

NEWS RELEASE

Positive drill results east and above historic Boston-Richardson belt at Goldboro confirm the discovery of new stacked gold zones

Total strike length of shallow mineralization now extends to 625 metres

Montreal, Canada, December 16, 2008: OREX EXPLORATION INC. (TSX-V: OX) (FSE: O5D) would like to provide its shareholders with initial assay results from the first two holes of the Phase 2B diamond drilling program in the East Goldbrook sector on the Company's wholly-owned Goldboro Gold Project in north eastern Nova Scotia.

Selected higher grade gold assay intervals for BR-08-17 and 18* are tabulated as follows:

HOLE #	FROM (m)	TO (m)	CORE LENGTH (m)	GOLD GRADE (g/t)	ZONE IDENTIFICATION	MS CHECKS
BR-08-17	52.0	59.0	7.0	1.19	BR2 – South Limb	
including	52.5	55.5	3.0	2.17		
including	52.5	53.0	0.5	8.90		
	64.0	76.5	12.5	1.08	BR1 – South Limb	
including	74.5	75.0	0.5	14.85		
	87.5	98.5	11.0	0.71	BR1 – South Limb	
	140.0	150.5	10.5	3.35	BR1 – North Limb	
including	144.0	149.5	5.5	5.40		
including	144.5	145.0	0.5	7.02		Metallic Screen
and	146.0	146.5	0.5	19.40		
	164.0	168.0	4.0	4.45	BR2 – North Limb	
including	164.0	164.25	0.25	19.05		Metallic Screen
and	164.25	164.5	0.25	28.90		Metallic Screen
and	167.5	168.0	0.5	8.65		
BR-08-18	82.5	101.5	19.0	1.62	BR2 – South Limb	
including	86.0	91.0	5.0	2.23		
including	88.5	89.0	0.5	14.55		
and	95.0	100.5	5.5	3.04		
including	95.0	95.5	0.5	12.05		
and	100.0	100.5	0.5	16.60		
	121.0	127.5	6.5	1.39	BR1 – South Limb	
including	123.75	124.0	0.25	7.19		
and	126.0	126.5	0.5	4.70		
	167.5	174.5	7.0	2.02	BR1 – North Limb	

* Assay and QA/QC protocols are outlined below. Assay results reported in this news release are current for samples processed and assayed by the laboratory.

Mr. Mark Billings, President and CEO of Orex, stated, “We at Orex are extremely pleased with the presence of additional shallow mineralization above the historic Boston-Richardson Belt. Results from holes BR-08-17 and 18 show good grades and suggest at least two new gold zones occur above the Boston-Richardson. These are the first modern NI 43-101-compliant results from this part of Goldboro. The “123” and other zones of mineralization have been intersected by drill results over a strike length of 425 m from surface in the Ramp area

to a depth of 200 metres below the historic Boston-Richardson mine workings. We have now identified similar shallower zones above the Boston-Richardson Belt over an additional 200m strike length to the east and the remaining 14 holes from the Phase 2B campaign are investigating the down-plunge continuity of these zones a further 300m eastward to the historic East Goldbrook mine. Results from the remaining holes in Phases 2B and 2C could extend the total strike length of shallow (above 200m depth) zones of mineralization to over 1 kilometre.”

Annual and Special Meeting of Shareholders

The Company held its Annual and Special Meeting of Shareholders in Montreal last Thursday, December 11, 2008. Management of Orex is pleased to report that shareholders overwhelmingly approved all of the resolutions that were outlined in the Company’s Management Proxy Circular dated November 5, 2008.

Shareholders of Orex approved the Shareholder Rights Plan, which the Board of Directors of Orex believes is in the best interests of the shareholders and the Company. This Rights Plan will provide the Board of Directors and the shareholders of Orex more time to fully consider any unsolicited takeover bid and gives the Board of Directors time to pursue alternatives to maximize shareholder value, if appropriate, in the event of an unsolicited takeover bid. The Shareholder Rights Plan is subject to approval by the TSX Venture Exchange.

The following persons were re-elected to the Board of Directors at the Meeting: Ali Abbas Al Hazeem, Mark Billings, David Hatchette, Louis Lapointe and Claude Poulin.

Orex is pleased to welcome Michael A. Dehn to its Board of Directors, who was newly elected at the Meeting. Mr. Dehn is the President and Director of Avanti Management and Consulting Limited. With over 17 years of experience in the mining industry, Mr. Dehn was President, CEO and Director of Nayarit Gold Inc. (TSX-V: NYG) from September 2005 to April 2007. From 1995 to 2005, he worked as an exploration geologist and later as a Senior Geologist with Goldcorp Inc. (TSX: G). Mr. Dehn was actively involved in Goldcorp’s successful exploration programs at the Red lake Gold Camp, as well as all of Goldcorp’s joint ventures in the area.

The Company would like to thank Jean Lafleur, P.Ge., for his contributions as a Director of Orex. Mr. Lafleur will remain involved with Orex and committed to the Goldboro drilling campaign as a Technical Advisor to the Company.

In accordance with its stock option plan, the Company issued 450,000 stock options on December 11 to Directors and consultants at a strike price of \$0.10 for 5 years. At the Meeting, shareholders of Orex approved a change to the Company’s stock option plan by increasing to 9,900,000 the maximum number of common shares that Orex can reserve and issue within the context on the plan.

Private Placement

Orex announces that it will conduct a non-brokered private placement of Flow-Through and Non-Flow-Through Units of the Company. Orex intends to sell on a best efforts basis up to 20,000,000 Flow-Through Units of the Company at \$0.075 for gross proceeds of up to \$1,500,000, and up to 16,666,667 Non-Flow-Through Units of the Company at \$0.06 for gross proceeds of up to \$1,000,000, for a total private placement of up to \$2,500,000.

Each Flow-Through Unit consists of one Flow-Through Share and one common share purchase warrant, which is exercisable for one common share at \$0.10 for the first year and at \$0.15 for the second year. Each Non-Flow-Through Unit consists of one Non-Flow-Through Share and one common share purchase warrant, which is exercisable for one common share at \$0.10 for three (3) years after closing.

Proceeds from the sale of the Flow-Through Units will be used to fund exploration and development activities at the Company’s Goldboro project. Proceeds from the sale of the Non-Flow-Through Units will be used for exploration and development, and for working capital purposes.

Orex will pay commissions and finder's fees in connection with this private placement, in accordance with the rules and regulations of the TSX Venture Exchange and applicable regulatory authorities. The financing is subject to conditional acceptance by the TSX-V.

The 2008 Goldboro drilling campaign

The **Phase 2A** drill program (BR-08-01 to 16) has nearly doubled the strike length of the gold mineralization a further 200m between the Goldboro Ramp Resources eastward towards the Boston-Richardson Mine, outside the current limits of the defined NI 43-101 Mineral Resources (the "Resources") in the Goldboro Ramp Area (3,105,000 tonnes grading 2.36 g/t gold in the Measured and Indicated Resources categories). The campaign targeted the down-plunge extensions to the "123", "56", "78" and other gold zones as they plunge shallowly to the east beneath the historic Boston-Richardson Mine at vertical depths ranging from -75m to -200m. BR-08-01 to 15 were drilled from south to north along a series of 10 sections spaced at 25m from 8775E to 8975E. BR-08-16 was drilled from west to east in attempts to drill down-plunge within the "123" hinge to evaluate continuity within the zone of mineralization, and produced several narrow high grade intersections from 135m along the upper contact of the "123" hinge zone before entering the zone at 189m along the south limb and deviating further southward out the south limb at 215m.

The **Phase 2B** drill program (BR-08-17 to 32) covered an additional 350m strike length extending from the historic Boston-Richardson Mine eastward towards the historic East Goldbrook Shaft. All holes were drilled from south to north on sections 9150E to 9500E spaced at 50m and targeted the down-plunge hinge of the historic Boston-Richardson Zone as well as other zones *above* the Boston-Richardson that plunge similarly eastwards towards East Goldbrook. Historic drill intersections in this area suggest the presence of similar gold zones above the Boston-Richardson that may correlate and form continuous zones with the East Goldbrook. Final assay results are now pending for 14 of 16 holes.

The **Phase 2C** drill program (BR-08-33 to 44) was recently completed. Logging and sampling of drill holes is in progress and all samples are expected to be in the laboratory by year end with results expected early in 2009. The Phase 2C drill program covered a 150m strike length beneath the Goldboro Ramp on a series of sections spaced at 25m apart from 8550E to 8700E. The program was designed to investigate gold potential of the deeper "56", "78" and "910" gold zones as they trend up-plunge just west of the ramp area. These holes will in-fill and potentially add to existing resources in the Ramp area. In addition, Phase 2C included two step-out holes to the south intended to explore for new gold zones as well as a possible fault displacement of the Boston-Richardson Antiform Structure.

In 2008 and 2009, the Company will drill the gold-bearing Boston-Richardson Antiform Structure over its entire 2.5km length in successive drill programs from Phases 2A to 2E totaling 19,528m in 80 drill holes. Final results from the Phases 2A, 2B and 2C are all expected by early 2009. Once all results are received, Orex plans to update the geological and resource model and produce an updated Mineral Resource estimate.

Assay Protocols

Sample preparation and assaying are being performed by the *ALS Laboratories Group* using conventional Fire-Assaying with an Atomic Absorption Spectrometry finish. The NQ-sized drill core is being logged, sampled, bagged, tagged and sealed at the Goldboro site by qualified personnel. Samples were inserted in numbered pails, sealed and shipped in batches to the laboratory in Timmins by commercial trucking. Sample pails were opened at the laboratory; sample bags were checked, contents dried and weighed; crushed to -10 mesh (2mm), followed by pulverizing a 250 gram sample fraction to -150 mesh size (0.125mm), from which a 50 gram sample of the pulp was fire assayed. Pulp duplicate check assays are completed in each batch of samples assayed and Total Metallic Screen assays for samples containing visible gold are included in the initial assay protocols. Field blank and certified reference standards are also routinely included to monitor the laboratories' performance.

After review of initial assay results and reconciliation with the logged zones of mineralization, specific samples are being identified for re-assaying by the MS method while other samples will have a second pulp prepared from the coarse reject and re-assayed by the AAS Method. Multiple assay determinations provide a more accurate determination of gold content in the samples.

About Orex Exploration Inc.

Orex Exploration Inc. is a Canadian based junior resource and exploration company trading under the symbol OX on the TSX Venture Exchange and O5D on the Frankfurt Stock Exchange. The Company holds a 100% interest in the Goldboro Gold Project in Nova Scotia. You are invited to browse the Company's website at www.orexexploration.ca.

The information contained in this news release has been prepared by Mr. Jean Lafleur, M. Sc., P. Geo., Technical Advisor at Orex. The drill campaign, core descriptions and assay sample preparations are being done under the supervision of Billy Shaw, P. Geo., of W.G. Shaw & Associates (Antigonish, Nova Scotia) and Mr. Alex Horvath, P. Eng., of A.S. Horvath Engineering Inc. (Ottawa, Ontario). All individuals are Qualified Persons under National Instrument 43-101 regulations.

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OREX EXPLORATION INC.
2008 DIAMOND DRILLING CAMPAIGN

