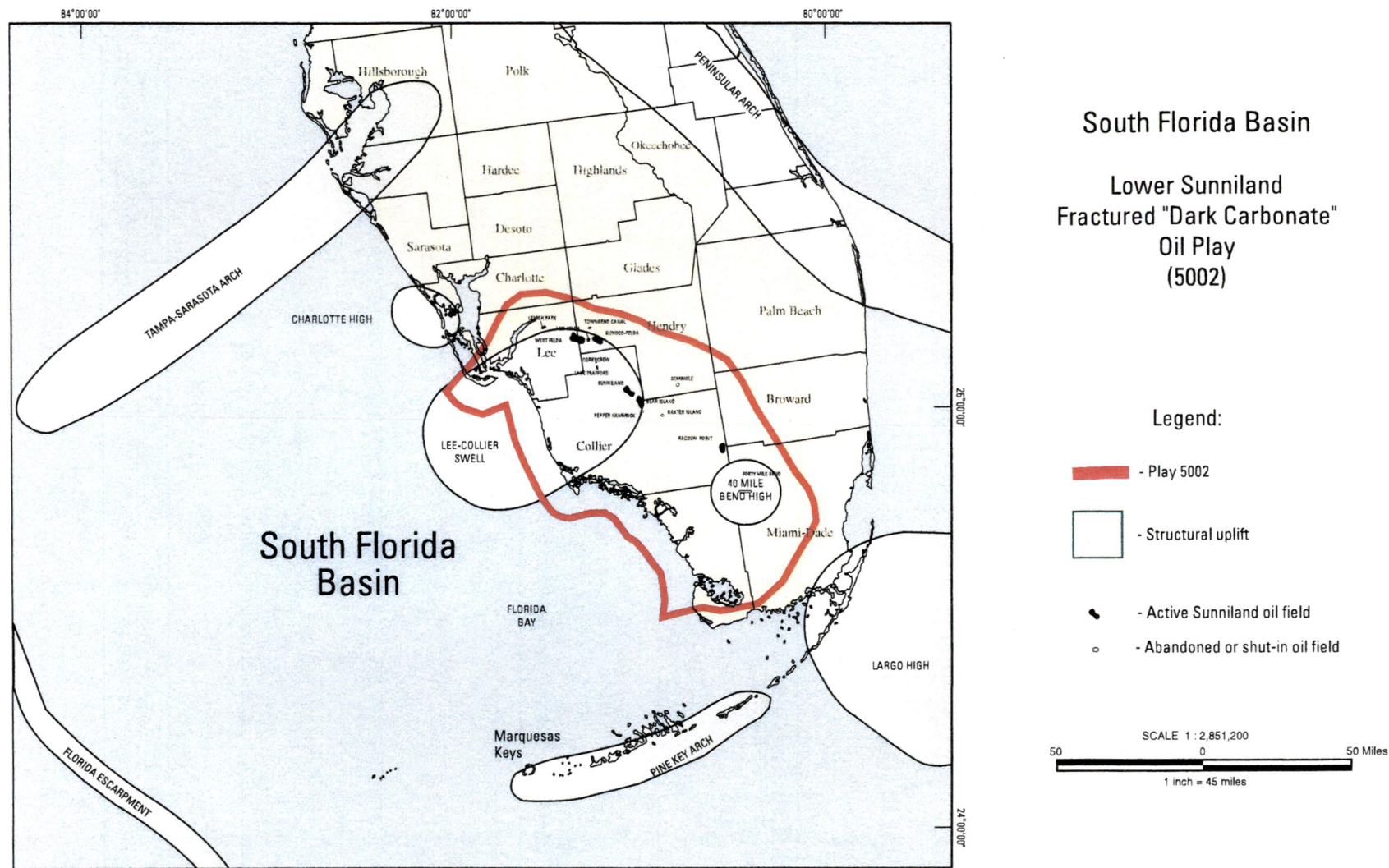


Figure 6. Map of South Florida Basin showing structural uplifts, known Sunniland oil fields, and boundaries of Lower Sunniland Fractured "Dark Carbonate" Shoal Oil play (5002).

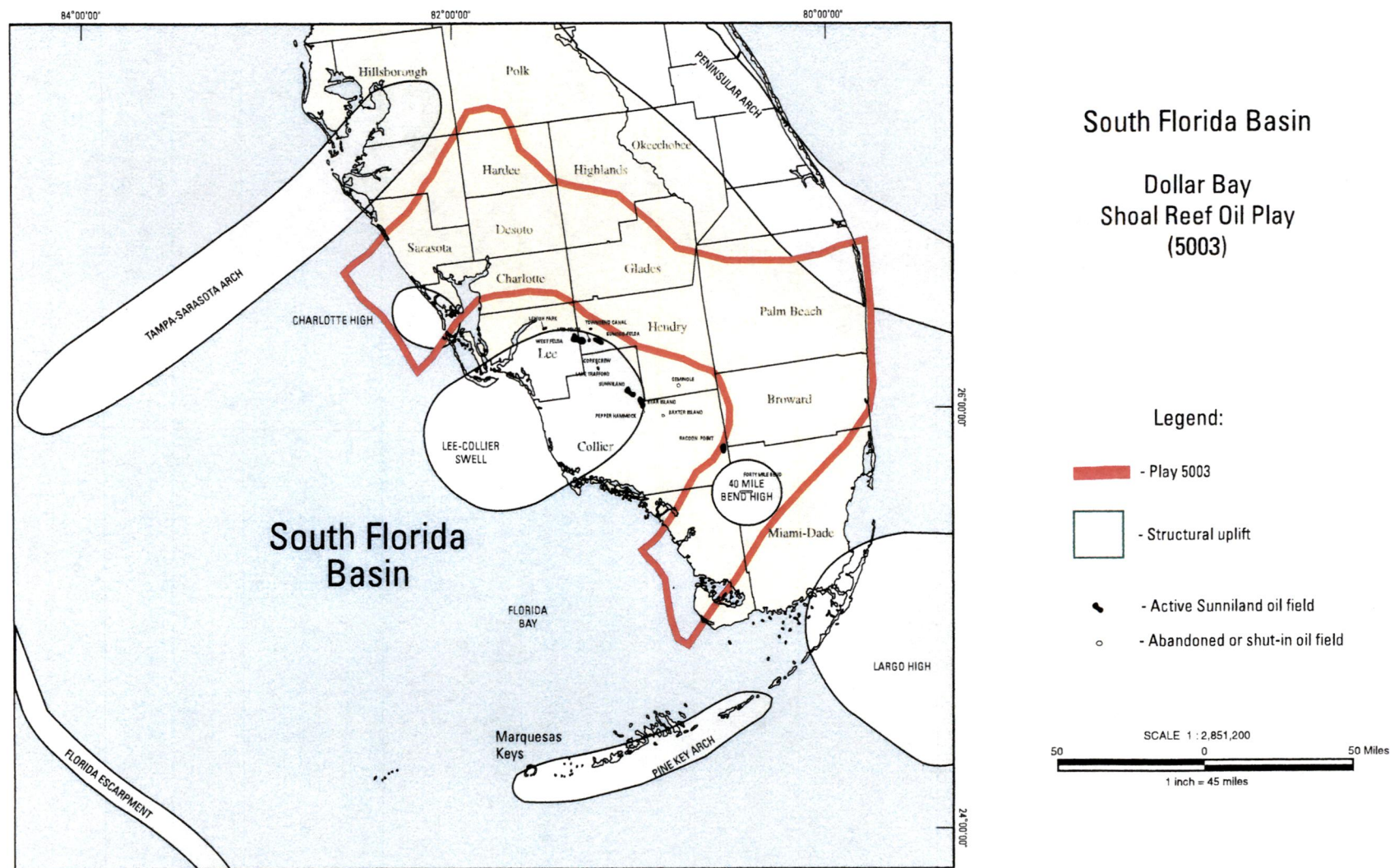


Figure 7. Map of South Florida Basin showing structural uplifts, known Sunniland oil fields, and boundaries of Dollar Bay Shoal Reef Oil play (5003).

organic-matter content of the Dollar Bay Formation ranges from very lean to fairly rich, with some beds containing more than 3 weight percent TOC; the average TOC of the Dollar Bay is about 0.6 weight percent (Palacas, 1978a, 1978b). Most petroleum explorationists infer that rocks of the Dollar Bay Formation located updip and to the northeast of the Sunniland trend are thermally immature and probably have not generated hydrocarbons of commercial quality and quantity (Montgomery, 1987). Others strongly disagree, however, and predict that the Dollar Bay Formation has been overlooked and should be considered a primary oil target with good resource potential (Winston, 1971; Palacas, 1978a, 1978b; Mitchell-Tapping, 1990).

Offshore, in the more central portion of the basin where the Dollar Bay Formation lies at depths of more than 10,000 ft, the formation rocks should be more thermally mature. Based on one major show that consisted of 15 ft of free oil, API gravity measured 17° at a depth of about 10,000 ft. Thus, API gravities of oil from this play are expected to be low and probably range from 15° to 20° (Mitchell-Tapping, 1990); sulfur contents are similar to those of Sunniland-type oils (2–4 percent). Moreover, the inferred presence of patch reefs and more complex structures in the Federal offshore region, and the increased thermal maturity of rocks of the Dollar Bay Formation in the offshore portion of the basin, enhance the potential for new field discoveries and commercial oil production.

The Dollar Bay Formation was assessed to have the second largest volume of undiscovered oil with a total mean volume of about 66 MMBO. The median number of discoveries was 8 at a median field size of 10 MMBO (table 1).

Play 5004—Lower Cretaceous Carbonate Composite Oil Play

The hypothetical Lower Cretaceous Composite Oil play comprises two units in the South Florida Basin: the Lehigh Acres Formation brown dolomite zone and a potentially porous dolomite unit within the underlying Pumpkin Bay Formation (fig. 2). Both units in this play are believed to contain oil mainly derived from organic-rich beds in the upper part of the Pumpkin Bay Formation.

The play is divided into two separate areas: one is centered in Lee County and intersects the Sunniland trend, and the other is centered near the Marquesas Keys (fig. 8). The northern part (Lee County and vicinity) includes the area (outlined by Applegate, 1987) containing porous brown dolomite and an area within the Pumpkin Bay Formation that contains live oil in porous dolomite (6–16 percent porosity). The section is thickest (as much as 1,200 ft thick, as measured from reference wells in State waters near Charlotte Harbor and onshore in Collier and Hendry Counties) in these areas and has good to excellent source-rock potential (determined from geochemical and thermal-maturity measurements) (Means, 1977; Applegate

and others, 1981; Palacas and others, 1981; Attilio and Blake, 1983; Faulkner and Applegate, 1986; Applegate, 1987; Montgomery, 1987). The rocks of the northern area (fig. 8) possess high porosity caused by epigenetic dolomitization in an active geothermal lineament system (Saul, 1987). Several oil shows were reported in thick, porous dolomite beds in the southern part of the play centered near Marquesas Keys (Faulkner and Applegate, 1986; Lloyd, 1992).

The informally named brown dolomite zone refers to a dolomite unit commonly found within the Twelve Mile Member of the Lower Cretaceous Lehigh Acres Formation (Aptian). The brown dolomite lies about 300 ft below the base of the Punta Gorda Anhydrite and about 1,000 ft below the Sunniland Formation (fig. 2). The unit is best developed onshore in Charlotte County and surrounding counties where it is thickest (about 100 ft) and most porous (10–22 percent) and at a depth of about 12,000 ft (fig. 8). Good oil shows were reported in this unit, and because it is about 1,000 ft lower in the stratigraphic section than the Sunniland Formation, oil from the brown dolomite is predicted to have a higher API gravity (20°–50°?) and higher thermal maturity than oil from the Sunniland Formation.

Reservoirs consist of sucrosic dolomite and exhibit pinpoint to vuggy porosity in beds at least 50 ft below the top of the Twelve Mile Member of the Lehigh Acres Formation. As much as 50 ft of porous dolomite have been found onshore where the brown dolomite zone reaches a maximum thickness of about 100 ft. An onshore area (in Charlotte, Lee, Hendry, Collier, Highlands, and Glades Counties, and adjacent State waters) with the highest resource potential is defined by the porous zones delineated by Applegate (1987). Good oil shows were observed in dolomite penetrated by the Bass Collier 12-2 well in Collier County; porosities determined from a sonic log ranged from 10 to 22 percent and core porosities were as high as 18 volume percent. State and Federal waters are predicted to have high resource potential. In particular, oil stains were noted in about 350 ft of mostly porous dolomite penetrated by wells located near the Marquesas Keys (Faulkner and Applegate, 1986; Lloyd, 1992).

The thickest and deepest sedimentary interval with significant reservoir potential in the South Florida Basin is the Lower Cretaceous Pumpkin Bay Formation. The formation is composed of limestone, except at its northern limit where dolomite is the dominant lithology. Within Province 50, the Pumpkin Bay Formation is as much as 1,200 ft thick in offshore Florida State waters of Charlotte Harbor; the formation is projected to thicken westward in Federal offshore waters and into the basin depocenter (Faulkner and Applegate, 1986). Onshore, the Pumpkin Bay Formation is found at present depths from about 12,500 to 14,000 ft. Core porosities for rocks of the Pumpkin Bay Formation are as high as 20 percent, and sonic well-log porosities are slightly higher. Porosities are generally lower in the Pumpkin Bay Formation than in potential reservoirs found in younger units. Generally, rocks with the highest resource potential in the Pumpkin Bay Formation are located in the Pulley Ridge area of Federal offshore

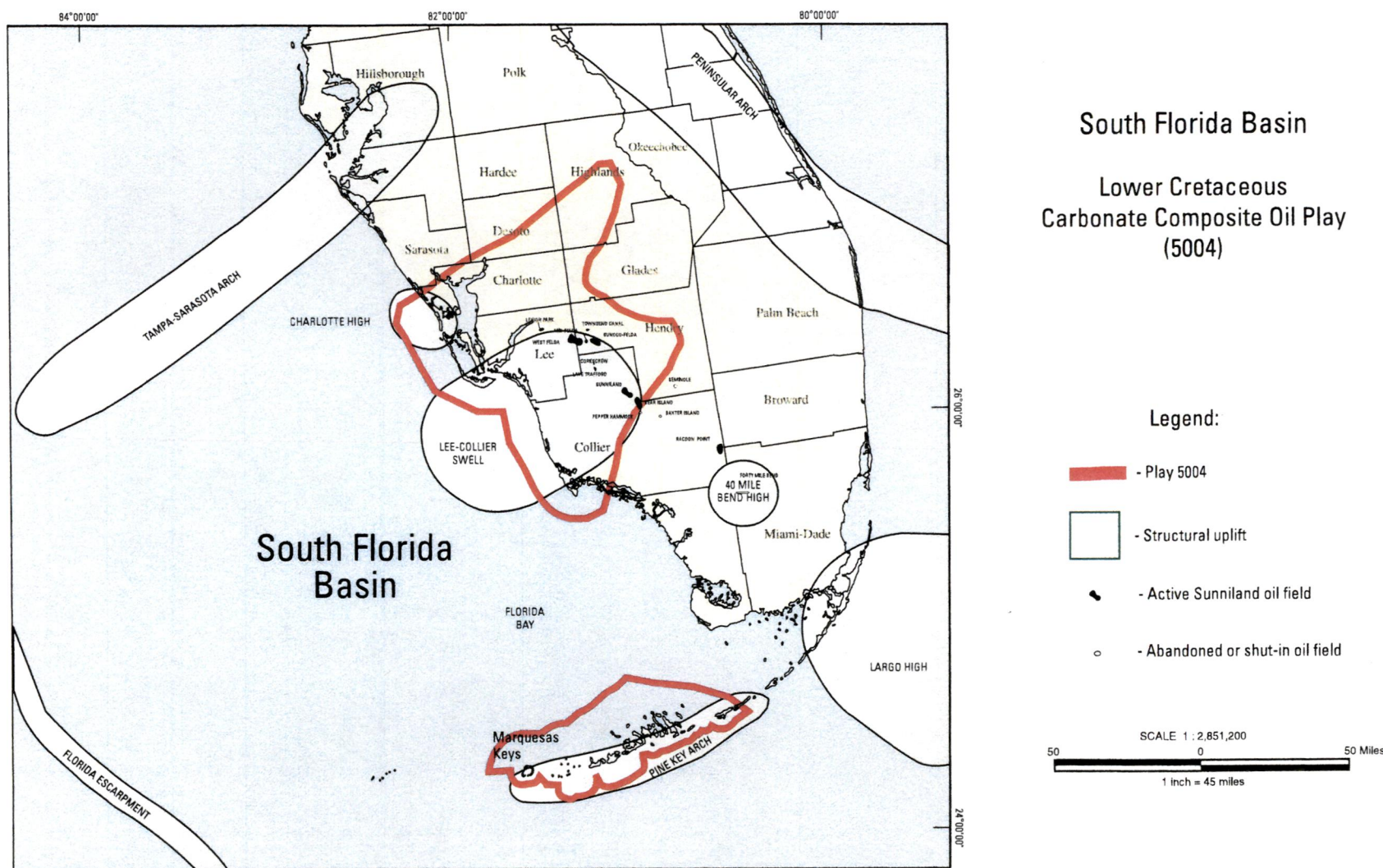


Figure 8. Map of South Florida Basin showing structural uplifts, known Sunniland oil fields, and boundaries of Lower Cretaceous Carbonate Composite Oil play (5004).

waters (Faulkner and Applegate, 1986). Projections indicate that the formation is as much as 1,500 ft thick in this area and that the best reservoirs exist within a thick porous dolomite zone (300–350 ft thick; pinpoint to vuggy porosity as high as 25 percent) in the middle and upper parts of the formation; depths range from about 12,500 ft to more than 15,000 ft.

Source-rock studies by Palacas and others (1981) indicate that organic-rich beds in the upper Pumpkin Bay Formation are likely source rocks for oils. These oils could be trapped in reservoirs that exist within the middle and upper parts of the Pumpkin Bay and in the porous brown dolomite zone. Palacas and others (1981) identified organic-rich, argillaceous carbonate beds with high (0.43–3.2 weight percent) TOC in the upper Pumpkin Bay and concluded that these beds had the greatest petroleum-generating potential of all rocks older than the Punta Gorda Anhydrite.

The TOC contents of these rocks, however, vary within the basin. Most rocks within the Twelve Mile Member of the Lehigh Acres Formation contain insufficient organic matter (average of about 0.3 percent TOC) to have generated commercial amounts of petroleum. Some richer source beds are present within this unit, however, having marginal (about 0.5 percent TOC) to good source potential. Particularly, more than 2.0 percent TOC is contained in a relatively thin (about 1 ft thick) limestone bed in the West Felda field.

The thermal-maturation level for oil generation is higher in this play than that for the upper and lower Sunniland plays (5001 and 5002). Thus, oils of this play are expected to be marginally to moderately mature and to have higher API gravities (25° to 50°) and higher GOR's than Sunniland oils.

Total mean volume of undiscovered oil in the Lower Cretaceous Carbonate Composite Oil play was estimated at about 11 MMBO. The median number of new discoveries is eight accumulations having a median field size of 2 MMBO (table 1).

Play 5005—Extended Upper Sunniland Tidal Shoal Oil Play

This hypothetical play is an eastward and southward extension (fig. 9) of the productive Sunniland trend in the Upper Sunniland Tidal Shoal Oil play (5001). Thus, reservoir and source rocks are the same as those of play 5001. This play forms a southwest-to-northeast-oriented arcuate trend approximately 20 mi wide and 250 mi long that extends from the State waters of the Dry Tortugas northeast, through the Florida Keys and along the southeastern Atlantic Coast of the Florida Peninsula to Broward County. Bioclastic mounds smaller than those found in currently productive units of the upper part of the Sunniland Formation accumulated on subtle structural highs in this updip, less thermally mature area of the basin to the east and far south. Prominent positive structural elements include the Pine Key arch and the Largo high. Some low API gravity (10°–14°) heavy-oil shows have been reported in

wells in the northern portion of the play area; however, 22° API gravity oil was reported in shows from wells near the Marquesas Keys in the west and southernmost part of the play area (Faulkner and Applegate, 1986; Lloyd, 1992).

The Extended Upper Sunniland Tidal Shoal Oil play (5005) is delineated by an area that may contain porous tidal-shoal facies that formed on topographic/bathymetric highs. The dark carbonate source unit in the lower part of the Sunniland Formation thins toward the eastern and southern margins of the basin south of the play, making it less favorable than the proven Upper Sunniland Tidal Shoal Oil play (5001). The Sunniland Formation rocks in this area are also less thermally mature than in play 5001. The eastern and southern Atlantic coastal boundaries of the play are delineated by the Florida State waters 3-mi boundary, and the northern, Gulf of Mexico boundary is delineated by the 10.36 mi Florida State waters boundary.

Total mean volume of undiscovered oil in the Extended Upper Sunniland Tidal Shoal Oil play was estimated at about 27.3 MMBO with an additional 14.6 BCF of associated gas. The median number of new discoveries is six accumulations having a median field size of 4 MMBO (table 1).

Play 5006—Wood River Dolomite Deep Gas Play

In the hypothetical Wood River Dolomite Deep Gas play (fig. 2 and fig. 10), the Upper Jurassic(?) and Lower Cretaceous Wood River Formation averages about 1,700 ft thick and stratigraphically is the lowest sedimentary unit in the South Florida Basin. The few wells that have penetrated this formation show that a 100- to 150-ft-thick clastic unit forms the basal part of the Wood River Formation and consists of dark-red shale and fine- to coarse-grained arkosic sandstone and calcareous sandstone (Applegate and others, 1981). These basal clastic units may represent fan, fan-delta, and fluvial-lacustrine or marine deposits. Below the basal clastic sequence in Collier County is a rhyolite porphyry with an age of 189 Ma. Overlying these clastic rocks is a thick sequence of anhydrite, dolomite, and limestone with occasional interbedded salt stringers, indicating marine transgression (Applegate and others, 1981).

The Mobil-Phillips Seminole "C" well near Seminole field (fig. 10) in Hendry County produced measurable gas and water flows at depths of about 15,700 ft from perforations in a dolomite zone averaging about 8 percent porosity. Moreover, logs from the well indicated higher porosities and increased resistivities just above the perforated section, possibly indicating the presence of gas (Applegate and others, 1981; Palacas and others, 1981). Although formation damage occurred in the well bore, this well had potential for commercial gas production (J.G. Palacas, oral commun., 1994); the occurrence of a potentially commercial well indicates a possible source of deep gas. Marine beds, generally regarded as potential petroleum sources, are predominant in the formation, and the

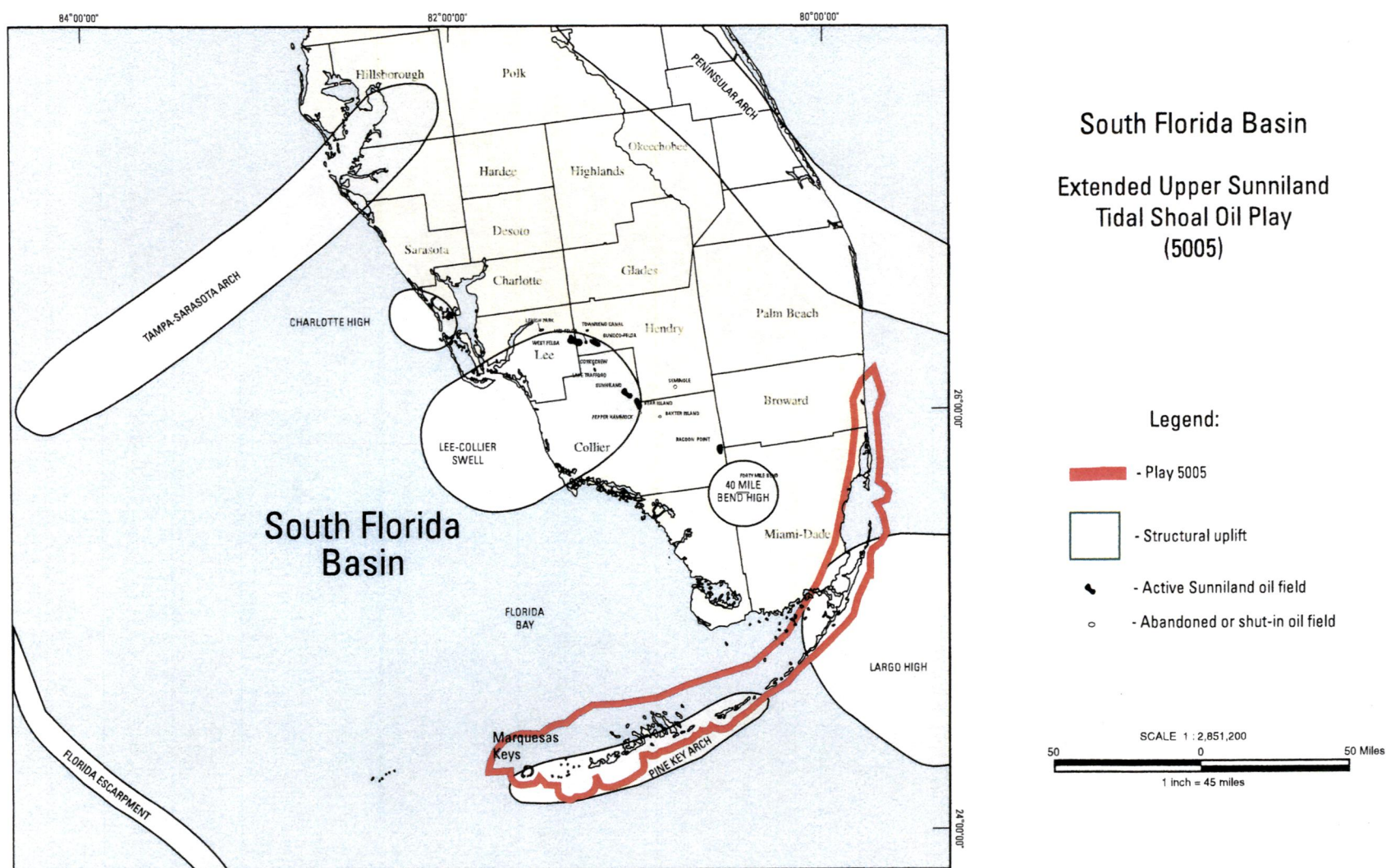


Figure 9. Map of South Florida Basin showing structural uplifts, known Sunniland oil fields, and boundaries of Extended Upper Sunniland Tidal Shoal Oil play (5005).

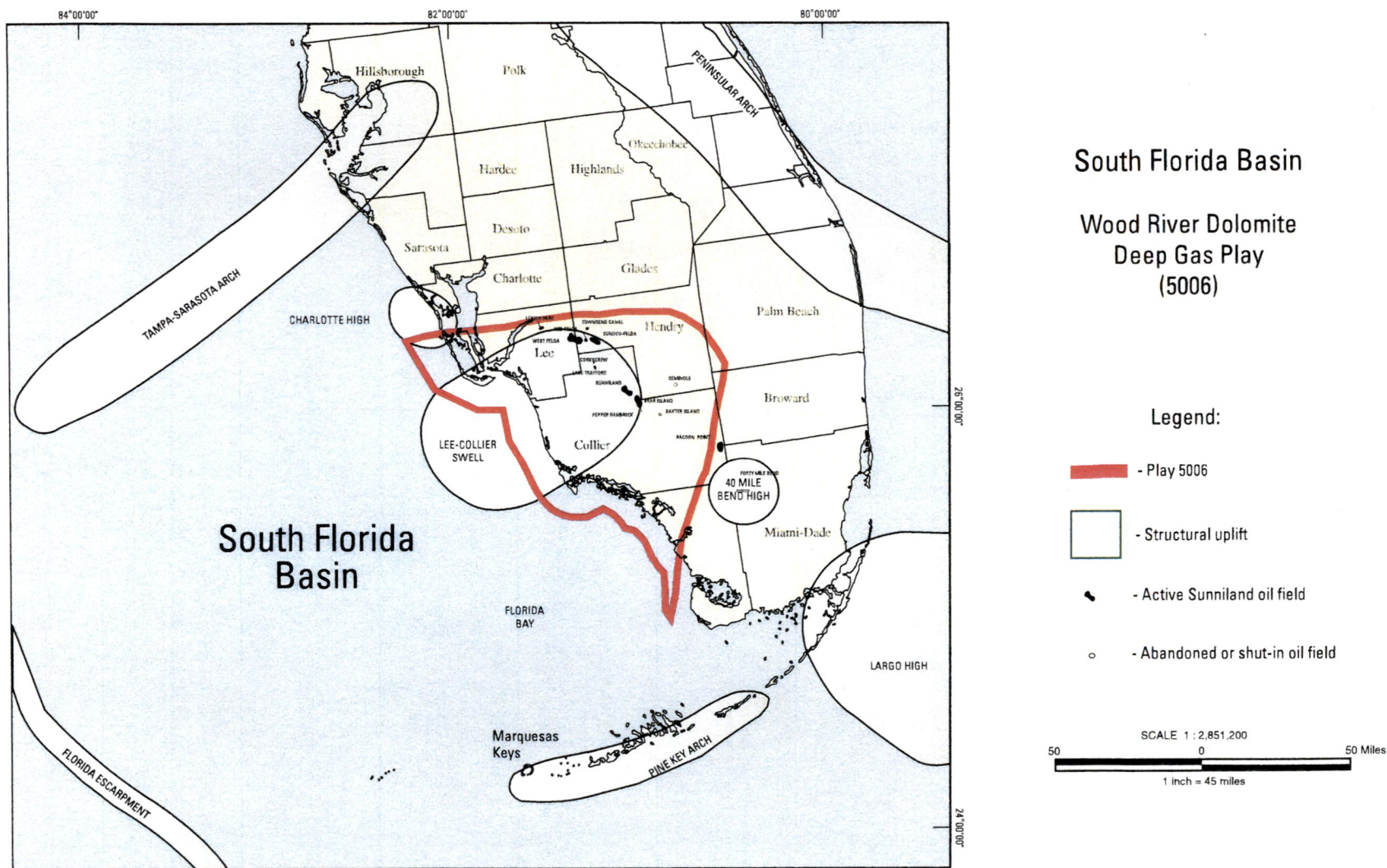


Figure 10. Map of South Florida Basin showing structural uplifts, known Sunniland oil fields, and boundaries of Wood River Dolomite Deep Gas play (5006).

depositional environment, especially in the southern part of the play area, probably favored reef growth; thus a source, a seal, and a reservoir should be present.

Organic geochemistry studies of well samples from the Wood River Formation indicate that the hydrocarbon-generating potential of the unit ranges from poor to excellent (Palacas and others, 1981; Faulkner and Applegate, 1986). The scarcity of wells penetrating the Wood River Formation, however, limits and evaluation of each of the geologic and petroleum system components of the play and, therefore, the play is considered hypothetical and was risked heavily. The rocks of potential reservoirs in the Wood River are porous (8 percent or greater) dolomite units enclosed by anhydrite, salt stringers, and (or) micritic limestone at depths of about 15,000–19,000 ft onshore and in State waters. The play area includes areas of the southern part of basin where reef growth is favored (fig. 10). It is possible that gas in the Wood River Formation in the area of the Sunniland trend may have originated in deeper parts of the basin and migrated updip, perhaps as a single large accumulation. The Wood River Dolomite Gas play was risked for charge, reservoir, and trap. The combined risk probability of the play was 0.1, which categorized the play as high risk and was not assessed in the 1995 USGS Assessment.

Summary

The 1995 USGS National Oil and Gas Assessment defined six conventional plays in the Florida Peninsula Province (USGS Province 50), all within the South Florida Basin. Five of these plays were assessed, all which were oil plays of Cretaceous age. The sixth was a deep gas play in dolomite of the Upper Jurassic(?) and Lower Cretaceous Wood River Formation and was highly risked, thus not assessed.

A mean total undiscovered resource of 370.1 MMBO and 57.5 BCFG (about 6 MMBOE) was estimated from the five oil plays of the South Florida Basin. The upper Sunniland Formation along the main “fairway” where eight fields of >1 MMBO have been discovered was estimated to contain the most (254 MMBO or about 70 percent) of the total estimated mean undiscovered oil in the South Florida Basin. The less mature, Dollar Bay Shoal-Reef play ranked second with a total estimated 66 MMBO. The future of Florida’s moderate potential for undiscovered resources may be limited by environmental and political controls that discourage oil and gas exploration and development within the South Florida Basin.

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