CENTRAL SUN MINING INC. Form 6-K September 09, 2008

FORM 6-K

UNITED STATES SECURITIES AND EXCHANGE COMMISSION Washington, D.C. 20549

Report of Foreign Issuer

Pursuant to Rule 13a-16 or 15d-16 of the Securities Exchange Act of 1934

For the month of September 2008

Commission File Number 001-32412

CENTRAL SUN MINING INC.

(Translation of registrant's name into English)

500 – 6 Adelaide St. East Toronto, Ontario, Canada M5C 1H6 (Address of principal executive offices)

Indicate by check mark whether the registrant files or will file annual reports under cover Form 20-F or Form 40-F

Form o Form 40-F x

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(1):

Note: Regulation S-T Rule 101(b)(1) only permits the submission in paper of a Form 6-K if submitted solely to provide an attached annual report to security holders.

Indicate by check mark if the registrant is submitting the Form 6-K in paper as permitted by Regulation S-T Rule 101(b)(7):

Note: Regulation S-T Rule 101(b)(7) only permits the submission in paper of a Form 6-K if submitted to furnish a report or other document that the registrant foreign private issuer must furnish and make public under the laws of the jurisdiction in which the registrant

is incorporated, domiciled or legally organized (the registrant's "home country"), or under the rules of the home country exchange on which the registrant's securities are traded, as long as the report or other document is not a press release, is not required to be and has not been distributed to the registrant's security holders, and, if discussing a material event, has already been the subject of a Form 6-K submission or other Commission filing on EDGAR.

Indicate by check mark whether by furnishing the information contained in this Form, the registrant is also thereby furnishing the information to the Commission pursuant to rule 12g3-2(b) under the Securities Exchange Act of 1934.

Yes o No x

If "Yes" is marked, indicate below the file number assigned to the registrant in connection with Rule 12g3-2(b) 82-

EXHIBIT NO. DESCRIPTION

99.1 Press Release dated September 8, 2008

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

CENTRAL SUN MINING INC.

Date: September 8, 2008

By: /s/ Denis C. Arsenault

Denis C. Arsenault, Chief Financial Officer

EXHIBIT 99.1

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FOR IMMEDIATE RELEASE September 8, 2008 TSX: CSM, CSM.WT AMEX: SMC

CENTRAL SUN EXPLORATION UPDATE: MORE HIGH GRADE GOLD INTERSECTED AT LIMON; RESOURCE DEFINITION IN PROGRESS AT OROSI

Central Sun Mining Inc. (Central Sun or the Company) is pleased to provide an update on its on-going exploration program at the Limon, Orosi and Mestiza projects in Nicaragua.

Limon Mine Area

Drilling has continued on the new Santa Pancha southern extension to follow up on the promising results from the initial discovery drilling previously reported and as shown on vertical longitudinal section below in Figure 1. Central Sun has completed 22 diamond drill holes totaling 6,505 metres. The Santa Pancha orebody, which has the highest grade within the Limon Mine area deposits, is currently being mined on the 100 metre level at a reserve grade of approximately 5.6 g Au/t.

Highlights from new results from the resource definition drilling program in the south extension area are:

9.83 g Au/t over true width of 6.4 metres in Hole LM-08-19198.69 g Au/t (7.90 g/t highs cut to 25 g/t) over true width of 5.3 metres in Hole LM-08-226.05 g Au/t over true width of 18.0 metres in Hole LM-08-21

The intersection in Hole LM-08-22 was very high grade due to an exceptional sample which returned 1,424 grams gold per tonne over a 0.75 metre core length. While the cut value of 7.90 grams gold per tonne is probably more likely to be representative of the overall grade in the general area of the hole, it does indicate the excellent potential for very high grade areas to occur in the Santa Pancha zone.

In addition to the definition drilling, three (3) holes were completed to test the area south of the 250 foot level (about 75 metres below surface) between the #2 and #5 shafts as shown in Figure 1. Hole LM-08-21 intersected 6.05 grams gold per tonne over a true width of 18.0 metres about 15 metres south of the limit of the old stope indicating that additional reserves can be defined from this level. Complete results are given in Table 1A below.

Dr. Bill Pearson, P.Geo., Executive Vice President, Exploration commented, The closer spaced drilling is providing much better definition of the distribution of gold mineralization within this extensive structure and we are continuing to have very good results. Our experience from underground mining is that the mine grades tend to be higher than those indicated in the drill holes. The drilling on the Santa Pancha south extension zone will be completed shortly and once all results are received, we will begin estimation of a new mineral resource.

The Santa Pancha structure, located about 4 kilometres east of the Limon processing plant, strikes N20E and extends for approximately 2.5 kilometres along strike. The target zone being tested as shown on the longitudinal section in Figure 1 extends for approximately 650 metres along strike from the No. 2 shaft area southwards to the No. 8 shaft. The drill holes completed to date have confirmed that the favourable structure extends to a vertical depth of at least 350 metres.

Orosi Mine Area

Exploration diamond drilling totaling 11,713 metres in 66 holes has been completed to date at Orosi. This program has focusing on testing targets within approximately five (5) kilometers of the processing plant. Targets being tested as shown below in Figure 2 include San Juan, Los Angeles, Quernos do Oro, Victoria-Santa Maria, and the Mojon SW and NE Extensions. In addition, eight (8) reconnaissance diamond drill holes totaling 1,678 metres have been completed to test the induced polarization geophysical anomalies in the Gobierno area that cover a potential strike extension of 3 kilometres of the Mojon-Crimea and associated structures northeast of the mine.

Central Sun is currently converting the Orosi open pit mine from a heap leach operation to a conventional milling operation. Production is expected to start in the first quarter of 2009 at a rate of approximately 85,000 ounces of gold per year. Proven and probable mineral reserves primarily in the Mojon-Crimea zone are estimated by Scott Wilson Roscoe Postle Associates Inc. at 11.0 million tonnes at 1.44 grams of gold per tonne containing 510,000 ounces of gold (see Press Release dated May 8, 2008).

Drilling of 2,036 metres in 12 holes has been completed to test the San Juan vein structure, a potential new open pit mining target, located about 5 kilometres south of the mine area as shown in Figure 2. These holes tested the structure over approximately an 800 metre strike length to a vertical depth of 180 metres. All but one hole intersected gold mineralized quartz veins/vein breccias. The final two holes in this program (SJ-08-12 and -13) returned 3.27 g Au/t over a true width of 11.5m and 3.60 g Au/t over 3.9 metres true width, respectively. A definition drill program of 16 holes totaling 2,200 metres is currently in progress to fill-in drill coverage to an approximately 50 metre by 50 metre spacing to define a mineral resource. Table 2A gives complete results.

At the Los Angeles target, which is a possible satellite target adjacent San Juan as shown on Figure 2, three (3) holes totaling 565 metres have been completed to test targets at shallow depths. Hole AN-08-02 intersected 13.04 g Au/t (12.31with highs cut to 25g) over a true width of 5.0 metres at a vertical depth of only 30 metres. Hole AN-08-01 returned 2.61 g Au/t over a true width of 4.5 metres at a vertical depth of about 20 metres. Further drilling is planned to test this structure which has excellent potential to host open pittable mineral resources.

The Cuernos de Oro structure located 2 kilometres north of the mine has been tested by 10 holes totaling 1,114 metres spaced at approximately 100 metre intervals over a strike length of one (1) kilometre. Results from the first six holes intersected a mineralized structure from 1.4 metres to 2.50 metres true width; the best result was 1.36 g Au/t over a true width of 1.4 metres in Hole CO-08-05. Results of the last four holes on this target are pending.

In the Victoria-Santa Maria area, twelve (12) holes totaling 2,618 metres have been completed at approximately 100 metre spacing to test the structure between the two mining areas that previously had very little drilling. All holes have intersected mineralized structures; results have been received for four (4) additional holes. The best result was 4.94 g Au/t over a true width of 1.0 metres at a depth of approximately 40 metres below surface in Hole VICSM-08-009. Table 2A gives complete results.

A detailed mapping program including re-interpretation of previous geological data in conjunction with new diamond drilling and petrological work has outlined a number of new targets along the Mojon-Crimea structure which hosts the majority of the mineral resources outlined to date at Orosi. A particular focus has been the potential extension of satellite structures to the southwest of the current pit design limits on Mojon. Seven (7) holes totaling 1,548 metres have completed to test potential new structures. The best result was from Hole MJ-08-003 which returned 4.49 g Au/t over a true width of 0.5 metres. Table 2A gives complete results. Results from the last four holes of this program are pending.

As previously reported, Induced Polarization/Resistivity surveys totaling 38.6 line kilometres in 21 lines were completed to explore the potential strike extension over approximately 3 kilometres of the Mojon-Crimea structures as well as satellite structures to the immediate northeast of the mine area. This survey has outlined a number of significant anomalies including two major chargeability anomalies 1.2 kilometres and 2.5 kilometres northeast of the mine area respectively, as shown below in Figure 2. Eight (8) reconnaissance diamond drill holes totaling 1,678 metres have been completed to test these anomalies. This area had never previously been drill tested and the area is covered by saprolite up to 5 metres thick so that there is essentially no outcrop.

The holes confirmed the presence of widespread disseminated pyrite within a variety of hydrothermally clay-altered breccias. In places the breccias contain silicified fragments which probably came from an original silicified cap. While no significant gold values were returned from the first six holes for which assays have been received, this type of alteration is typically above or peripheral to the core silicified and gold mineralized centre of the epithermal systems. The widespread hydrothermal alteration indicates that there is excellent potential for locating gold mineralized zones likely below or peripheral to where these holes were drilled. Based on this new geological information, the interpretation of the induced polarization survey is being refined to outline additional drill targets.

Dr. Bill Pearson, P.Geo. commented, The program at Orosi has accelerated significantly over the past two months with our improved understanding of the geology and distribution of gold mineralization. Drilling on several of the structures, particularly San Juan and Los Angeles, has returned grades significantly higher than the average Orosi open pit reserve grade indicating that there is excellent potential to outline additional resources with higher grades in these satellite structures. It is evident that the Mojon-Crimea structure extends much further to the northeast and the drilling results on the IP anomalies have confirmed widespread hydrothermal alteration, further work is required to locate the silicified core of the systems where gold mineralization is most likely to occur.

Mestiza-La India Area

At Mestiza-La India, located 70 kilometres east of Limon, as previously reported, Magnetic, Resistivity and Induced Polarization (IP) surveys have been conducted on approximately 45 line kilometres of new exploration grid oriented perpendicular to the Tatiana vein crossing the Mestiza property, along with geological mapping, sampling, prospecting and data compilation. This grid has been extended to the southwest and southeast to better cover the anomalous areas; IP surveys are currently in progress on an additional 32 line kilometers. As previously reported drilling is planned to test the IP anomalies.

Diamond drilling will commence soon to further test the Tatiana vein on the Mestiza property that contains an inferred mineral resource of 558,000 tonnes at 8.80 g Au/t containing 158,600 ounces of gold (see Technical Report dated March 31, 2008 posted on SEDAR). This vein has now been traced for a strike length of 5 kilometres. Elsewhere on the property geological mapping and sampling is continuing with a particular focus on outlining areas with potential conjugate veins sets where a greater density of veining could yield potential open pittable targets.

SAMPLING, ASSAYING AND QUALITY CONTROL

The core (NQ 47.6 mm) was logged, photographed and then sawn in half with one-half sent to the laboratory for analysis and the other half retained and stored on site. All core samples were prepared and assayed at the Company s Limon Mine laboratories. The Limon mine laboratory has a separate preparation circuit for exploration samples so that these are prepared and analyzed separately from run-of-mine samples.

The Limon Mine laboratory uses normal industry procedures. The entire half-core samples are crushed to pass 10-mesh-size sieve, a 1/4 split is then pulverized to have greater than 90% passing the 200-mesh-sized sieve to produce a 100 gram homogenized sub-sample. A one-assay ton aliquot (a 29.2 gram sub-sample) is used for fire assaying with an atomic absorption (AA) or gravimetric finish to determine gold concentration. Internal quality control includes the use of blanks, duplicates and standards in every batch of samples. The Company also conducts internal check assaying. Regular external check assays are performed at a certified Canadian commercial laboratory and certified external reference standards are inserted into each batch.

Hole(i)	From	То	Core	True	Gold		Zone
	(metres)	(metres)	Length	Width (metres)	(g/t) Uncut	Cut(ii)	
			(metres)				
LM-08-015	306.42	308.00	1.58	1.4	3.20		Santa Pancha
LM-08-016	87.25	93.40	6.15	5.8	0.27		Santa Pancha
LM-08-017	86.45	89.25	2.80	2.7	1.03		Santa Pancha
LM-08-018	358.33	363.20	4.87	4.6	1.43		Santa Pancha
LM-08-019	315.93	322.97	7.52	6.4	9.83		Santa Pancha
LM-08-020	301.18	303.76	2.58	2.4	3.14		Santa Pancha
LM-08-021	42.65	62.03	19.38	18.0	6.05		Santa Pancha
LM-08-022	259.92	265.42	5.50	5.3	198.69	7.90	Santa Pancha

Table 1A: Summary of Drilling Results, Santa Pancha, Limon Mine area

(i) All holes are NQ core size

(ii) High sample assays capped at 25 Au g/t following the practice at the Santa Pancha mine; the cut values were established geostatistically.

Table 1B: Collar Coordinates and Orientation of Drill Holes, Santa Pancha, Limón Mine

Hole	Easting	Northing	Elevation	Length	Az(i)	Dip(i)
				(metres)		
LM-08-015	19457.5	13404.1	61.00	255.05	284	-64
LM-08-016	19261.5	13527.5	63.00	117.45	290	-45
LM-08-017	19250.0	13507.0	64.50	108.15	290	-45
LM-08-018	10506.5	13405.5	60.00	376.95	291	-54
LM-08-019	19507.5	13554.0	63.50	366.40	291	-55
LM-08-020	19507.5	13554.0	63.50	354.00	291	-48
LM-08-021	19234.5	13590.0	61.00	77.30	284	-50
LM-08-022	19412.5	13423.5	64.00	301.85	291	-46

(i)

All measurements are in metres except Azimuth (Az) and Dip which are measured in degrees.

Table 2A: Summary of Drilling Results San Juan, Los Angeles, Cuernos do Oro, Victoria-Santa Maria, Mojon and Gobierno Target Areas, Orosi

Hole(i)	From	То	Core	True	Gold		Zone
	(metres)	(metres)	Length	Width (metres)	(g/t) Uncut	Cut(ii)	
			(metres)				
San Juan							
SJ-08-012	91.07	106.00	14.93	11.5	3.27		San Juan
SJ-08-013	10.30	14.79	4.49	3.9	3.60		San Juan
Los Angeles							
AN-08-001	28.99	34.12	5.13	4.5	2.61		Los Angeles
and	50.29	53.79	3.50	3.1	1.68		
AN-08-002	24.90	28.00	3.10	2.7	1.34		Los Angeles
and	57.92	63.70	5.78	5.0	13.04	12.31	C

AN-08-003	48.10	48.80	0.70	0.6	2.06	Los Angeles
Cuernos do Oro						-
CO-08-001	53.80	56.72	2.92	2.1	1.12	Cuernos Oro
CO-08-002	39.24	41.14	1.9	1.4	0.34	Cuernos Oro
CO-08-003	66.70	68.70	2.00	1.4	0.60	Cuernos Oro
CO-08-004	52.67	56.19	3.52	2.5	0.80	Cuernos Oro
CO-08-005	39.40	41.40	2.00	1.4	1.36	Cuernos Oro
CO-08-006	45.55	47.72	2.17	1.5	1.11	Cuernos Oro
CO-08-007	Assays pe	ending				Cuernos Oro

Hole(i)	From	То	Core	True	Gold		Zone
	(metres)	(metres)	Length	Width (metres)	(g/t) Uncut	Cut(ii)	
			(metres)				
CO-08-008	Assays pen	ding					Cuernos Oro
CO-08-009	Assays pen	ding					Cuernos Oro
CO-08-010	Assays pen	ding					