ARENA RESOURCES INC Form 424B2 May 29, 2008

The information in this preliminary prospectus supplement is not complete and may be changed. We may not sell the securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus supplement is not an offer to sell the securities and it is not soliciting an offer to buy these securities in any state where the offer or sale is not permitted

Subject to Completion Preliminary Prospectus Supplement dated May 28, 2008

PROSPECTUS SUPPLEMENT (To prospectus dated May 28, 2008)

Filed Pursuant to Rule 424(b)(2) Registration No. 333-151220

ARENA RESOURCES INC.

We are offering for sale shares of our common stock pursuant to this prospectus supplement and the accompanying base prospectus.

Our common stock is currently listed on The New York Stock Exchange under the symbol ARD . On May 28, 2008, the closing price of our common stock on the New York Stock Exchange was \$51.92 per share.

An investment in shares of our common stock involves a high degree of risk. See the section entitled Risk Factors in our Annual Report on Form 10-K filed on March 12, 2008, and beginning on page 3 of the accompanying base prospectus contained in this prospectus supplement, and in the documents incorporated by reference herein and therein.

\$ Per Share

	Price to Public	Underwriting Discounts and Commissions	Proceeds to Company (before expenses)
Per Share	\$	\$	\$
Total	\$	\$	\$

We have granted the underwriters an option to purchase up to additional shares of common stock from us at the public offering price, less the underwriting discount, within 30 days from the date of this prospectus supplement to cover over-allotments.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement or the accompanying prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

Dahlman Rose & Company expects to deliver the shares to purchasers on or about June , 2008.

Dahlman Rose & Company

\$ Per Share 1

Tudor, Pickering, Holt & Co.

Capital One Southcoast, Inc.

The date of this prospectus supplement is May $\,$, 2008

\$ Per Share 2

TABLE OF CONTENTS

Prospectus Supplement

	Page
Important Note About Information in This Prospectus Supplement	S-ii
Cautionary Note Regarding Forward-Looking Statements	S-ii
Prospectus Supplement Summary	S-1
Risk Factors	S-4
Use of Proceeds	S-4
Capitalization	S-4
Underwriting	S-5
Expenses	S-7
Legal Matters	S-7
Experts	S-7
Where You Can Find More Information	S-8
Incorporation of Documents by Reference	S-8
Prospectus	
Prospectus Summary	1
Risk Factors	3
Use of Proceeds	4
Dividend Policy	4
Capitalization	4
Description of Securities	5
Plan of Distribution	5
Legal Matters	6
Experts	6
Where You Can Find More Information	7
Incorporation of Documents by Reference	7

Prospectus 3

S-i

Prospectus 4

IMPORTANT NOTE ABOUT INFORMATION IN THIS PROSPECTUS SUPPLEMENT

This document is in two parts. The first part is the prospectus supplement, which describes the specific terms of this offering and also adds to and updates information contained in the accompanying base prospectus and the documents incorporated by reference into this prospectus supplement and the base prospectus. The second part, the base prospectus, gives more general information about securities we may offer from time to time, some of which does not apply to this offering. Generally, when we refer only to the prospectus, we are referring to both parts combined, and when we refer to the accompanying prospectus, we are referring to the base prospectus.

If the description of this offering varies between this prospectus supplement and the accompanying prospectus, you should rely on the information in this prospectus supplement. This prospectus supplement, the accompanying prospectus and the documents incorporated into each by reference include important information about us, the common stock being offered and other information you should know before investing. You should read the accompanying prospectus together with additional information described under the heading Where You Can Find More Information before investing in our common stock.

We prepare our financial statements, including all the financial statements included or incorporated by reference in this prospectus supplement, in U.S. dollars and in conformity with accounting principles generally accepted in the Unites States, or U.S. GAAP . We have a fiscal year end of December 31.

You should rely only on the information contained in or incorporated by reference in this prospectus supplement and the accompanying prospectus. We have not authorized anyone to provide you with information that is different. If anyone provides you with different or inconsistent information, you should not rely on it. We are offering to sell, and seeking offers to buy, common stock only in jurisdictions where offers and sales are permitted. The information contained in or incorporated by reference in this document is accurate only as of the date such information was issued, regardless of the time of delivery of this prospectus supplement or any sale of our common shares. Our business, financial condition and results and prospects may have changed since those dates.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus supplement and the accompanying prospectus contain forward-looking statements that are subject to a number of risks and uncertainties, many of which are beyond our control, which may include statements about our:

business strategy; reserves; financial strategy; production;

uncertainty regarding our future operating results;

plans, objectives, expectations and intentions contained in this prospectus that are not historical.

S-ii

Such statements involve risks and uncertainties, including, but not limited to, those relating to our dependence on our exploratory drilling activities, the volatility of oil and natural gas prices, the need to replace reserves depleted by production, operating risks of oil and natural gas operations, our dependence on our key personnel, factors that affect our ability to manage our growth and achieve our business strategy, technological changes, our significant capital requirements, the potential impact of government regulations, adverse regulatory determinations, litigation, competition, the uncertainty of reserve information and future net revenue estimates, property acquisition risks, industry partner issues, availability of equipment, weather and other factors detailed herein and in our other filings with the SEC.

All statements, other than statements of historical fact included in this prospectus supplement and accompanying prospectus, regarding our strategy, future operations, financial position, estimated revenues and losses, projected costs, prospects, plans and objectives of management are forward-looking statements. When used in this prospectus, the words could, believe, anticipate, intend, may estimate, expect, similar expressions are intended to identify forward-looking statements, although not all forward-looking statements contain such identifying words. All forward-looking statements speak only as of the date of this prospectus supplement and accompanying prospectus. You should not place undue reliance on these forward-looking statements. Although we believe that our plans, intentions and expectations reflected in or suggested by the forward-looking statements we make in this prospectus are reasonable, we can give no assurance that these plans, intentions or expectations will be achieved. We disclose important factors that could cause our actual results to differ materially from our expectations under Risk Factors and elsewhere in this prospectus. These cautionary statements qualify all forward-looking statements attributable to us or persons acting on our behalf.

S-iii

pro

PROSPECTUS SUPPLEMENT SUMMARY

This summary highlights information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus. You should read this entire prospectus supplement, the accompanying prospectus and the documents incorporated by reference carefully, including the section entitled Risk Factors in our Annual Report on Form 10-K filed March 12, 2008 and incorporated herein by reference, before making an investment decision with respect to our common stock. Unless the context otherwise requires, references in this prospectus supplement to Arena, we, us, our or ours refer to Arena Resources, Inc. Terms used in this prospectus supplement will have the meanings ascribed to them in the base prospectus, unless otherwise specified. Unless indicated, all information presented in this prospectus supplement assumes that the underwriters option to purchase additional shares to cover over-allotments is not exercised.

You should rely only on the information contained in this prospectus supplement and accompanying prospectus, including the documents incorporated by reference. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it.

About Our Company

We are engaged in oil and natural gas acquisition, exploration, development and production, with activities currently in Oklahoma, Texas, New Mexico and Kansas. Our current strategy is on developing our existing properties, while continuing to pursue acquisitions of oil and gas properties that provide immediate cash flow with upside development potential.

Since our inception in August 2000, we have built our asset base and achieved growth primarily through property acquisitions. From our inception through December 31, 2007, we have increased our proved reserves to approximately 55.4 million barrels of oil equivalent, or Boe. These reserves have been included in our Annual Reports on Form 10-K as filed with the Securities and Exchange Commission, or SEC, but have not been reported to any other federal agency. As of December 31, 2007, our estimated proved reserves had a pre-tax present value of future net revenues before income taxes discounted at 10%, or PV10, of approximately \$1.98 billion and a Standardized Measure of Discounted Future Net Cash Flows of approximately \$1.28 billion. The difference between these two amounts is the effect of income taxes. The Company presents the pre-tax PV-10 value, which is a non-GAAP financial measure, because it is a widely used industry standard which we believe is useful to those who may review this prospectus or our Annual Report on Form 10-K when comparing our asset base and performance to other comparable oil and gas exploration and production companies. We spent approximately \$302.8 million on acquisitions and capital projects during 2005, 2006 and 2007.

We have a portfolio of oil and natural gas reserves, with approximately 86% of our proved reserves consisting of oil and approximately 14% consisting of natural gas. Of those reserves approximately 26% of our proved reserves are classified as proved developed producing, or PDP, approximately 6% of our proved reserves are classified as proved developed non-producing, or PDNP, approximately 4% are classified as proved developed behind pipe, or PDBP, and approximately 64% are classified as proved undeveloped, or PUD.

Our estimates of proved reserves and related valuations as of December 31, 2007 are based on an analysis prepared by Lee Keeling and Associates, Inc., independent petroleum geological engineers.

S-1

About Our Company 7

Although our focus will be on development of our existing properties, we also intend to continue seeking acquisition opportunities which complement our current portfolio. We intend to fund our development activity primarily through use of a portion of the proceeds of this offering, from potential future offerings, from cash flow from operations and cash on hand; however, potential drawings on our credit facility would also be available for development projects or future acquisitions.

Recent Developments Subsequent to Our Year Ending December 31, 2007

Subsequent to December 31, 2007, in addition to matters that were reported by us in our Annual Report on Form 10-K for the year ended December 31, 2007, or which were thereafter reported in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2008, or in our Current Report on Form 8-K filed with the SEC on May 23, 2008 (see, Incorporation of Certain Documents by Reference), the following have occurred:

We borrowed an additional \$5,500,000 under our credit facility, which we have used or intend to use for continued development activities.

We issued an option to Mr. David Ricks, our Vice President of Operations, for 50,000 shares of our common stock. This option vests at the rate of 20% per year, and is exercisable at \$45.68 per share. The fair value of this option was \$915,270 based on the following assumptions: 3.09% interest rate, 45.12% volatility, 4.25 average expected life, and 0% dividend rate.

Corporate Information

Arena Resources, Inc. was incorporated in Nevada on August 31, 2000. Our principal executive offices are located at 6555 South Lewis Avenue, Tulsa, Oklahoma 74136, and our telephone number is 1-918-747-6060.

S-2

The Offering

Shares of common stock offered by this prospectus supplement

Shares of common stock to be outstanding immediately after this offering

Use of Proceeds

We estimate that the net proceeds from this offering, after deducting estimated expenses relating to this offering, will be approximately \$ million assuming no exercise of the over-allotment option granted to the underwriters, and \$ million assuming full exercise of the over-allotment option. We plan to use the net proceeds from this offering to repay existing debt and for capital expenditures, which will include drilling and development of our properties, possible acquisitions of additional properties and for general corporate purposes. We may invest net proceeds temporarily until we use them for their stated purpose.

New York Stock Exchange Symbol

Risk Factors

"ARD"

Investing in our common stock involves a high degree of risk. You should carefully review the risks discussed under the section entitled Risk Factors in our Annual Report on Form 10-K filed on March 12, 2008, beginning at page 3 of the accompanying base prospectus, contained in this prospectus supplement or under any similar caption in the documents that we subsequently file with the SEC that are incorporated or deemed incorporated by reference in this prospectus and in any free writing prospectus that you may be provided in connection with the offering of common stock pursuant to this prospectus supplement.

The number of shares of common stock to be outstanding after this offering is based on 35,147,411 shares of common stock issued and outstanding as of May 27, 2008, but excludes 2,680,000 shares of common stock reserved for issuance upon exercise of options under our Stock Option Plan, 258,708 shares of common stock reserved for issuance upon the exercise of outstanding warrants, and the underwriters option to purchase up to additional shares of common stock to cover any over-allotments. See Underwriting.

S-3

The Offering 9

RISK FACTORS

An investment in our common stock involves a high degree of risk. You should carefully consider the discussion of risks under the section entitled Risk Factors in our Annual Report on Form 10-K filed March 12, 2008, under the heading Risk Factors beginning on page 3 of the base prospectus and in the documents we have incorporated by reference in this prospectus supplement that may materially affect our business, before making an investment decision related to our common stock. Please see Incorporation of Certain Documents by Reference. The occurrence of one or more of those risk factors could adversely impact our results of operations or financial condition.

USE OF PROCEEDS

We estimate that the net proceeds from this offering, after deducting estimated expenses relating to this offering, will be approximately \$\ \text{million} \text{ million} \text{ assuming no exercise of the over-allotment option granted to the underwriters, and \$\ \text{ million} \text{ assuming full exercise of the over-allotment option. We plan to use the net proceeds from this offering to repay existing debt and for capital expenditures, which will include drilling and development of our properties and possible acquisitions of additional properties.

CAPITALIZATION

The following table sets forth our capitalization as of March 31, 2008 on an actual basis, and on an as adjusted basis to give effect to this offering and the application of net proceeds of this offering, as described under Use of Proceeds.

You should read the adjusted capitalization table information below in connection with Use of Proceeds and our financial statements and related notes appearing elsewhere or incorporated by reference in this prospectus supplement and the accompanying prospectus.

	March 31, 2008		
		Actual	As Adjusted (1)
Debt:			
Credit Facility	\$	40,500,000	\$
Total debt	\$	40,500,000	\$
Shareholders' equity:			
Common stock, \$.001 par value, 100,000,000 shares authorized;			
outstanding actual (35,107,411 shares) and as adjusted (shares)	\$	35,108	\$
Additional paid-in capital	\$	194,173,945	\$
Retained earnings net of accumulated other comprehensive loss	\$	84,858,844	\$
Total shareholders' equity	\$	279,067,897	\$
Total capitalization	\$	319,567,897	\$

⁽¹⁾ There have been no significant changes to our capitalization since March 31, 2008, as so adjusted

S-4

CAPITALIZATION 10

UNDERWRITING

Under the terms and subject to the conditions in an underwriting agreement dated May , 2008, the underwriters named below, for whom Dahlman Rose & Company, LLC is acting as representative, have severally agreed to purchase and we have agreed to sell to them, severally, the number of shares of common stock indicated below:

Name Number of Shares

Dahlman Rose & Company, LLC Tudor, Pickering, Holt & Co. Securities, Inc. Capital One Southcoast, Inc.

The address for Dahlman Rose & Company is 142 West 57th Street, New York, New York. The address for Tudor, Pickering, Holt & Co. is 1111 Bagby, Suite 5100, Houston, Texas. The address for Capital One Southcoast, Inc. is 909 Poydras Street, Suite 1000. New Orleans, Louisiana.

The underwriting agreement provides that the obligations of the several underwriters to pay for and accept delivery of the shares of common stock offered by this prospectus supplement are subject to the approval of certain legal matters by their counsel and to certain other conditions. The underwriters are obligated to take and pay for all of the shares of common stock offered by this prospectus supplement if any such shares are taken. However, the underwriters are not required to take or pay for the shares of common stock covered by the underwriters over-allotment option described below.

The underwriters initially propose to offer part of the shares of common stock directly to the public at the offering price listed on the cover page of this prospectus supplement and part to certain dealers at that price less a concession not in excess of \$ per share. If all the shares are not sold at the public offering price, the representative may change the offering price and the other selling terms.

We have granted to the underwriters an option, exercisable for 30 days from the date of this prospectus supplement, to purchase up to additional shares of common stock at the purchase price listed above. The underwriters may exercise this option solely for the purpose of covering over-allotments, if any, made in connection with the offering of the shares of common stock offered by this prospectus supplement. To the extent the option is exercised, each underwriter will become obligated, subject to certain conditions, to purchase about the same percentage of the additional shares of common stock as the number listed next to the underwriter's name in the preceding table bears to the total number of shares of common stock listed next to the names of all underwriters in the preceding table.

The following table shows the per share and total purchase price, underwriting discounts and commissions, and proceeds before expenses to us. These amounts are shown assuming both no exercise and full exercise of the underwriter s option to purchase up to an additional shares of common stock.

	Total Per Share	No Exercise	Full Exercise
Purchase price	\$	\$	\$
Underwriting discounts and commissions to be paid by us	\$	\$	\$
Proceeds, before expenses, to us	\$	\$	\$

The estimated offering expenses payable by us, exclusive of the underwriting discounts and commissions, are approximately \$...

Our shares of common stock are listed on the New York Stock Exchange under the trading symbol ARD .

S-5

UNDERWRITING 11

We and each of our officers and directors listed under the caption Executive Officers and Directors in Item 10 of our annual report on Form 10-K for the fiscal year ended December 31, 2007 have agreed that, subject to specified exceptions, without the prior written consent of Dahlman Rose & Company, LLC on behalf of the underwriters, we and it will not, during the period ending 75 days from the date of this prospectus supplement:

directly or indirectly, issue, offer, sell, agree to issue, offer or sell, solicit offers to purchase, grant any call option, warrant or other right to purchase, purchase any put option or other right to sell, pledge, borrow or otherwise dispose of any shares of common stock or any securities convertible into or exercisable or exchangeable for shares of common stock, or make any announcement of, or filing with the SEC with respect to, any of the foregoing; or

enter into any swap, derivative or other transaction or arrangement that transfers to another, in whole or in part, any economic consequence of ownership of any shares of common stock or any securities convertible into or exercisable or exchangeable for shares of common stock;

whether any such transaction described above is to be settled by delivery of shares of common stock or such other securities, in cash or otherwise. In addition, each such person agrees that, without the prior written consent of Dahlman Rose & Company, LLC on behalf of the underwriters, it will not, during the period ending 75 days after the date of this prospectus supplement, exercise any right with respect to the registration of any shares of common stock or any security convertible into or exercisable or exchangeable for shares of common stock.

In order to facilitate the offering of shares of common stock, the underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the shares of common stock. Specifically, the underwriters may sell more shares of common stock than they are obligated to purchase under the underwriting agreement, creating a short position. A short sale is covered if the short position is no greater than the number of shares of common stock available for purchase by the underwriters under the over-allotment option. The underwriters can close out a covered short sale by exercising the over-allotment option or purchasing shares of common stock in the open market. In determining the source of shares of common stock to close out a covered short sale, the underwriters will consider, among other things, the open market price of shares of common stock compared to the price available under the over-allotment option. The underwriters may also sell shares of common stock in excess of the over-allotment option, creating a naked short position. The underwriters must close out any naked short position by purchasing shares of common stock in the open market. A naked short position is more likely to be created if the underwriters are concerned that there may be downward pressure on the price of the shares of common stock in the open market after pricing that could adversely affect investors who purchase in this offering. As an additional means of facilitating this offering, the underwriters may bid for, and purchase, shares of common stock in the open market to stabilize the price of the shares of common stock. These activities may raise or maintain the market price of the shares of common stock above independent market levels or prevent or retard a decline in the market price of the shares of common stock. The underwriters are not required to engage in these activities and may end any of these activities at any time.

We and the underwriters have agreed to indemnify each other against certain liabilities, including liabilities under the Securities Act of 1933, as amended, or to contribute to payments that the underwriters may be required to make in respect of those liabilities.

A prospectus supplement in electronic format may be made available on websites maintained by one or more underwriters, or selling group members, if any, participating in this offering. Dahlman Rose & Company, LLC may agree to allocate a number of shares of common stock for sale to its online brokerage account holders. Internet distributions will be allocated by the representative to underwriters that may make internet distributions on the same basis as other allocations.

S-6

UNDERWRITING 12

Some of the underwriters and their affiliates were underwriters in previous offerings by us. Dahlman Rose & Company, LLC (142 West 57th Street, New York, New York) and its affiliates from time to time perform investment banking and other financial services for us and our affiliates for which they receive customary advisory or transaction fees, as applicable, plus out-of-pocket expenses.

EXPENSES

The following are the estimated expenses of the issuance and distribution of the securities being registered under the registration statement of which this prospectus supplement forms a part, all of which will be paid by us.

Sec Registration Fee	\$
Printing and engraving expenses	\$
Legal fees and expenses	\$
NYSE supplemental listing fee	\$
Blue sky fees and expenses	\$
Accounting fees and expenses	\$
Transfer agent and registrar	\$
Miscellaneous	\$
Total	\$

LEGAL MATTERS

The validity of the shares of common stock issued in this offering will be passed upon for us by the law firm of Johnson, Jones, Dornblaser, Coffman & Shorb, P.C., Tulsa, Oklahoma. Certain other matters will be passed upon for the underwriters by Seward & Kissel LLP, New York. New York.

EXPERTS

The consolidated financial statements and management s report on the effectiveness of internal control over financial reporting incorporated in this prospectus supplement by reference from the Company s Annual Report on Form 10-K have been audited by Hansen, Barnett & Maxwell P.C., an independent registered public accounting firm, as stated in their reports, which are incorporated by reference.

The information incorporated by reference into this prospectus supplement and accompanying prospectus regarding estimated quantities of oil and natural gas reserves and the discounted present value of future pre-tax cash flows therefrom is based upon estimates of such reserves and present values prepared by or derived from estimates included in our Annual Report on Form 10-K for the year ended December 31, 2007, prepared by Lee Keeling and Associates, Inc., independent petroleum engineering consultants, incorporated by reference. The information contained in this prospectus supplement and accompanying prospectus under the heading. About Our Company in the Prospectus Supplement Summary regarding the estimated quantities of oil and natural gas reserves and the discounted present value of future pre-tax cash flows therefrom is based upon estimates of such reserves and present values as of December 31, 2007, prepared by or derived from the Appraisal of Oil and Gas Properties dated December 31, 2007, prepared by Lee Keeling and Associates, Inc. All such information in this prospectus supplement and accompanying prospectus has been included in reliance on the authority of said firm as experts in petroleum engineering.

S-7

EXPERTS 13

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC under the Securities Act a registration statement on Form S-3 in connection with this offering. This prospectus supplement and the base prospectus, which constitutes part of the registration statement, does not contain all the information set forth in the registration statement or the exhibits and schedules which are part of the registration statement, portions of which are omitted as permitted by the rules and regulations of the SEC. Statements made in this prospectus supplement and accompanying prospectus regarding the contents of any contract or other document are summaries of the material terms of the contract or document. With respect to each contract or document filed as an exhibit to the registration statement, reference is made to the corresponding exhibit.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any of these documents at the public reference facilities of the SEC at 450 Fifth Street, N.W., Washington, D.C. 20549. Copies of all or any portion of the registration statement may be obtained from the SEC at prescribed rates. Information on the public reference facilities may be obtained by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains a web site that contains our reports, proxy and information statements and other information that we file through the SEC s EDGAR System, including our registration statement and the exhibits filed with the registration statement. The web site can be accessed at http://www.sec.gov. Additional information about us is available on our website at http://www.arenaresourcesinc.com.

INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring you to those documents that we have previously filed with the SEC or documents that we will file with the SEC in the future. The information incorporated by reference is considered to be part of this prospectus supplement, and later information that we file with the SEC will automatically update and supersede this information. This prospectus supplement incorporates by reference the following documents (or portions thereof) set forth below that we have previously filed with the SEC:

Our Annual Report on Form 10-K, for the year ended December 31, 2007, filed March 12, 2008 (SEC File No. 001-31657);

Our Quarterly Report on Form 10-Q, for the quarter ended March 31, 2008, filed May 7, 2008 (SEC File No. 001-31657); and

Our Current Report on Form 8-K filed on May 23, 2008 (SEC File No. 001-31657).

All documents filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the initial filing of the registration statement that contains this prospectus supplement and the accompanying prospectus and prior to the date of the termination of the offering of the common stock offered hereby shall be deemed to be incorporated by reference into this registration statement and to be a part hereof from the date of filing of such documents. Any statement contained herein or in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus supplement to the extent that a statement contained herein or in any document which is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

We will provide without charge to each person to whom a prospectus supplement and accompanying prospectus is delivered, upon written or oral request of any such person, a copy of any or all of the foregoing documents incorporated herein by reference (other than exhibits to such documents). Written requests should be directed to William R. Broaddrick, Chief Financial Officer, 6555 S. Lewis Ave., Tulsa, Oklahoma, 74136. Telephone requests may be directed to 1-918-747-6060.

S-9

Arena Resources, Inc.

PROSPECTUS SUPPLEMENT

 $May \ , 2008$

Dahlman Rose & Company

Tudor, Pickering, Holt & Co.

Capital One Southcoast, Inc.

May , 2008 16

PROSPECTUS

ARENA RESOURCES INC.

Through this prospectus, we or any selling shareholder may periodically offer shares of our common stock.

The prices and other terms of the shares of common stock that we or any selling shareholder will offer will be determined at the time of their offering and will be described in a supplement to this prospectus.

Our common stock is currently listed on The New York Stock Exchange under the symbol ARD .

The shares of common stock issued under this prospectus may be offered directly or through underwriters, agents or dealers. The names of any underwriters, agents or dealers will be included in a supplement to this prospectus.

An investment in shares of our common stock involves risks. See the section entitled Risk Factors beginning on page 3 of this prospectus, contained in the applicable prospectus supplement and in the documents incorporated by reference herein and therein.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is May 28, 2008

TABLE OF CONTENTS

	Page
About this Prospectus	ii
Cautionary Note Regarding Forward-Looking Statements	ii
Prospectus Summary	1
Risk Factors	3
Use of Proceeds	4
Dividend Policy	4
Capitalization	4
Description of Securities	5
Plan of Distribution	5
Legal Matters	6
Experts	6
Where You Can Find More Information	7
Incorporation of Documents by Reference	7
i	

TABLE OF CONTENTS 18

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, using an automatic shelf—registration process. Under the shelf registration process, we, or any selling shareholder may sell shares of our common stock described in this prospectus in one or more offers.

This prospectus provides you with a general description of the shares we offer. This prospectus does not contain all the information set forth in the registration statement as permitted by the rules of the SEC. Each time we offer shares, in addition to this prospectus we will provide you with a prospectus supplement that contains specific information about the shares being offered. The prospectus supplement may also add, update or change information contained in this prospectus.

An investment in shares of our common stock involves risks. See the section entitled Risk Factors beginning on page 3 of this prospectus, contained in the applicable prospectus supplement and in the documents incorporated by reference herein and therein.

You should read this prospectus and any prospectus supplement as well as additional information described under Where You Can Find More Information and Documents Incorporated by Reference on page 7.

CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus contains forward-looking statements that are subject to a number of risks and uncertainties, many of which are beyond our control, which may include statements about our:

business strategy;
reserves;
financial strategy;
production;
uncertainty regarding our future operating results;
plans, objectives, expectations and intentions contained in this prospectus that are not historical.

Such statements involve risks and uncertainties, including, but not limited to, those relating to our dependence on our exploratory drilling activities, the volatility of oil and natural gas prices, the need to replace reserves depleted by production, operating risks of oil and natural gas operations, our dependence on our key personnel, factors that affect our ability to manage our growth and achieve our business strategy, technological changes, our significant capital requirements, the potential impact of government regulations, adverse regulatory determinations, litigation, competition, the uncertainty of reserve information and future net revenue estimates, property acquisition risks, industry partner issues, availability of equipment, weather and other factors detailed herein and in our other filings with the SEC.

ii

All statements, other than statements of historical fact included in this prospectus, regarding our strategy, future operations, financial position, estimated revenues and losses, projected costs, prospects, plans and objectives of management are forward-looking statements. When used in this prospectus, the words could, believe, anticipate, intend, may, estimate, expect, project and similar expressions are intendentify forward-looking statements, although not all forward-looking statements contain such identifying words. All forward-looking statements speak only as of the date of this prospectus. You should not place undue reliance on these forward-looking statements. Although we believe that our plans, intentions and expectations reflected in or suggested by the forward-looking statements we make in this prospectus are reasonable, we can give no assurance that these plans, intentions or expectations will be achieved. We disclose important factors that could cause our actual results to differ materially from our expectations under Risk Factors and elsewhere in this prospectus. These cautionary statements qualify all forward-looking statements attributable to us or persons acting on our behalf.

ii

PROSPECTUS SUMMARY

This summary highlights information contained or incorporated by reference in this prospectus. You should read this entire prospectus carefully, including Risk Factors and the documents incorporated by reference, before making an investment decision with respect to our common stock. Unless the context otherwise requires, references in this prospectus to Arena, we, us, our or ours refer to Arena Resources, Inc.

You should rely only on the information contained in this prospectus, including the documents incorporated by reference. We have not authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it.

About Our Company

We are engaged in oil and natural gas acquisition, exploration, development and production, with activities currently in Oklahoma, Texas, New Mexico and Kansas. Our current strategy is on developing our existing properties, while continuing to pursue acquisitions of oil and gas properties that provide immediate cash flow with upside development potential.

Since our inception in August 2000, we have built our asset base and achieved growth primarily through property acquisitions. From our inception through December 31, 2007, we have increased our proved reserves to approximately 55.4 million barrels of oil equivalent, or Boe. These reserves have been included in our Annual Reports on Form 10-K as filed with the SEC, but have not been reported to any other federal agency. As of December 31, 2007, our estimated proved reserves had a pre-tax present value of future net revenues before income taxes discounted at 10%, or PV10, of approximately \$1.98 billion and a Standardized Measure of Discounted Future Net Cash Flows of approximately \$1.28 billion. The difference between these two amounts is the effect of income taxes. The Company presents the pre-tax PV-10 value, which is a non-GAAP financial measure, because it is a widely used industry standard which we believe is useful to those who may review this prospectus or our Annual Report on Form 10-K when comparing our asset base and performance to other comparable oil and gas exploration and production companies. We spent approximately \$302.8 million on acquisitions and capital projects during 2005, 2006 and 2007.

We have a portfolio of oil and natural gas reserves, with approximately 86% of our proved reserves consisting of oil and approximately 14% consisting of natural gas. Of those reserves approximately 26% of our proved reserves are classified as proved developed producing, or PDP, approximately 6% of our proved reserves are classified as proved developed non-producing, or PDNP, approximately 4% are classified as proved developed behind pipe, or PDBP, and approximately 64% are classified as proved undeveloped, or PUD.

Our estimates of proved reserves and related valuations as of December 31, 2007 are based on an analysis prepared by Lee Keeling and Associates, Inc., independent petroleum geological engineers.

Although our focus will be on development of our existing properties, we also intend to continue seeking acquisition opportunities which complement our current portfolio. We intend to fund our development activity primarily through use of a portion of the proceeds of future offerings, from cash flow from operations and cash on hand; however, potential drawings on our credit facility would also be available for development projects or future acquisitions.

1

About Our Company 21

Recent Developments Subsequent to Our Year Ending December 31, 2007

Subsequent to December 31, 2007, in addition to matters that were reported by us in our Annual Report on Form 10-K for the year ended December 31, 2007, or which were thereafter reported in our Quarterly Report on Form 10-Q for the quarter ended March 31, 2008, or in our Current Report on Form 8-K filed with the SEC on May 23, 2008 (see, Incorporation of Certain Documents by Reference), the following have occurred:

We borrowed an additional \$5,500,000 under our credit facility, which we have used or intend to use for continued development activities.

We issued an option to Mr. David Ricks, our Vice President of Operations, for 50,000 shares of our common stock. This option vests at the rate of 20% per year, and is exercisable at \$45.68 per share. The fair value of this option was \$915,270 based on the following assumptions: 3.09% interest rate, 45.12% volatility, 4.25 average expected life, and 0% dividend rate.

Common Stock

We intend to offer shares of our common stock, par value \$0.001 per share. In this prospectus we provide a general description of, among other things, our dividend policy and the methods by which the shares may be sold.

Corporate Information

Arena Resources, Inc. was incorporated in Nevada on August 31, 2000. Our principal executive offices are located at 6555 South Lewis Avenue, Tulsa, Oklahoma 74136, and our telephone number is (918) 747-6060.

2

RISK FACTORS

An investment in our common stock involves a high degree of risk. You should carefully consider the following risks and the risks and the discussion of risks under the heading Risk Factors in our Annual Report on Form 10-K for the year ended December 31, 2007 and the documents we have incorporated by reference in this prospectus that summarize the risks that may materially affect our business before making an investment in our common stock. Please see Incorporation of Certain Documents by Reference . In addition, you should also consider carefully the risks set forth under the heading Risk Factors in any prospectus supplement before investing in the securities offered by this prospectus. The occurrence of one or more of those risk factors could adversely impact our results of operations or financial condition.

Risks Relating to Our Business

If our indebtedness increases, it could reduce our financial flexibility.

We have a \$150 million credit facility in place with a current borrowing base of \$100 million. As of May 21, 2008, we had \$46,000,000 outstanding on our credit facility. If in the future we further utilize this facility, the level of our indebtedness could affect our operations in several ways, including the following:

a significant portion of our cash flow could be used to service the indebtedness,

a high level of debt would increase our vulnerability to general adverse economic and industry conditions, the covenants contained in our credit facility limit our ability to borrow additional funds, dispose of assets, pay dividends and make certain investments,

a high level of debt could impair our ability to obtain additional financing in the future for working capital, capital expenditures, acquisitions, general corporate or other purposes.

Although we intend to utilize the proceeds from an offering under this prospectus, together with our anticipated cash flow from operations, to fund our projected capital expenditures and other operating costs through the remainder of this year, if market or other conditions cause us to delay selling all or any part of the shares offered hereunder, such delay could potentially result in our having to draw additional amounts under our line of credit.

In addition, our bank borrowing base is subject to semi-annual redeterminations. We could be forced to repay a portion of our bank borrowings due to redeterminations of our borrowing base. If we are forced to do so, we may not have sufficient funds to make such repayments. If we do not have sufficient funds and are otherwise unable to negotiate renewals of our borrowings or arrange new financing, we may have to sell significant assets. Any such sale could have a material adverse effect on our business and financial results.

The loss of senior management could adversely affect us.

To a large extent, we depend on the services of our senior management. The loss of our senior management Tim Rochford, our Chairman or Phillip Terry, our Chief Executive Officer could have a material adverse effect on our operations. While we have obtained key man life insurance policies on Mr. Rochford, any amount that we may recover under such policy may not adequately compensate us for the loss of the services of Mr. Rochford. We do not have employment agreements with either Mr. Rochford or Mr. Terry.

Risks Relating to Our Common Stock

The market price of our stock may be affected by a perceived market overhang.

Because we can offer an indeterminate number of shares of our common stock pursuant to the registration statement of which this prospectus is a part, it is possible that the market price of our common stock could be adversely impacted as a result of the uncertainty regarding the number of shares of our registered common stock that can be issued relatively easily into the market in the future at unknown prices.

Also, approximately 666,068 shares of our common stock are restricted shares under Rule 144, which could be currently sold under the provisions of that Rule.

Finally, as of May 21, 2008, there are warrants outstanding to purchase 258,708 shares of common stock, as well as options to purchase 2,680,000 shares of common stock (of which, options to acquire 875,000 shares are currently exercisable, with options to acquire an additional 980,000 shares vesting over the next two years, with the balance vesting over the next five years).

Substantial sales of our common stock, including shares issued upon the exercise of outstanding options and warrants, in the public market, or the perception that these sales could occur, may have a depressive effect on the market price of our common stock. Such sales or the perception of such sales could also impair our ability to raise capital or make acquisitions through the issuance of our common stock.

USE OF PROCEEDS

Unless we specify otherwise in any prospectus supplement, we will use the net proceeds from the sale of common stock offered in this prospectus to repay existing debt and for capital expenditures, which may include drilling and development of our properties, possible acquisitions of additional properties and any other purposes that we may specify. We may invest net proceeds temporarily until we use them for their stated purpose. We will not receive any proceeds from sales by selling shareholders.

DIVIDEND POLICY

We have never declared or paid any cash dividends on our common stock and we do not anticipate paying cash dividends in the foreseeable future. We currently intend to retain our earnings for use in our business. Future dividends on our common stock, if any, will be at the discretion of our board of directors and will depend on, among other things, our operations, capital requirements and surplus, general financial condition, contractual restrictions and such other factors as our board of directors may deem relevant. In addition, our credit facility prohibits us from paying dividends.

CAPITALIZATION

A prospectus supplement will include information on the Company s capitalization.

4

CAPITALIZATION 24

DESCRIPTION OF SECURITIES

The securities to be registered pursuant to this Registration Statement are of the same class as those securities previously registered by us on Form SB-2 (File No. 333-113712), as filed with the SEC on March 18, 2004, as amended, including the Rule 424(b)(1) prospectus filed August 10, 2004, and which description was incorporated by reference in our Registration Statement on Form 8-A12B filed August 10, 2004 (File No. 001-31657).

PLAN OF DISTRIBUTION

We may sell or distribute the securities included in this prospectus and any selling shareholders may sell our common stock through underwriters, through agents, to dealers, in private transactions, at market prices prevailing at the time of sale, at prices related to the prevailing market prices, or at negotiated prices.

In addition, we or selling shareholders may sell some or all of our common stock included in this prospectus through:

a block trade in which a broker-dealer may resell a portion of the block, as principal, in order to facilitate the transaction; purchases by a broker-dealer, as principal, and resale by the broker-dealer for its account; or ordinary brokerage transactions and transactions in which a broker solicits purchasers.

In addition, we or selling shareholders may enter into option or other types of transactions that require us or them to deliver our common stock to a broker-dealer, who will then resell or transfer the common stock under this prospectus. We may enter into hedging transactions with respect to our securities. For example, we may:

enter into transactions involving short sales of the shares of our common stock by broker-dealers; sell common stock short themselves and deliver the shares to close out short positions; enter into option or other types of transactions that require us to deliver common stock to a broker-dealer, who will then resell or transfer the common stock under this prospectus; or loan or pledge the common stock to a broker-dealer, who may sell the loaned shares or, in the event of default, sell the pledged shares.

We may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third party may use securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter and, if not identified in this prospectus, will be identified in the applicable prospectus supplement (or a post-effective amendment). In addition, we may otherwise loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus. Such financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

Any broker-dealers or other persons acting on our behalf or the behalf of selling shareholders that participates with us or the selling shareholders in the distribution of the securities may be deemed to be underwriters and any commissions received or profit realized by them on the resale of the securities may be deemed to be underwriting discounts and commissions under the Securities Act of 1933, as amended, or the Securities Act. As of the date of this prospectus, we are not a party to any agreement, arrangement or understanding between any broker or dealer and us with respect to the offer or sale of the securities pursuant to this prospectus.

At the time that any particular offering of securities is made, to the extent required by the Securities Act, a prospectus supplement will be distributed, setting forth the terms of the offering, including the aggregate number of securities being offered, the purchase price of the securities, the initial offering price of the securities, the names of any underwriters, dealers or agents, any discounts, commissions and other items constituting compensation from us and any discounts, commissions or concessions allowed or reallowed or paid to dealers.

Underwriters or agents could make sales in privately negotiated transactions and/or any other method permitted by law, including sales deemed to be an at-the-market offering as defined in Rule 415 promulgated under the Securities Act, which includes sales made directly on or through the New York Stock Exchange, the existing trading market for our common stock, or sales made to or through a market maker other than on an exchange.

We will bear costs relating to all of the securities being registered under this Registration Statement.

As a result of requirements of the Financial Industry Regulatory Authority (FINRA), formerly the National Association of Securities Dealers, Inc. (NASD), the maximum commission or discount to be received by any FINRA member or independent broker/dealer may not be greater than eight percent (8%) of the gross proceeds received by us or any selling shareholder for the sale of any securities. If more than 10% of the net proceeds of any offering of common shares made under this prospectus will be received by FINRA members participating in the offering or affiliates or associated persons of such FINRA members, the offering will be conducted in accordance with NASD Conduct Rule 2710(h).

LEGAL MATTERS

The validity of the shares of common stock issued in this offering will be passed upon for us by the law firm of Johnson, Jones, Dornblaser, Coffman & Shorb, P.C., Tulsa, Oklahoma. Certain other matters will be passed upon for the underwriters by Seward & Kissel LLP, New York, New York.

EXPERTS

The consolidated financial statements and management s report on the effectiveness of internal control over financial reporting incorporated in this prospectus by reference from the Company s Annual Report on Form 10-K have been audited by Hansen, Barnett & Maxwell P.C., an independent registered public accounting firm, as stated in their reports, which are incorporated by reference.

6

EXPERTS 26

The information incorporated by reference into this prospectus regarding estimated quantities of oil and natural gas reserves and the discounted present value of future pre-tax cash flows therefrom is based upon estimates of such reserves and present values prepared by or derived from estimates included in our Annual Report on Form 10-K for the year ended December 31, 2007, prepared by Lee Keeling and Associates, Inc., independent petroleum engineering consultants, incorporated by reference. The information contained in this prospectus under the heading About Our Company in the Prospectus Summary regarding the estimated quantities of oil and natural gas reserves and the discounted present value of future pre-tax cash flows therefrom is based upon estimates of such reserves and present values as of December 31, 2007, prepared by or derived from the Appraisal of Oil and Gas Properties dated December 31, 2007, prepared by Lee Keeling and Associates, Inc. All such information in this prospectus has been included in reliance on the authority of said firm as experts in petroleum engineering.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC under the Securities Act a registration statement on Form S-3 in connection with this offering. This prospectus, which constitutes part of the registration statement, does not contain all the information set forth in the registration statement or the exhibits and schedules which are part of the registration statement, portions of which are omitted as permitted by the rules and regulations of the SEC. Statements made in this prospectus regarding the contents of any contract or other document are summaries of the material terms of the contract or document. With respect to each contract or document filed as an exhibit to the registration statement, reference is made to the corresponding exhibit.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any of these documents at the public reference facilities of the SEC at 450 Fifth Street, N.W., Washington, D.C. 20549. Copies of all or any portion of the registration statement may be obtained from the SEC at prescribed rates. Information on the public reference facilities may be obtained by calling the SEC at 1-800-SEC-0330. In addition, the SEC maintains a web site that contains our reports, proxy and information statements and other information that we file through the SEC s EDGAR System, including our registration statement and the exhibits filed with the registration statement. The web site can be accessed at http://www.sec.gov. Additional information about us is available on our website at http://www.arenaresourcesinc.com.

INCORPORATION OF DOCUMENTS BY REFERENCE

The SEC allows us to incorporate by reference the information we file with it, which means that we can disclose important information to you by referring you to those documents that we have previously filed with the SEC or documents that we will file with the SEC in the future. The information incorporated by reference is considered to be part of this prospectus, and later information that we file with the SEC will automatically update and supersede this information. This prospectus incorporates by reference the following documents (or portions thereof) set forth below that we have previously filed with the SEC:

Our Annual Report on Form 10-K, for the year ended December 31, 2007, filed March 12, 2008 (SEC File No. 001-31657);

Our Quarterly Report on Form 10-Q, for the quarter ended March 31, 2008, filed May 7, 2008 (SEC File No. 001-31657)

Our Current Report on Form 8-K filed on May 23, 2008 (SEC File No. 001-31657); and

7

The description of our common stock which is contained under the caption Description of Securities , in our Registration Statement on Form SB-2 (SEC File No. 333-113712) originally filed on March 18, 2004, as amended, including the Rule 424(b)(1) prospectus filed August 10, 2004 (Commission File No. 333-113712) (which description was incorporated by reference in our Registration Statement on Form 8A filed August 10, 2004 (SEC File No. 001-31657)).

All documents filed by us pursuant to Sections 13(a), 13(c), 14 and 15(d) of the Exchange Act after the initial filing of the registration statement that contains this prospectus and prior to the date of the termination of the offering of the common stock offered hereby shall be deemed to be incorporated by reference into this registration statement and to be a part hereof from the date of filing of such documents. Any statement contained herein or in a document incorporated or deemed to be incorporated by reference herein shall be deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained herein or in any document which is or is deemed to be incorporated by reference herein modifies or supersedes such statement. Any statement so modified or superseded shall not be deemed, except as so modified or superseded, to constitute a part of this prospectus.

We will provide without charge to each person to whom a prospectus is delivered, upon written or oral request of any such person, a copy of any or all of the foregoing documents incorporated herein by reference (other than exhibits to such documents). Written requests should be directed to William R. Broaddrick, Chief Financial Officer, 6555 S. Lewis Ave., Tulsa, Oklahoma, 74136. Telephone requests may be directed to 1-918-747-6060.

[Back of prospectus]

Arena Resources, Inc.

PROSPECTUS

May 28, 2008

May 28, 2008 29