Lightwave Logic, Inc.
Form 10-Q
November 13, 2009

UNITED STATES

SECURITIES AND EXCHANGE COMMISSION

WASHINGTON D.C. 20549

FORM 10-Q

(Mark One)

ý Quarterly Report Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

For the quarterly period ended September 30, 2009

¨ Transition Report Under Section 13 or 15(d) of the Securities Exchange Act of 1934

For the transition period from _______________ to _______________

Commission File 0-52567

Lightwave Logic, Inc.

(Exact name of registrant as specified in its charter)

Nevada	82-049-7368
(State or Other Jurisdiction of Incorporation or Organization)	(I.R.S. Employer Identification Number)

121 Continental Drive, Suite 110, Newark, Delaware 19713

(Address of Principal Executive Offices)(Zip Code)

(302) 356-2717

(Registrant s Telephone Number, Including Area Code)

(Former Name, Former Address and Former Fiscal Year, if Changed Since Last Report)

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the past 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days. Yes ý No x

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate Web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§ 232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files). Yes ý. No ¨.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of large accelerated filer, accelerated filer and smaller reporting company in Rule 12b-2 of the Exchange Act.

Large accelerated filer	¨	Accelerated filer	¨
Non-accelerated filer	¨	Smaller reporting company	ý

Indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).
Yes ¨ No ý

APPLICABLE ONLY TO CORPORATE ISSUERS

As of November 12, 2009, there were approximately 41,266,542 shares of common stock, $0.001 par value, issued and outstanding.

LIGHTWAVE LOGIC, INC.

Form 10-Q Index

September 30, 2009

PART I - FINANCIAL INFORMATION

Item 1.

Financial Statements

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

BALANCE SHEETS

		September 30, 2009 (Unaudited)		December 31, 2008 (Audited)
ASSETS				
CURRENT ASSETS				
Cash and cash equivalents	$	451,561	$	88,225
Prepaid expenses		72,637		12,198
		524,198		100,423
PROPERTY AND EQUIPMENT - NET		104,792		61,726
OTHER ASSETS				
Intangible assets		232,391		212,416
TOTAL ASSETS	$	861,381	$	374,565
LIABILITIES AND STOCKHOLDERS' EQUITY				
CURRENT LIABILITIES				
Accounts payable	$	55,086	$	62,650
Accounts payable - related party		-		7,172
Accrued expenses		42,088		98,205
		97,174		168,027

CONTINGENCY				
TOTAL LIABILITIES		97,174		168,027
STOCKHOLDERS' EQUITY				
Preferred stock, $0.001 par value, 1,000,000 authorized				
No shares issued or outstanding		-		-
Common stock $0.001 par value, 100,000,000 authorized				
40,811,542 and 35,911,156 issued and outstanding at				
September 30, 2009 and December 31, 2008		40,812		35,911
Additional paid-in-capital		16,734,441		14,196,060
Subscription receivable		-		(12,500)
Deferred charges		-		(55,330)
Accumulated deficit		(15,827)		(15,827)
Deficit accumulated during development stage		(15,995,219)		(13,941,776)
TOTAL STOCKHOLDERS' EQUITY		764,207		206,538
TOTAL LIABILITIES AND STOCKHOLDERS' EQUITY	$	861,381	$	374,565

See accompanying notes to these financial statements.

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

STATEMENTS OF OPERATIONS FOR THE THREE AND NINE MONTHS ENDING

SEPTEMBER 30, 2009 AND 2008 AND FOR THE PERIOD

JANUARY 1, 2004 (INCEPTION OF DEVELOPMENT STAGE) TO SEPTEMBER 30, 2009

(UNAUDITED)

	Cumulative Since Inception	For the Three Months Ending September 30, 2009	For the Three Months Ending September 30, 2008	For the Nine Months Ending September 30, 2009	For the Nine Months Ending September 30, 2008
NET SALES	$ -	$	$ -	$ -	$ -
COST AND EXPENSE					
Research and development	6,266,834	258,626	525,792	981,262	1,156,563
General and administrative	9,681,826	359,136	670,182	1,071,105	2,485,654
	15,948,660	617,762	1,195,974	2,052,367	3,642,217
LOSS FROM OPERATIONS	(15,948,660)	(617,762)	(1,195,974)	(2,052,367)	(3,642,217)
OTHER INCOME (EXPENSE)					
Interest income	29,685	242	2,702	251	11,368
Dividend income	1,551	-	-	-	-
Realized gain (loss) on investment	3,911	-	-	-	(108)
Realized gain on disposal of assets	637	-	-	-	-
Litigation settlement	(47,500)				(47,500)
Interest expense	(34,843)	(323)	(829)	(1,327)	(2,356)
NET LOSS	$ (15,995,219)	$ (617,843)	$ (1,194,101)	$ (2,053,443)	$ (3,680,813)

Basic and Diluted Loss per Share	$ (0.02)	$ (0.03)	$ (0.05)	$ (0.11)
Basic and Diluted Weighted Average Number of Shares	40,811,542	35,017,902	38,872,955	34,505,623

See accompanying notes to these financial statements.

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

STATEMENTS OF COMPREHENSIVE LOSS FOR THE THREE AND NINE MONTHS ENDING

SEPTEMBER 30, 2009 AND 2008 AND FOR THE PERIOD

JANUARY 1, 2004 (INCEPTION OF DEVELOPMENT STAGE) TO SEPTEMBER 30, 2009

(UNAUDITED)

	Cumulative Since Inception	For the Three Months Ending September 30, 2009	For the Three Months Ending September 30, 2008	For the Nine Months Ending September 30, 2009	For the Nine Months Ending September 30, 2008
NET LOSS	$ (15,995,219)	$ (617,843)	$ (1,194,101)	$ (2,053,443)	$ (3,680,813)
OTHER COMPREHENSIVE INCOME (LOSS)					
Unrealized gain on Available for Sale Securities	-	-	3,641	-	11,593
COMPREHENSIVE LOSS	$ (15,995,219)	$ (617,843)	$ (1,190,460)	$ (2,053,443)	$ (3,669,220)

See accompanying notes to these financial statements.

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

STATEMENT OF STOCKHOLDERS EQUITY

FOR THE PERIOD JANUARY 1, 2004 (INCEPTION OF DEVELOPMENT STAGE) TO

SEPTEMBER 30, 2009

(UNAUDITED)

	Number of Shares	Common Stock	Paid-in Capital	Subscription Receivable	Deferred Charges	Unrealized Loss on Securities	Accumulated Deficit	Deficit Accumulated During Development Stage	To
NG ANCE AT EMBER 03	100	$ 1	$ -	$ -	$ -	$ -	$ (15,827)	$ -	$ (1
active talization everse ition	706,973	706	(706)	-	-	-	-	-	
ANCE AT ARY 1,	707,073	707	(706)	-	-	-	(15,827)	-	(1
non stock to ers	13,292,927	13,293	(13,293)	-	-	-	-	-	
non stock for services 2004 at share	1,600,000	1,600	254,400	-	-	-	-	-	25
non stock at	2,000,000	2,000	(2,000)	-	-	-	-	-	

r									
non stock for services gust 2004 12/share	637,500	638	74,362	-	-	-	-	-	7
ersion of ayable in nber 2004 16/share	187,500	187	29,813	-	-	-	-	-	3
ss for the nded nber 31,	-	-	-	-	-	-	-	(722,146)	(72
ANCE AT EMBER 04	18,425,000	18,425	342,576	-	-	-	(15,827)	(722,146)	(37
non stock in e nent in 2005 at share	4,000,000	4,000	996,000	-	-	-	-	-	1,00
ersion of payable in 005 at share	3,118,750	3,119	495,881	-	-	-	-	-	49
ription able	-	-	-	(6,500)	-	-	-	-	(
non stock for services gust 2005, l at share	210,000	210	585,290	-	-	-	-	-	58
non stock for services gust 2005, l at share	200,000	200	583,800	-	-	-	-	-	58
nts issued rvices in 005, during valued at	-	-	37,000	-	-	-	-	-	3

/share									
nts issued rvices in mber vested g 2005, d at /share	-	-	24,200	-	-	-	-	-	2
nts issued rvices in er 2005, d during valued at /share	-	-	15,900	-	-	-	-	-	1
nts issued ure es in nber vested g 2005, d at /share	-	-	435,060	-	-	-	-	-	43
red es for on stock d for services gust 2005, d at /share	-	-	-	-	(584,000)	-	-	-	(58
tization of ed es	-	-	-	-	265,455	-	-	-	26
se of nts in nber 2005 25/share	300,000	300	74,700	-	-	-	-	-	7
ss for the nded nber 31,	-	-	-	-	-	-	-	(1,721,765)	(1,72
ANCE AT EMBER 05	26,253,750	26,254	3,590,407	(6,500)	(318,545)	-	(15,827)	(2,443,911)	83
non stock d in	850,000	850	424,150	-	-	-	-	-	42

e nent ; 2006 at /share									
non stock for services ruary valued at /share	300,000	300	269,700	-	-	-	-	-	27
non stock for services y 2006, l at /share	400,000	400	619,600	-	-	-	-	-	62
non stock for services e 2006, l at /share	25,000	25	36,225	-	-	-	-	-	3
non stock for services vember valued at /share	60,000	60	29,340	-	-	-	-	-	2
nts issued rvices in mber vested ; 2006, l at /share	-	-	66,500	-	-	-	-	-	6
nts issued ure es in June vested ; 2006, l at /share	-	-	465,996	-	-	-	-	-	46
ns issued rvices in ary 2006, during valued at /share	-	-	428,888	-	-	-	-	-	42
	-	-	35,624	-	-	-	-	-	3

buted l related rued st									
ription able	-	-	-	6,500	-	-	-	-	
tization of ed es	-	-	-	-	318,545	-	-	-	31
lized gain on ties	-	-	-	-	-	(26,000)	-	-	(2
ss for the nding nber 31,	-	-	-	-	-		-	(2,933,809)	(2,93
ANCE AT EMBER 06	27,888,750	$ 27,889	$ 5,966,430	$ -	$ -	$ (26,000)	$ (15,827)	$ (5,377,720)	$ 57

See accompanying notes to these financial statements.

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LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

STATEMENT OF STOCKHOLDERS EQUITY

FOR THE PERIOD JANUARY 1, 2004 (INCEPTION OF DEVELOPMENT STAGE) TO

SEPTEMBER 30, 2009 (CONTINUED)

(UNAUDITED)

	Number of Shares	Common Stock	Paid-in Capital	Receivable for Issuance of Common Stock	Deferred Charges	Unrealized Loss on Securities	Accumulated Deficit	Deficit Accumulated During Development Stage	T
NCE AT MBER 6	27,888,750	$ 27,889	$ 5,966,430	$ -	$ -	$ (26,000)	$ (15,827)	$ (5,377,720)	$ 5
n stock n ent 2007 at hare	2,482,000	2,482	1,238,518	-	-	-	-	-	1,2
n stock n ent 2007 at hare	1,767,540	1,768	1,058,756	-	-	-	-	-	1,0
n stock otion ed 2007 at hare	(400,000)	(400)	(199,600)	-	-	-	-	-	(2

n stock or ervices uary alued at hare	151,785	152	106,098	-	-	-	-	-	1
n stock or ervices h 2007, at hare	1,000,000	1,000	579,000	-	-	-	-	-	5
n stock or and ent for s payable 2007, at hare	100,000	100	34,900	-	-	-	-	-	
n stock or in 2007, at hare	150,000	150	101,850	-	-	-	-	-	1
n stock or in 2007, at hare	150,000	150	134,850	-	-	-	-	-	1
n stock or in ber alued at hare	400,000	400	287,600	-	-	-	-	-	2
ts or in ber ested 2007, at hare	-	-	36,370	-	-	-	-	-	
ts or in	-	-	52,180	-	-	-	-	-	

2007, during alued at hare									
ts or in 07, during alued at hare	-	-	293,476	-	-	-	-	-	2
ts or in 07, during alued at hare	-	-	140,490	-	-	-	-	-	1
ts or in May ested 2007, at hare	-	-	52,946	-	-	-	-	-	
ts or in 2007, during alued at hare	-	-	61,449	-	-	-	-	-	
ts or in 2007, during alued at hare	-	-	52,292	-	-	-	-	-	
ts or in ber ested 2007, at hare	-	-	1,159	-	-	-	-	-	
issued ices in	-	-	17,589	-	-	-	-	-	

y 2006, during alued at hare									
issued ices in y 2006, during alued at hare	-	-	43,757	-	-	-	-	-	
issued ices in ber ested 2007, at hare	-	-	41,653	-	-	-	-	-	
ts or ervices 2007, during alued at hare	-	-	348,000	-	-	-	-	-	3
d for n stock or ervices h 2007, at hare	-	-	-	-	(928,000)	-	-	-	(9
zation red	-	-	-	-	773,333	-	-	-	7
ed gain n es	-	-	-	-	-	(32,610)	-	-	(
for the ding ber 31,	-	-	-	-	-	-	-	(4,223,449)	(4,2
NCE AT MBER 7	33,690,075	33,690	10,449,763	-	(154,667)	(58,610)	(15,827)	(9,601,169)	6
	690,001	690	413,310	-	-	-	-	-	4

n stock n ent 2008 at hare									
n stock or in 2008, at hare	100,000	100	74,900	-	-	-	-	-	
n stock or in 2008, at hare	200,000	200	359,800	-	-	-	-	-	3
e of s at hare	320,000	320	79,680	-	-	-	-	-	
e of s at hare, t to per justed fering	641,080	641	159,629						1
e of s at hare	270,000	270	134,730	-	-	-	-	-	1
s or in per ested 2008, at hare	-	-	27,014	-	-	-	-	-	
s or in 2007, during alued at hare	-	-	10,885	-	-	-	-	-	
s or in	-	-	121,713	-	-	-	-	-	1

007, during alued at hare									
ts or in 007, during alued at hare	-	-	48,738	-	-	-	-	-	
ts or in May ested 2008, at hare	-	-	31,444	-	-	-	-	-	
ts or in ber ested 2008, at hare	-	-	12,487	-	-	-	-	-	
issued ices in ber ested 2008, at hare	-	-	286,803	-	-	-	-	-	2
issued ices in 2008, during alued at hare	-	-	30,750	-	-	-	-	-	
issued ices in 08, during alued at hare	-	-	114,519	-	-	-	-	-	1
issued ices in 2008, during	-	-	525,263	-	-	-	-	-	5

alued at hare									
issued ices in per ested 2008, at hare	-	-	6,439	-	-	-	-	-	
ts or ervices h 2008, hrough per alued at hare	-	-	332,000	-	(332,000)	-	-	-	
ts or in May ested per alued at hare	-	-	976,193	-	-	-	-	-	9
zation red	-	-	-	-	431,337	-	-	-	4
ble for ance of n stock	-	-	-	(12,500)	-	-	-	-	(
d loss fication	-	-	-	-	-	58,610	-	-	
for the ding per 31,	-	-	-	-	-	-	-	(4,340,607)	(4,3
NCE AT MBER 8	35,911,156	$ 35,911	$ 14,196,060	$ (12,500)	$ (55,330)	$ -	$ (15,827)	$ (13,941,776)	$ 2

See accompanying notes to these financial statements.

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

STATEMENT OF STOCKHOLDERS EQUITY

FOR THE PERIOD JANUARY 1, 2004 (INCEPTION OF DEVELOPMENT STAGE) TO

SEPTEMBER 30, 2009 (CONTINUED)

(UNAUDITED)

	Number of Shares	Common Stock	Paid-in Capital	Receivable for Issuance of Common Stock	Deferred Charges	Accumulated Deficit	Deficit Accumulated During Development Stage	Total
BALANCE AT DECEMBER 31, 2008	35,911,156	$ 35,911	$ 14,196,060	$ (12,500)	$ (55,330)	$ (15,827)	$ (13,941,776)	$ 206,538
Rights to purchase shares issued in January 2009, vested during 2009, valued at $0.33/share	-	-	132,058	-	-	-	-	132,058
Common stock issued for services in January 2009, valued at $0.58/share	100,000	100	57,900	-	-	-	-	58,000
Common stock issued for services & settlement for accounts payable January 2009 valued at $0.25/share	100,000	100	24,900	-	-	-	-	25,000

Exercise of purchase right agreement in January 2009 at $0.25/share	180,550	181	44,957	-	-	-	-	45,138
Exercise of warrants at $0.25/share, pursuant to November 2008 adjusted stock offering	1,279,336	1,279	318,555					319,834
Exercise of warrants at $0.001/share	400,000	400	-	-	-	-	-	400
Options issued for services in November 2007, vested during 2009, valued at $0.60/share	-	-	149,016	-	-	-	-	149,016
Options issued for services in January 2008, vested during 2009, valued at $0.60/share	-	-	9,834	-	-	-	-	9,834
Options issued for services in July 2008, vested during 2009, valued at $1.48/share	-	-	49,171	-	-	-	-	49,171
Options issued for services in August 2008, vested during 2009, valued at $1.36/share	-	-	460,970	-	-	-	-	460,970
Options issued for services in November 2008, vested during 2009, valued at $0.50/share	-	-	53,412	-	-	-	-	53,412
Options issued for services in January 2009, vested during	-	-	13,136	-	-	-	-	13,136

2009, valued at $0.53/share								
Options issued for services in February 2009, vested during 2009, valued at $0.38/share	-	-	9,583	-	-	-	-	9,583
Options issued for services in June 2009, vested during 2009, valued at $0.85/share	-	-	21,085	-	-	-	-	21,085
Warrants issued for services in June 2009, vested during 2009, valued at $0.85/share	-	-	124,516	-	-	-	-	124,516
Contribution of accrued payroll in February 2009	-	-	52,129	-	-	-	-	52,129
Amortization of deferred charges	-	-	-	-	55,330	-	-	55,330
Payment for the issuance of common stock	-	-	-	12,500	-	-	-	12,500
Common stock issued for services in June 2009, valued at $0.34/share	116,000	116	39,884	-	-	-	-	40,000
Common stock issued for services & settlement for accounts payable June 2009 valued at $0.34/share	145,000	145	49,855					50,000
Common stock issued in private placement during June 2009 at $0.34/share	2,479,500	2,480	852,520	-	-	-	-	855,000
	100,000	100	74,900	-	-	-	-	75,000

Common stock issued for services in July 2009, valued at $0.75/share								
Net loss for the nine months ending September 30, 2009	-	-	-	-	-	-	(2,053,443)	(2,053,443)
BALANCE AT September 30, 2009 (UNAUDITED)	40,811,542	$ 40,812	$ 16,734,441	$ -	$ -	$ (15,827)	$ (15,995,219)	$ 764,207

See accompanying notes to these financial statements.

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

STATEMENTS OF CASH FLOW FOR THE NINE MONTHS ENDING

SEPTEMBER 30, 2009 AND 2008 AND

FOR THE PERIOD JANUARY 1, 2004 (INCEPTION OF DEVELOPMENT STAGE) TO

SEPTEMBER 30, 2009

(UNAUDITED)

	Cumulative Since Inception	For the Nine Months Ending September 30, 2009	For the Nine Months Ending September 30, 2008
CASH FLOWS FROM OPERATING ACTIVITIES			
Net loss	$ (15,995,219)	$ (2,053,443)	$ (3,680,813)
Adjustment to reconcile net loss to net cash used in operating activities			
Amortization of deferred charges	4,392,456	55,330	360,731
Amortization of prepaid expenses	18,750	18,750	-
Warrants issued for services	2,186,952	124,516	1,226,211
Stock options issued for services	2,595,368	766,207	694,407
Common stock issued for services	1,093,292	128,000	435,000
Purchase right agreement amortization	132,058	132,058	-
Depreciation	71,557	10,662	12,213
Realized (gain) loss on investments	(3,911)	-	108
Realized gain on disposal of assets	(637)	-	-
(Increase) decrease in assets			
Receivables	(30,461)	-	1,244
Prepaid expenses	(16,387)	(4,189)	(4,875)
Increase (decrease) in liabilities			
Accounts payable	188,001	37,436	(72,341)
Accounts payable - related party	-	(7,172)	10,531
Accrued expenses	28,702	(3,988)	(16,460)
Net cash used in operating activities	(5,339,479)	(795,833)	(1,034,044)

CASH FLOWS FROM INVESTING ACTIVITIES			
Cost of intangibles	(232,391)	(19,975)	(16,423)
Proceeds from sale of available for sale securities	203,911	-	62
Proceeds from receipt of note receivable	100,000	-	100,000
Purchase of available for sale securities	(200,000)	-	-
Purchase of equipment	(139,099)	(53,728)	(10,207)
Net cash (used in) provided by investing activities	(267,579)	(73,703)	73,432
CASH FLOWS FROM FINANCING ACTIVITIES			
Issuance of common stock, private placement	4,995,524	855,000	414,000
Common stock rescinded, private placement	(200,000)	-	-
Issuance of common stock, exercise of warrants	683,004	320,234	202,500
Issuance of common stock, exercise of purchase right agreement	45,138	45,138	-
Repayment of notes payable	(14,970)	-	-
Proceeds from subscription receivable	19,000	12,500	-
Advances to stockholders	(4,933)	-	-
Proceeds from convertible notes	529,000	-	-
Advances from officers	1,498	-	-
Net cash provided by financing activities	6,053,261	1,232,872	616,500
NET INCREASE (DECREASE) IN CASH AND CASH EQUIVALENTS	446,203	363,336	(344,112)
CASH AND CASH EQUIVALENTS - BEGINNING OF PERIOD	5,358	88,225	479,451
CASH AND CASH EQUIVALENTS - END OF PERIOD	$ 451,561	$ 451,561	$ 135,339

See accompanying notes to these financial statements.

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

STATEMENTS OF CASH FLOW FOR THE NINE MONTHS ENDING

SEPTEMBER 30, 2009 AND 2008 AND

FOR THE PERIOD JANUARY 1, 2004 (INCEPTION OF DEVELOPMENT STAGE) TO

SEPTEMBER 30, 2009

(UNAUDITED)

	Cumulative Since Inception	For the Nine Months Ending September 30, 2009	For the Nine Months Ending September 30, 2008
SUPPLEMENTAL DISCLOSURES OF CASH FLOW INFORMATION			
CASH PAID DURING THE PERIOD FOR:			
Interest	$ 21,736	$ 829	$ 2,356
SUPPLEMENTAL DISCLOSURE OF NON-CASH INVESTING AND FINANCING ACTIVITIES			
Common stock issued in exchange for deferred charges	$ 3,142,400	$ -	$ -
Warrants issued in exchange for deferred charges	$ 1,581,056	$ -	$ 332,000
Common stock issued as settlement for accounts payable	$ 74,708	$ 45,000	$ -
Increase/(Decrease) in fair value of investment securities	$ -	$ -	$ 11,593
Accrued interest contributed as capital	$ 35,624	$ -	$ -
Common stock issued in the conversion of notes payable	$ 529,000	$ -	$ -

Acquisition of automobile through loan payable	$	24,643	$	-	$	-
Common stock issued upon exercise of a warrant in exchange for receivable	$	75,000	$	-	$	-
Insurance company pay off of note payable	$	9,673	$	-	$	-
Receivable for issuance of common stock	$	10,000	$	10,000	$	12,500
Contribution of officer accrued payroll	$	52,129	$	52,129	$	-
Common stock issued for prepaid expense	$	75,000	$	75,000	$	-

See accompanying notes to these financial statements.

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS

SEPTEMBER 30, 2009 AND 2008

NOTE 1- FINANCIAL STATEMENTS

The accompanying unaudited financials statements have been prepared by Lightwave Logic, Inc. (the Company). These statements include all adjustments (consisting only of its normal recurring adjustments) which management believes necessary for a fair presentation of the statements and have been prepared on a consistent basis using the accounting polices described in the Summary of Accounting Policies included in the 2008 Annual Report. Certain financial information and footnote disclosures normally indicated in financial statements prepared in accordance with accounting principals generally accepted in the United States have been condensed or omitted pursuant to those rules and regulations, although the Company firmly believes that the accompanying disclosures are adequate to make the information presented not misleading. The financial statements should be read in conjunction with the financial statements and notes thereto included in the Company s Annual Report on Form 10-K for the year ended December 31, 2008, as filed with the Securities and Exchange Commission. The interim operating results for the three and nine months ending September 30, 2009 may not be indicative of operating results expected for the full year.

Loss per Share

The Company follows Financial Accounting Standards Board Accounting Standards Codification (FASB ASC) 260, Earnings per Share , resulting in the presentation of basic and diluted loss per share. Because the Company reported a net loss for each of the three and nine months ending September 30, 2009 and 2008, common stock equivalents consisting of options and warrants were anti-dilutive; therefore, the basic and diluted net loss per share for each of these periods was the same.

Reclassifications

Certain reclassifications have been made to the September 30, 2008 financial statements to conform to the September 30, 2009 presentation. The most significant is the non-cash cost of a consulting agreement in conjunction with the warrants purchase agreement valued at $976,193 issued during the second quarter of 2008. The expense was reclassified from research and development to general and administrative expense due to a change in allocation methodology.

Recently Adopted Accounting Pronouncements

FASB ASC 820-10 establishes a framework for measuring fair value and expands disclosures about fair value measurements. The changes to current practice resulting from the application of this standard relate to the definition of fair value, the methods used to measure fair value, and the expanded disclosures about fair value measurements. This standard is effective for fiscal years beginning after November 15, 2007; however, it provides a one-year deferral of the effective date for non-financial assets and non-financial liabilities, except those that are recognized or disclosed in the financial statements at fair value at least annually. The Company adopted this standard for financial assets and financial liabilities and nonfinancial assets and nonfinancial liabilities disclosed or recognized at fair value on a recurring basis (at least annually) as of January 1, 2008. The Company adopted the standard for nonfinancial assets and nonfinancial liabilities on January 1, 2009. The adoption of this standard in each period did not have a material impact on its financial statements.

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS

SEPTEMBER 30, 2009 AND 2008

NOTE 1- FINANCIAL STATEMENTS (CONTINUED)

Recently Adopted Accounting Pronouncements (Continued)

FASB ASC 805 establishes principles and requirements for how an acquirer recognizes and measures in its financial statements the identifiable assets acquired, the liabilities assumed, any noncontrolling interest in the acquiree and the goodwill acquired. This standard also establishes disclosure requirements to enable the evaluation of the nature and financial effects of the business combination. This standard is not currently applicable to the Company.

FASB ASC 810-10 requires all entities to report noncontrolling (minority) interests in subsidiaries as equity in the consolidated financial statements. The standard establishes a single method of accounting for changes in a parent s ownership interest in a subsidiary that does not result in deconsolidation and expands disclosures in the consolidated financial statements. This standard is effective for fiscal years beginning after December 15, 2008 and interim periods within those fiscal years. This standard is not currently applicable to the Company.

FASB ASC 815-10 is effective January 1, 2009. This standard requires enhanced disclosures about derivative instruments and hedging activities to allow for a better understanding of their effects on an entity s financial position, financial performance, and cash flows. Among other things, this standard requires disclosures of the fair values of derivative instruments and associated gains and losses in a tabular formant. This standard is not currently applicable to the Company since the Company does not have derivative instruments or hedging activity.

In April 2008, FASB ASC 350-30 and 275-10 amend the factors that should be considered in developing renewal or extension assumptions used to determine the useful life of a recognized intangible asset. This standard is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. Early adoption is prohibited. The adoption of this standard did not have any impact on the Company s financial statements.

FASB ASC 260-10 provides that unvested share-based payment awards that contain nonforfeitable rights to dividends or dividend equivalents (whether paid or unpaid) are participating securities and shall be included in the computation of earnings per share pursuant to the two-class method. This standard is effective for financial statements issued for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. The Company does not currently have any share-based awards that would qualify as participating securities. Therefore, application of this standard is not expected to have an effect on the Company's financial reporting.

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS

SEPTEMBER 30, 2009 AND 2008

NOTE 1- FINANCIAL STATEMENTS (CONTINUED)

Recently Adopted Accounting Pronouncements (Continued)

In May 2008, the FASB issued FASB ASC 470-20 which is effective for financial statements issued for fiscal years beginning after December 15, 2008. The standard includes guidance that convertible debt instruments that may be settled in cash upon conversion should be separated between the liability and equity components, with each component being accounted for in a manner that will reflect the entity's nonconvertible debt borrowing rate when interest costs are recognized in subsequent periods. This standard is currently not applicable to the Company since the Company does not have any convertible debt.

FASB ASC 815-10 and 815-40 are effective for financial statements for fiscal years beginning after December 15, 2008, and interim periods within those fiscal years. The standard addresses the determination of whether an instrument (or an embedded feature) is indexed to an entity s own stock, which is the first part of the scope exception for the purpose of determining whether the instrument is classified as an equity instrument or accounted for as a derivative instrument which would be recognized either as an asset or liability and measured at fair value. The standard shall be applied to outstanding instruments as of the beginning of the fiscal year in which this standard is initially applied. Any debt discount that was recognized when the conversion option was initially bifurcated from the convertible debt instrument shall continue to be amortized. The cumulative effect of the change in accounting principles shall be recognized as an adjustment to the opening balance of retained earnings. The Company adopted this standard as of January 1, 2009, and was not required to reclassify any of its warrants as liabilities.

In April 2009, the FASB issued FASB ASC 825-10 which requires disclosures about the fair value of financial instruments for interim reporting periods. This standard is effective for interim reporting periods ending after June 15, 2009. The adoption of this standard did not have a material impact on the Company s financial statements.

In April 2009, the FASB issued FASB ASC 320-10 which amends the other-than-temporary impairment guidance for debt and equity securities. This standard is effective for interim and annual reporting periods ending after June 15, 2009. This standard is currently not applicable to the Company since the Company does not have any investments in debt and equity securities.

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS

SEPTEMBER 30, 2009 AND 2008

NOTE 1- FINANCIAL STATEMENTS (CONTINUED)

Recently Adopted Accounting Pronouncements (Continued)

In May 2009, the FASB issued FASB ASC 855-10 which is effective for interim or annual financial periods ending after June 15, 2009 and establishes general standards of accounting and disclosure of events that occur after the balance sheet but before financial statements are issued or are available to be issued. However, since the Company is a public entity, management is required to evaluate subsequent events through the date that financial statements are issued and disclose the date through which subsequent events have been evaluated, as well as the date the financial statements were issued. This standard was adopted for its interim period ending June 30, 2009. Subsequent events have been evaluated through November 13, 2009, the date the financial statements were issued.

In June 2009, the FASB issued Accounting Standards Update No. 2009-01, The FASB Accounting Standards Codification, which establishes the Codification as the source of authoritative GAAP recognized by the FASB to be applied by nongovernmental entities. This standard is effective for financial statements issued for interim and annual periods ending after September 15, 2009. The adoption of this standard did not have a material effect on the Company s financial reporting.

As of September 30, 2009, the FASB has issued Accounting Standards Updates (ASU) through No. 2009-12. None of the ASU s have had an impact on the Company s financial statements.

Recently Issued Accounting Pronouncements Not Yet Adopted

As of September 30, 2009, there are no recently issued accounting standards not yet adopted which would have a material effect on the Company s financial statements.

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS

SEPTEMBER 30, 2009 AND 2008

NOTE 2 GOING CONCERN

The accompanying financial statements have been prepared assuming the Company will continue as a going concern. The Company has incurred significant losses and experienced negative cash flow during the development stage. These conditions raise substantial doubt about the Company s ability to continue as a going concern. The financial statements do not include any adjustments that might result from the outcome of this uncertainty.

The Company is in the development stage at September 30, 2009. With the $455,000 of proceeds from exercise of warrants that were exercised in October, 2009, the Company should have funds to maintain its operations through May 2010. Currently, the remaining outstanding warrants if exercised before their expiration should supply the necessary funds to maintain its operations through September 2010. The Company has developed and completed one of its two prototype modulator concepts in October 2009 and is in evaluation and testing. The Company continues to develop and test its next generation Electro-Optic material platform. Management is in the process of finalizing a business plan that it believes will be attractive enough to investors to raise the necessary capital. The successful completion of the Company s prototypes could lead to adequate financing to fulfill its development activities and achieve a level of revenue adequate to support the Company s business plan for the foreseeable future. However, there can be no assurances that the Company will be able to secure the necessary financing and/or equity investment or achieve an adequate sales level.

NOTE 3 DEFERRED CHARGES

Deferred charges represent the unamortized fair value of the issuance of common stock and warrants for future services to non-employees which was accounted for in accordance with FASB ASC 505.50, as follows with the deferred charge fully amortized at September 30, 2009:

	September 30, 2009	December 31, 2008
Common stock	$ 2,811,400	$ 2,811,400
Warrants	1,581,056	1,581,056
	4,392,456	4,392,456
Less: Accumulated Amortization	4,392,456	4,337,126
	-	55,330
Less: Amount reflected as a contra-equity account for management consulting services provided by related party	-	55,330
	$ -	$ -

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS

SEPTEMBER 30, 2009 AND 2008

NOTE 4 EQUIPMENT

Equipment consists of the following:

		September 30, 2009		December 31, 2008
Office equipment	$	8,702	$	7,727
Lab equipment		134,858		82,105
		143,560		89,832
Less: Accumulated depreciation		38,768		28,106
	$	104,792	$	61,726

Depreciation expense for the nine months ending September 30, 2009 and 2008 was $10,662 and $12,213.

NOTE 5 INTANGIBLE ASSETS

This represents legal fees and patent fees associated with the registration of patents. The Company has not recorded any amortization expenses since the patents have yet to be declared effective. Once issued, the cost of the patents will be amortized over their legal lives, which is generally 20 years.

NOTE 6 INCOME TAXES

There is no income tax benefit for the losses for the three and nine months ended September 30, 2009 and 2008 since management has determined that the realization of the net deferred tax asset is not assured and has created a valuation allowance for the entire amount of such benefits.

The Company s policy is to record interest and penalties associated with unrecognized tax benefits as additional income taxes in the statement of operations. As of January 1, 2009, the Company had no unrecognized tax benefits, or any tax related interest of penalties. There were no changes in the Company s unrecognized tax benefits during the period ended September 30, 2009. The Company did not recognize any interest or penalties during 2009 related to unrecognized tax benefits. Tax years from 2005 through 2008 remain subject to examination by major tax jurisdictions.

NOTE 7 STOCKHOLDERS EQUITY

Preferred Stock

Pursuant to our Company s Articles of Incorporation, our board of directors is empowered, without stockholder approval, to issue series of preferred stock with any designations, rights and preferences as they may from time to time determine. The rights and preferences of this preferred stock may be superior to the rights and preferences of our common stock; consequently, preferred stock, if issued could have dividend, liquidation, conversion, voting or other rights that could adversely affect the voting power or other rights of the common stock. Additionally, preferred stock, if issued, could be utilized, under special circumstances, as a method of discouraging, delaying or preventing a change in control of our business or a takeover from a third party.

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS

SEPTEMBER 30, 2009 AND 2008

NOTE 7 STOCKHOLDERS EQUITY (CONTINUED)

Common Stock and Warrants

The stockholders deficit at January 1, 2004 has been retroactively restated for the equivalent number of shares received in the reverse acquisition at July 14, 2004 after giving effect to the difference in par value with the offset to additional paid-in-capital.

In July 2004, the Company issued to related parties 1,600,000 shares of its common stock for professional services valued at $256,000, fair value.

In August 2004, the Company issued 637,500 shares of its common stock for professional services to related parties valued at $75,000, fair value.

In December 2004, the Company converted a note payable of $30,000 into 187,500 shares of common stock at a conversion price of $0.16 per share.

In April 2005, the Company issued 4,000,000 shares of its common stock in a private placement for proceeds of $1,000,000.

On May 4, 2005, the Company converted the notes payable of $499,000 into 3,118,750 shares of common stock at a conversion price of $0.16 per share. An unpaid note payable in the amount of $6,500 has been reflected as a subscription receivable. During 2006, the Company deemed this $6,500 outstanding subscription receivable to be uncollectible.

During August 2005, the Company issued 210,000 shares of common stock for professional services rendered valued at $585,500, fair value. Consulting expense of $375,500 was recognized during 2005, and at December 31, 2005, the remaining balance of $210,000 is reflected as a deferred charge on the balance sheet. During 2006, consulting expense of $210,000 was recognized. This agreement ended in May 2006.

In August 2005, in conjunction with a management services contract with a related party, the Company issued 200,000 shares of common stock valued at $584,000. Management expense of $265,455 was recognized during 2005, and at December 31, 2005, the remaining balance of $318,545 is reflected as a deferred charge in a contra-equity account. During 2006, management expense of $318,545 was recognized. This agreement ended in June 2006.

During May 2005, the Company issued Stock Purchase Warrants to purchase 100,000 shares of common stock at an exercise price of $2.10 in exchange for consulting services. The warrants are exercisable until May 2008 and vest as follows: 50,000 shares during the first year of the agreement, 25,000 shares during the second year of the agreement, and 25,000 shares during the third year. In accordance with the fair value method, the Company used the Black-Scholes model to calculate the grant-date fair value, with the following assumptions: no dividend yield, expected volatility of 60%, risk-free interest rate of 3.8% and expected life of option of three years. The fair market value of the warrants was $113,250. In accordance with the fair value method as described in accounting requirements of FASB ASC 718 Stock Compensation, the Company recognized consulting expense of $37,000 in 2005. This warrant was cancelled during 2006.

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS

SEPTEMBER 30, 2009 AND 2008

NOTE 7 STOCKHOLDERS EQUITY (CONTINUED)

Common Stock and Warrants (Continued)

During September 2005, the Company issued Stock Purchase Warrants to purchase 100,000 shares of common stock at an exercise price of $2.00 in exchange for consulting services. The warrants expire in September 2008 and vest as follows: 50,000 shares during the first year of the agreement, 25,000 shares during the second year of the agreement, and 25,000 shares during the third year of the agreement. In accordance with the fair value method, the Company used the Black-Scholes model to calculate the grant-date fair value, with the following assumptions: no dividend yield, expected volatility of 60%, risk-free interest rate of 3.8% and expected life of option of three years. The fair market value of the warrants was $145,100. The Company recognized consulting expense of $27,014, $36,370, $66,500 and $24,200 for the years ended December 31, 2008, 2007, 2006 and 2005 in conjunction with this agreement. These warrants expired in September 2008.

On October 15, 2005, the Company issued Stock Purchase Warrants to purchase 30,000 shares of common stock at an exercise price of $1.40 in exchange for consulting services. The warrants expire in October 2006 and are exercisable immediately. In accordance with the fair value method, the Company used the Black-Scholes model to calculate the grant-date fair value, with the following assumptions: no dividend yield, expected volatility of 60%, risk-free interest rate of 4.15% and expected life of option of one year. The fair market value of the warrants was $15,900. In accordance with the fair value method as described in accounting requirements of FASB ASC 718 Stock Compensation, the Company recognized consulting expense of $15,900 during 2005. These warrants expired in October 2006.

In December 2005, in conjunction with a consulting contract, the Company issued Stock Purchase Warrants to purchase 300,000 shares of common stock at an exercise price of $0.25 per share valued at $435,060, fair value. The warrants expire in December 2007 and were exercisable immediately. In accordance with the fair value method, the Company used the Black-Scholes model to calculate the grant-date fair value, with the following assumptions: no dividend yield, expected volatility of 60%, risk-free interest rate of 4.41% and expected life of option of two years. In accordance with the fair value method as described in accounting requirements of FASB ASC 718 Stock Compensation, the Company recognized consulting expense of $199,435, and at December 31, 2005, the remaining balance in deferred charges amounted to $235,625. The 300,000 warrants were fully exercised on December 31, 2005 for $75,000. The Company recognized $18,128 and $217,497 in consulting expense in conjunction with this agreement for the years ended December 31, 2007 and 2006, which was cancelled during 2007.

During 2006, the Company issued 850,000 shares of common stock and warrants to purchase 425,000 shares of common stock for proceeds of $425,000 in accordance to a private placement memorandum amended December 18, 2006. Pursuant to the terms of the amended offering, up to 20 units were offered at the offering price of $50,000 per unit, with each unit comprise of 100,000 shares and a warrant to purchase 50,000 shares of common stock at $0.50 per share. In November 2007, 400,000 shares of common stock and warrants to purchase 200,000 shares of common stock were rescinded. As of December 31, 2008, warrants to purchase 210,000 shares of common stock were fully exercised for proceeds of $105,000, and warrants to purchase 15,000 shares expired.

During February 2006, the Company issued 300,000 shares of common stock for professional services rendered valued at $270,000, fair value. The Company recognized consulting expense of $16,875 and $118,125 and legal expense of $16,875 and $118,125 during 2007 and 2006. The contracts expired during 2007. The legal services were provided by a related party.

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS

SEPTEMBER 30, 2009 AND 2008

NOTE 7 STOCKHOLDERS EQUITY (CONTINUED)

Common Stock and Warrants (Continued)

During May 2006, the Company issued 400,000 shares of common stock for professional services rendered valued at $620,000, fair value. The Company recognized consulting expense of $258,333 and $361,667 during 2007 and 2006, and at December 31, 2006. The contracts expired during 2007.

During June 2006, the Company issued 25,000 shares of common stock to a related party for professional services rendered valued at $36,250, fair value. The Company recognized legal expense of $16,615 and $19,635 during 2007 and 2006, and at December 31, 2006. The contracts expired during 2007.

During November 2006, the Company issued 60,000 shares of common stock for professional services valued at $29,400, fair value. The Company recognized investor relations expense of $25,480 and $3,920 during 2007 and 2006. The contract expired during 2007.

In June 2006, in conjunction with an addendum to an existing consulting contract effective December 2005, the Company issued Stock Purchase Warrants to purchase 300,000 shares of common stock at an exercise price of $0.25 per share. The warrants expire in June 2008 and were exercisable immediately. In accordance with the fair value method, the Company used the Black-Scholes model to calculate the grant-date fair value, with the following assumptions: no dividend yield, expected volatility of 186%, risk-free interest rate of 4.41% and expected life of option of two years. The fair market value of the warrants was $465,996. During 2007 and 2006, the Company recognized consulting expense of $330,948 and $135,048 in conjunction with this agreement. The contract was cancelled during 2007. The 300,000 warrants were fully exercised on March 12, 2008 for proceeds of $75,000.

During 2006, the Company cancelled a warrant issued during May 2005 to purchase 100,000 shares of the Company s common stock at an exercise price of $2.10, and issued an option to purchase 500,000 shares of the Company s common stock at an exercise price of $1 per share and the same option s expiration and vesting terms were modified during November 2006. This option expired in June 2007. The incremental cost of the modified option was $394,030 and will be expensed over the vesting terms. The Company recognized $17,589 and $406,215 as a consulting expense in 2007 and 2006, which includes $337,290 of the incremental cost of the modified option.

During February 2006, the Company awarded an employee with an option to purchase 200,000 shares of common stock at an exercise price of $1.00 per share under the 2005 Employee Stock Option Plan. These options were valued at $217,628 using the Black-Scholes Option Pricing Formula. The employee compensation expense recognized during 2007 and 2006 is $43,757 and $22,673. In June 2007, the employee was terminated and the vesting ceased. After September 2007, the vested options expired.

During 2006, the Company recognized contributed capital of $35,624 related to the conversion of accrued interest payable.

During 2006, the Company deemed a May 2005 outstanding subscription receivable of $6,500 to be uncollectible.

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS

SEPTEMBER 30, 2009 AND 2008

NOTE 7 STOCKHOLDERS EQUITY (CONTINUED)

Common Stock and Warrants (Continued)

During 2007, the Company issued 2,482,000 shares of common stock and warrants to purchase 1,241,000 shares of common stock for proceeds of $1,241,000 in accordance to a private placement memorandum amended December 18, 2006. Pursuant to the terms of the amended offering, up to 20 units were offered at the offering price of $50,000 per unit, with each unit comprised of 100,000 shares and a warrant to purchase 50,000 shares of common stock at $0.50 per share. For the six month ending June 30, 2009, the remaining 600,000 outstanding warrants expired.

During 2007, the Company issued 1,767,540 shares of common stock and warrants to purchase 883,770 shares of common stock for proceeds of $1,060,524 in accordance to a private placement memorandum issued on October 3, 2007. Pursuant to the terms of the offering, up to 20 units were offered at the purchase price of $60,000 per unit, with each unit comprised of 100,000 shares and a warrant to purchase 50,000 shares of common stock at $1.00 per share. As of September 30, 2009, warrants to purchase 740,001 shares of common stock are still outstanding.

During 2007, as previously described, a shareholder that was issued 400,000 shares of the Company s common stock and a warrant to purchase 200,000 shares of common stock at $0.50 per share rescinded his shares and warrant.

During February 2007, the Company issued 151,785 shares of common stock for investor relations services valued at $106,250, fair value, which was recorded as a deferred charge and amortized over one year, the term of the services contract. During 2007, the Company recognized $97,396 in investor relations expense. During 2008, the Company recognized $8,854 in investor relations expense. This contract expired in February 2008.

During February 2007, the Company terminated its then CEO. The option to purchase 56,000 shares of common stock that was recorded as deferred charges of $42,730 were not vested and were forfeited. The option to purchase 444,000 shares of common stock that were vested expired during 2007.

During March 2007, the Company issued 1,000,000 shares of common stock to a related party for management consulting services valued at $580,000, fair value. During April 2007, the Company issued 500,000 warrants as an addendum to the original contract for management consulting services valued at $348,000, fair value. This contract was recorded as a contra-equity deferred charges account and is amortized over one year, the term of the contract. Management consulting expense recognized during 2008 and 2007 is and $154,667 and $773,333. This contract was renewed in March, 2008. The warrant is still outstanding as of September 30, 2009.

During April 2007, the Company issued 100,000 shares of common stock for legal services to a related party valued at $35,000, fair value, to settle $29,708 of accounts payable and as payment for $5,292 of legal services incurred in April 2007.

During October 2007, the Company issued 150,000 shares of common stock for investor relations services valued at $102,000, fair value to a related party. During 2007 the Company recognized $102,000 in investor relation expense.

During October 2007, the Company issued 150,000 shares of common stock for investor relations services valued at $135,000, fair value. During 2007, the Company recognized $135,000 in investor relations expense.

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS

SEPTEMBER 30, 2009 AND 2008

NOTE 7 STOCKHOLDERS EQUITY (CONTINUED)

Common Stock and Warrants (Continued)

During November 2007, the Company issued 400,000 shares of common stock under the 2007 Stock Option Plan to the acting Chief Executive Officer for services rendered valued at $288,000, fair value. The Company recognized $288,000 in consulting expense during 2007.

During March 2007, the Company issued a warrant to purchase 100,000 shares of common stock for consulting services at an exercise price of $0.25 per share. The warrant was valued at $63,065 using the Black-Scholes Option Pricing Formula and expensed over the life of the contract associated with the consulting services, which is one year. The consulting expense recognized during 2008 and 2007 is $10,885 and $52,180. The warrant is still outstanding as of September 30, 2009.

During April 2007, the Company issued warrants to purchase 900,000 shares of common stock for consulting services at an exercise price of $0.25 per share. The warrants were valued at $604,416 using the Black-Scholes Option Pricing Formula and expensed over the life of the contracts associated with the consulting services, which is one year. The consulting expense recognized during 2008 and 2007 is $170,451 and $433,966. The warrant is still outstanding as of September 30, 2009.

During May 2007, the Company issued a warrant to purchase 150,000 shares of common stock for consulting services at an exercise price of $0.25 per share. The warrant was valued at $84,390 using the Black-Scholes Option Pricing Formula and expensed over the life of the contract associated with the consulting services, which is one year. The consulting expense recognized during 2008 and 2007 is $31,444 and $52,946. The warrant is still outstanding as of September 30, 2009.

During October 2007, the Company issued a warrant to purchase 100,000 shares of common stock at a purchase price of $0.25 per share for accounting services rendered. The warrant was valued at $61,449 using the Black-Scholes

Option Pricing Formula. The Company recognized $61,449 in accounting expense during 2007. The warrant is still outstanding as of September 30, 2009.

During October 2007, the Company issued a warrant to purchase 67,200 shares of common stock at a purchase price of $0.25 per share for consulting services rendered. The warrant was valued at $52,292 using the Black-Scholes Option Pricing Formula. During 2007, the Company recognized $52,292 in consulting expense. In July 2008, the warrant was partially exercised to purchase 20,000 shares of common stock for proceeds of $5,000. As of September 30, 2009, warrants to purchase 47,200 shares of common stock are still outstanding.

During December 2007, the Company issued a warrant to purchase 25,000 shares of common stock at a purchase price of $0.50 per share for accounting services rendered. The warrant was valued at $13,646 using the Black-Scholes Option Pricing Formula and expensed over the life of the contract, which is one year. The Company recognized $12,487 and $1,159 in consulting expense during 2008 and 2007. The warrant is still outstanding as of September 30, 2009.

LIGHTWAVE LOGIC, INC.

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NOTES TO FINANCIAL STATEMENTS

SEPTEMBER 30, 2009 AND 2008

NOTE 7 STOCKHOLDERS EQUITY (CONTINUED)

Common Stock and Warrants (Continued)

During November 2007, under the 2007 Employee Stock Option Plan, the Company issued options to purchase 1,752,000 shares of common stock at a purchase price of $0.72 per share. The options were valued at $1,045,077 using the Black-Scholes Option Pricing Formula. During 2008, an option to purchase 750,000 shares of common stock, of which 125,000 shares were vested, forfeited. The consulting expense recognized during 2008 and 2007 is $286,803 and $41,653. For the three month ending September 30, 2009 and 2008 the Company recognized $50,218 and $62,883 of expense. For the nine month ending September 30, 2009 and 2008 the Company recognized $149,015 and $236,585 of expense. The options are still outstanding as of September 30, 2009.

In January 2008, under the 2007 Employee Stock Option Plan, the Company issued an option to purchase 100,000 shares of common stock at a purchase price of $0.72 per share. The option was valued at $59,490, fair value, using the Black-Scholes Option Pricing Formula and is being recognized based on vesting terms over a three year period. The expense recognized during 2008 is $30,750. For the three month ending September 30, 2009 and 2008, the Company recognized $3,749 and $7,498 of expense. For the nine month ending September 30, 2009 and 2008, the Company recognized $9,833 and $25,752 of expense. The options are still outstanding as of September 30, 2009.

During 2008, the Company issued 690,001 shares of common stock and warrants to purchase 345,001 shares of common stock for proceeds of $414,000 in accordance to a private placement memorandum issued on October 3, 2007. Pursuant to the terms of the offerings, up to 25 units were offered at the purchase price of $60,000 per unit, with each unit comprised of 100,000 shares and a warrant to purchase 50,000 shares of common stock at $1.00 per share. As of September 30, 2009, warrants to purchase 299,167 shares of common stock are still outstanding.

During March 2008, the Company issued a warrant to purchase 400,000 shares of common stock as an addendum to the original contract for management consulting services provided by a related party, valued at $332,000, fair value using Black-Scholes Option Pricing Formula, vesting immediately. This contract was recorded as a contra-equity deferred charges account and is amortized over one year beginning February 28, 2008, the term of the contract. Management consulting expense recognized during 2008 is $276,670. For the three month ending September 30, 2009 and 2008, the Company recognized $0 and $83,001 of management consulting expense. For the nine month ending

September 30, 2009 and 2008, the Company recognized $55,330 and 193,669 of management consulting expense. In January 2009, the warrant was fully exercised to purchase 400,000 shares of common stock for proceeds of $400.

During March 2008, the company issued 100,000 shares of common stock for legal services to a related party valued at $75,000, fair value. The Company recognized $75,000 of legal expense for the year ending December 31, 2008.

During April 2008, the Company issued a warrant to purchase 600,000 shares of common stock at a purchase price of $0.73 per share for consulting services rendered. The warrant was valued at $976,193, fair value, using the Black-Scholes Option Pricing Formula, vesting immediately. For the year ended December 31, 2008, the Company recognized $976,193 in consulting expense. The warrant is still outstanding as of September 30, 2009.

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS

SEPTEMBER 30, 2009 AND 2008

NOTE 7 STOCKHOLDERS EQUITY (CONTINUED)

Common Stock and Warrants (Continued)

In July 2008, the Company issued options to purchase 200,000 shares of common stock at a purchase price of $1.75 per share to members of the board of directors, under the 2007 Employee Stock Option Plan. Using the Black-Scholes Option Pricing Formula, the options were valued at $296,247, fair value, vesting 50,000 immediately and the remaining in annual equal installments of 50,000 over the next three years. The expense is being recognized based on vesting terms over a three year period. The expense recognized during 2008 is $114,519. For the three month ending September 30, 2009 and 2008, the Company recognized $18,667 and $89,628 of expense. For the nine month ending September 30, 2009 and 2008, the Company recognized $49,172 and $89,628 of expense. The options are still outstanding as of September 30, 2009.

In August 2008, under the 2007 Employee Stock Option Plan, the Company issued options to purchase 550,000 and 1,050,000 shares of common stock at a purchase price of $1.42 and $1.75 per share to members of the board of directors and the Chief Executive Officer, vesting 212,500 immediately and the remaining in annual equal installments of 112,500 over the next three years and vesting in quarterly equal installments of 87,500 commencing November 1, 2008, respectively. The options were valued at $2,176,201, fair value, using the Black-Scholes Option Pricing Formula and are being recognized based on vesting terms over a three year period. The expense recognized during 2008 is $525,263. For the three month ending September 30, 2009 and 2008, the Company recognized $162,276 and $342,420 of expense. For the nine month ending September 30, 2009 and 2008, the Company recognized $460,969 and $342,420 of expense. The options are still outstanding as of September 30, 2009.

In August 2008, the Company issued 200,000 shares of common stock under the 2007 Stock Option Plan to its new Chief Executive Officer as part of the employment agreement valued at $360,000, fair value. The Company recognized $360,000 in consulting expense for the year ending December 31, 2008.

In 2008, January through August warrant holders exercised warrants to purchase 270,000 shares at $0.50 per share for proceeds of $135,000.

On October 28, 2008, the Company s board of directors authorized the Company to raise up to $600,000 of capital through an Adjusted Common Stock Offering to certain warrant holders. This offering provided eligible warrant holders with the opportunity to purchase four (4) shares of common stock for each dollar invested pursuant to their existing warrant agreement. As of December 31, 2008, warrants to purchase 641,080 shares of common stock were exercised with proceeds of $160,270. For the three month period ending March 31, 2009, warrants to purchase 1,279,336 shares of common stock were exercised with proceeds of $319,834. In January 2009, the term of the 2008 Adjusted Common Stock offering was extended until January 31, 2009.

In November 2008, the Company issued an option to purchase 250,000 shares of common stock under the 2007 Stock Option Plan at a purchase price of $.65 per share to a new member of its board of directors. Using the Black-Scholes Option Pricing Formula, the options were valued at $125,911, fair value, vesting 62,500 immediately and the remaining in annual equal installments of 62,500 over the next three years. The expense is being recognized based on vesting terms over a three year period. The expense recognized during 2008 is $6,439. For the three month ending September 30, 2009, the Company recognized $7,934 of expense. For the nine month ending September 30, 2009, the Company recognized $53,412 of expense. The options are still outstanding as of September 30, 2009.

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS

SEPTEMBER 30, 2009 AND 2008

NOTE 7 STOCKHOLDERS EQUITY (CONTINUED)

Common Stock and Warrants (Continued)

In January 2009, an employee was granted with an option to purchase up to 25,000 shares of common stock. Using the Black-Scholes Option Pricing Formula, the options were valued at valued at $13,136, fair value. These options expire in 5 years and vest immediately. For the three month ending September 30, 2009, the Company recognized $0 of expense. The Company recognized expense of $13,136 for the nine month ending September 30, 2009. The options are still outstanding as of September 30, 2009.

During January 2009, the Company issued 100,000 shares of common stock to an officer, under the 2007 Stock Option Plan, for services rendered valued at $58,000, fair value.

During January 2009, the Company issued 100,000 shares of common stock for legal services to a related party valued at $25,000, to settle accounts payable for $10,000 and $15,000 for legal services.

During January 2009, the officers, directors, and employees of the Company were each given the right to purchase from the Company s 2007 Employee Stock Plan up to 40,000 shares of common stock at a purchase price of $.25 per share, 400,000 shares in the aggregate, all of which were valued at $132,058, fair value using the Black-Scholes Option Pricing Formula. The rights to purchase vested immediately. A total of 180,550 shares were purchased pursuant to the rights to purchase with total proceeds of $35,138 and a common stock receivable of $10,000 which was paid in May, 2009. The rights to purchase the remaining 219,450 shares expired on January 31, 2009.

At December 31, 2008 the Company had accrued officer salaries and payroll taxes of $98,205. On February 19, 2009, two officers, who are also shareholders, agreed to waive their rights to unpaid wages and salary amounting to $52,129. Accordingly in the first quarter 2009, the accrued expense was adjusted from $98,205 to $42,088 with the $52,129 treated as contributed capital and $3,988 reversed from payroll taxes.

In February 2009, an employee was granted with an option to purchase up to 25,000 shares of common stock. Using the Black-Scholes Option Pricing Formula, the options were valued at valued at $9,583, fair value. These options expire in 5 years and vest immediately. For the three month ending September 30, 2009, the Company recognized $0 of expense. The Company recognized expense of $9,583 for the nine month ending September 30, 2009. The options are still outstanding as of September 30, 2009.

During June 2009, in accordance to private placement memorandum, the Company issued 2,479,500 shares of common stock for proceeds of $855,000 dated June 10, 2009. Pursuant to the terms of the offering, up to 18 units were offered at the offering price of $50,000 per unit, with each unit comprised of 145,000 shares to purchase at $0.34 per share.

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS

SEPTEMBER 30, 2009 AND 2008

NOTE 7 STOCKHOLDERS EQUITY (CONTINUED)

Common Stock and Warrants (Continued)

During June 2009, the Company issued a warrant to purchase 464,000 shares of common stock at a purchase price of $0.34 per share for accounting services rendered. The warrant was valued at $391,342 using the Black-Scholes Option Pricing Formula, vesting 46,400 immediately and the remaining on equal monthly installments of 23,200 over the next eighteen months. The expense is being recognized based on service terms of the agreement over a twenty two month period. For the three month ending September 30, 2009, the Company recognized $53,365 of expense. For the nine month ending September 30, 2009, the Company recognized $124,518 of expense. The warrant is still outstanding as of September 30, 2009.

In June 2009, an employee was granted with an option to purchase up to 25,000 shares of common stock at a purchase price of $.34 per share. Using the Black-Scholes Option Pricing Formula, the options were valued at valued at $21,085, fair value. These options expire in 5 years and vest immediately. The Company recognized expense of $21,085 for the nine months ending September 30, 2009. The warrant is still outstanding as of September 30, 2009.

During June 2009, the Company issued 145,000 shares of common stock for legal services to a related party valued at $50,000, to settle accounts payable for $35,000 and $15,000 for legal services.

During June 2009, the Company issued 116,000 shares of common stock for accounting services valued at $40,000, fair value. The Company recognized $40,000 of accounting expense for the nine month period ending September 30, 2009.

During July 2009, the Company issued 100,000 shares of common stock for investor relation services valued at $75,000, fair value vesting 25,000 shares each quarter commencing July 1, 2009. The Company recognized $18,750 of investor relation expense for the nine month period ending September 30, 2009.

NOTE 8 STOCK BASED COMPENSATION

The Company uses the Black-Scholes option pricing model to calculate the grant-date fair value of an award, with the following assumptions for 2009 and 2008: no dividend yield in both years, expected volatility between 127% and 141% in 2009 and between 114% and 151% in 2008, risk-free interest rate between 0.03% and 2.81% in 2009 and between 2.46% and 3.41% in 2008 and expected option life of one month to five years in 2009 and five years in 2008.

As of September 30, 2009, there was $1,899,398 of unrecognized compensation expense related to non-vested market-based share awards that is expected to be recognized through November 2011.

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS

SEPTEMBER 30, 2009 AND 2008

NOTE 8 STOCK BASED COMPENSATION (CONTINUED)

The following tables summarize all stock option and warrant activity of the Company since December 31, 2004:

	Non-Qualified Stock Options and Warrants Outstanding and Exercisable		
	Number of Shares	Exercise Price	Weighted Average Exercise Price
Outstanding, December 31, 2004	-	$ -	$ -
Granted	680,000	$0.25 - $2.10	$ 0.99
Exercised	(300,000)	$ 0.25	$ 0.25
Outstanding, December 31, 2005	380,000	$1.40 - $2.10	$ 0.68
Granted	1,425,000	$0.25 - $1.00	$ 0.70
Cancelled	(260,000)	$1.40 - $2.10	$ (0.48)
Expired	(70,000)	$1.40 - $2.00	$ (0.12)
Outstanding, December 31, 2006	1,475,000	$0.25 - $2.00	$ 0.83
Granted	5,768,971	$0.25 - $0.72	$ 0.48
Rescinded	(200,000)	$ 0.50	$ 0.50
Forfeited	(125,019)	$ 1.00	$ 1.00
Expired	(574,981)	$ 1.00	$ 1.00

Outstanding, December 31, 2007	6,343,971	\$0.25 - \$2.00	$	0.48
Granted	3,495,001	\$0.001 - \$1.75	$	1.16
Expired	(115,000)	\$0.50 - \$2.00	$	0.07
Forfeited	(750,000)	\$ 0.72	$	0.72
Exercised	(807,770)	\$0.25 - \$0.50	$	0.53
Outstanding, December 31, 2008	8,166,202	\$0.001 - \$1.75	$	0.79
Granted	939,000	\$0.25 - \$0.45	$	0.30
Expired	(819,450)	\$0.25 - \$0.50	$	0.43
Forfeited				
Exercised	(1,133,384)	\$0.001 - \$0.25	$	0.20
Outstanding, September 30, 2009	7,152,368	\$0.25 - \$1.75	$	0.85
Exercisable, September 30, 2009	5,124,368	\$0.25 - \$1.75	$	0.73

LIGHTWAVE LOGIC, INC.

(A Development Stage Company)

NOTES TO FINANCIAL STATEMENTS

SEPTEMBER 30, 2009 AND 2008

NOTE 8 STOCK BASED COMPENSATION (CONTINUED)

Non-Qualified Stock Options and Warrants Outstanding

Range of Exercise Prices	Number Outstanding Currently Exercisable at September 30, 2009	Weighted Average Remaining Contractual Life	Weighted Average Exercise Price of Options and Warrants Currently Exercisable
$0.25 - $1.75	5,124,368	2.59 Years	$ 0.73

NOTE 9 COMMITMENTS AND CONTINGENCY

2005 Private Offering

During 2005, the Company raised $1,000,000 through the sale of 4,000,000 shares of common stock in a limited offering to persons believed to be accredited investors. The Company received a legal opinion from third party outside counsel as to the availability of an exemption from registration with the SEC with respect to the limited offering. In December 2005, the Company was informed by the SEC that it is investigating the circumstances surrounding the $1,000,000 offering including the subsequent public resale of certain shares originally sold in the offering, along with related matters. The Company has further been informed that the original issuance of the stock and subsequent resale may have been done, in the opinion of the SEC, in violation of the registration provisions of the Securities Act of 1933, as amended. These matters could lead to enforcement action by the SEC.

In or around January 2007, the SEC issued an investigative subpoena to the Company directing it to produce specified documents and information. Thereafter, an SEC subpoena seeking testimony by the Company s president was issued. The Company and its president have complied with all of the SEC s requests for documents and testimony. The SEC has not indicated whether or not it intends to take any action against the Company or any of its officers, directors or employees. There has been no communications with the SEC regarding this matter since December 2007.

Ronald R. Genova Lawsuit

During July 2007, Ronald R. Genova (plaintiff) filed a lawsuit in Philadelphia County, Court of Common Pleas against Defendants Lightwave Logic, Inc., (formerly Third-Order Nanotechnologies, Inc.), PSI-TEC Holdings, Inc. (which subsequently merged into Lightwave Logic, Inc.) and Universal Capital Management, Inc.

The lawsuit was settled in May 2008 against all defendants by the Company making a payment of $47,500 to the plaintiff, reflected in other expenses on the statement of operations for the nine month period ending September 30, 2008.

Prototype Commitment

During the third quarter of 2009, the Company entered into an agreement with a consultant to provide the Company prototype products and other services. At September 30, 2009 after paying a retainer deposit of $13,000 which the Company recorded as prepaid expenses, the Company has an obligation to pay the consultant $52,000 as services are provided.

NOTE 10 RELATED PARTY

Under the management agreement dated August 1, 2005, the related party was issued 200,000 shares of common stock with a fair value of $584,000 which was amortized over the term of the agreement (one year), which expired in 2006. In February 2007, the Company entered into a contract with the related party and issued 1,000,000 shares of common stock with a fair value of $580,000. In addition, the Company issued a warrant to purchase 500,000 shares of its common stock with a fair value of $348,000. This contract was renewed in March 2008 and the Company issued a warrant to purchase 400,000 shares of its common stock in exchange for management services for one year, valued at $332,000, fair value. For the three month period ending March 31, 2009, the Company recognized $55,330 in management expense. The unamortized expense as of December 31, 2008 is reflected as deferred charges in the equity section of the balance sheet. The Company decided not to renew its management contract. The contract was terminated on February 28, 2009.

At September 30, 2009 the Company has accrued officer salaries of $42,088.

NOTE 11 SUBSEQUENT EVENTS

Through October 2009, warrants to purchase 455,000 shares of common stock were exercised, pursuant to a private placement memorandum issued on October 3, 2007 with total proceeds of $455,000.

Item 2.

Management s Discussion and Analysis of Financial Condition and Results of Operations.

The following management's discussion and analysis of financial condition and results of operations provides information that management believes is relevant to an assessment and understanding of our plans and financial condition. The following selected financial information is derived from our historical financial statements and should be read in conjunction with such financial statements and notes thereto set forth elsewhere herein and the "Forward-Looking Statements" explanation included herein.

Overview

Lightwave Logic, Inc., formerly, Third-Order Nanotechnologies, Inc., formerly, PSI-TEC Holdings, Inc., formerly Eastern Idaho Internet Service, Inc. was organized under the laws of the State of Nevada in 1997, where we engaged in the business of marketing Internet services until June 30, 1998 when our operations were discontinued. We were then inactive until we acquired PSI-TEC Corporation as our wholly owned subsidiary on July 14, 2004, at which time our name was changed to PSI-TEC Holdings, Inc. On October 20, 2006, we completed a parent-subsidiary merger with PSI-TEC Corporation whereby we were the surviving corporation of the merger, and our name was changed to Third-Order Nanotechnologies, Inc. On March 10, 2008, we changed our name to Lightwave Logic, Inc. to better suit our strategic business plan and to facilitate stockholder recognition of our Company and its business.

We are a developmental stage company that has developed and continues to develop high-activity, high-stability electro-optic polymers (plastics) that we believe could have a broad range of applications in the electro-optic device market. We engineer our proprietary electro-optic plastics at the molecular level for superior performance, stability, cost-efficiency and ease of processability. We expect our electro-optic plastics to broadly replace more expensive, lower-performance materials that are currently used in fiber-optic ground, wireless and satellite communication networks.

In order to transmit digital information at extremely high-speeds (wide bandwidth) over the Internet, it is necessary to convert the electrical signals produced by a computer into optical signals for transmission over long-distance fiber-optic cable. The actual conversion of electricity to an optical signal may be performed by a molecularly-engineered material known as an electro-optic plastic.

We are currently developing electro-optic plastics that promise performance many times faster than any technology currently available and that have unprecedented thermal stability. High-performance electro-optic materials produced by our Company have demonstrated stability as high as 350 degrees Celsius. Stability above 300 degrees Celsius is necessary for vertical integration into many semi-conductor production lines. Recent results, independently confirmed by the University of Arizona, have demonstrated that the molecular performance of some of our Company's molecular designs perform 650% better than competitive electro-optic compounds.

Our revenue model relies substantially on the assumption that we will be able to successfully develop electro-optic products for applications within the industries described below. When appropriate, we intend to create specific materials for each of these applications and use our proprietary knowledge base to continue to enhance its discoveries.

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Satellite Reconnaissance

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Navigational Systems

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Radar Applications

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Telecommunications

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Optical Interconnects

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Optical Computing

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Entertainment

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Medical Applications

To be successful, we must, among other things:

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Develop and maintain collaborative relationships with strategic partners;

- Continue to expand our research and development efforts for our products;
- Develop and continue to improve on our manufacturing processes and maintain stringent quality controls;
- Produce commercial quantities of our products at commercially acceptable prices;
- Rapidly respond to technological advancements;
- Attract, retain and motivate qualified personnel; and
- Obtain and retain effective intellectual property protection for our products and technology.

We believe that Moore's Law (a principle which states the number of transistors on a silicon chip doubles approximately every eighteen months) will create markets for our high-performance electro-optic material products.

Plan of Operation

Since our inception, we have been engaged primarily in the research and development of our polymer materials technologies and potential products. We are devoting significant resources to engineer next-generation electro-optic plastics for future applications to be utilized by electro-optic device manufacturers, such as telecommunications component and systems manufacturers, networking and switching suppliers, semiconductor companies, aerospace companies and government agencies. We expect to continue to develop products that we intend to introduce to these rapidly changing markets and to seek to identify new markets. We expect to continue to make significant operating and capital expenditures for research and development activities.

As we move from a development stage company to a product vendor, we expect that our financial condition and results of operations will undergo substantial change. In particular, we expect to record both revenue and expense from product sales, to incur increased costs for sales and marketing and to increase general and administrative expense. Accordingly, the financial

condition and results of operations reflected in our historical financial statements are not expected to be indicative of our future financial condition and results of operations.

On August 8, 2006, we contracted with Triple Play Communications Corporation, a design and market consulting company, to deliver a comprehensive market opportunity assessment report for high speed 40G (commercial) & 100G+ (military/aerospace) modulators and system applications.

In August, 2006 we entered into a co-location agreement with InPlane Photonics, a New Jersey-based micro-optics company that allowed our scientists to establish a pre-production line in order to test and integrate our organic materials into waveguide devices and system prototypes as a first step toward product commercialization. This agreement was terminated at the end of January 2007 so that we could focus on pursuing a strategic relationship with Photon-X LLC, a Pennsylvania-based firm with extensive experience in polymer waveguide processing. We entered into a non-binding memorandum of understanding with Photon-X, LLC in December 2006 to work towards creating a fee for services agreement with Photon-X, LLC to design, develop, produce and market electro-optic components based upon our polymer technology, which we ultimately finalized in March 2007. This agreement with Photon-X, LLC enables our Company access to a full suite of fabrication facilities capable of producing commercial quantities of precision micro-optic devices such as high-speed (40GHz) telecom modulators, optical filters, and optical interconnects important to military and civilian global information movement and management markets.

On September 25, 2006 we obtained independent laboratory results that confirmed the thermal stability of our Perkinamine electro-optic materials. Thermal stability as high as 350 degrees Celsius was confirmed, significantly exceeding many other commercially available high performance electro-optic materials, such as CLD-1 which exhibits thermal degradation in the range of 250 degrees Celsius to 275 degrees Celsius. This high temperature stability of our materials eliminates a major obstacle to vertical integration of electro-optic polymers into standard microelectronic manufacturing processes (e.g. wave/vapor-phase soldering) where thermal stability of at least 300 degrees Celsius is required. In independent laboratory tests, ten-percent material degradation, a common evaluation of overall thermal stability, did not occur until our Perkinamine material base was exposed to temperatures as high as 350 degrees Celsius, as determined by Thermo-Gravimetric Analysis (TGA). The test results supported our Company's progress to introduce our materials into commercial applications such as optical interconnections, high-speed telecom and datacom modulators, and military/aerospace components.

In July 2007, our Company developed an innovative process to integrate our unique architecture into our anticipated commercial devices, whereby dendritic spacer systems are attached to its core chromophore. In the event we are successful in developing a commercially viable product, we believe these dendrimers will reduce the cost of manufacturing materials and reduce the cost and complexity of tailoring the material to specific customer requirements.

In January 2008, we retained TangibleFuture, Inc., a San Francisco based technology analysis and business development consulting company, to generate an independent assessment of our business opportunities in the fiber-optic telecommunications and optical computing sectors and develop strategies to penetrate those potential markets.

In March 2008, we commenced production of our first prototype photonic chip, which we delivered to Photon-X, LLC to fabricate a prototype polymer optical modulator and measure its technical properties. As a result of delays caused by engineering setbacks related to our material production, the production of our first prototype photonic chip was temporarily halted, along with the completion of our proof of concept tests that were being administered by Dr. Robert Norwood at the University of Arizona Photonics Department. In order to address this issue, Dr. David Eaton s role and responsibilities with the Company were significantly expanded, and we added two veteran synthetic chemists to our science and technology team. We have since overcome a majority of these engineering setbacks and we are currently in the continual process of extensive testing for material performance, including, among other tests, the (r33) Teng-Man testing protocol. In June 2009 we released test results conducted by Dr. C.C. Teng that re-confirmed our previous test results, and we intend to deliver completed independent validated material performance test results, including the (r33) Teng-Man testing protocol, as they become ripe for release.

In August 2009, Photon-X, LLC commenced a compatible study, process sequences, and fabricated wafers/chips containing arrays of phase modulators. The first one hundred plus modulators were completed at the end of October 2009, and are currently being characterized for insertion loss, Vpi, modulation dynamic range and initial frequency response. We expect these tests to be completed sometime during the fourth quarter 2009. The multi-step manufacturing process we utilized to fabricate our modulators involved exposing our proprietary Perkinamine material to extreme conditions that are typically found in standard commercial manufacturing settings. Our step-by-step analysis throughout the fabrication process demonstrated to us that our Perkinamine material can successfully withstand each step of the fabrication process without damage. We anticipate completing the development and building of functional prototype 40 Gb/s and 100 Gb/s modulators during the first and second quarter of 2010. However, we may incur delays in this process due to slower than expected material production within our laboratories and/or delays caused by the production of the modulator and testing procedures.

In August 2009, we retained Perdix, Inc. to help us identify and build prototype products for high growth potential target markets in fiber optic telecommunications systems. During October 2009, we initiated the development and production of our prototype amplitude modulator, which can ultimately be assembled into 1- and 2- dimensional arrays that are useful for optical computing applications, such as encryption and pattern recognition. We expect our initial prototype amplitude modulator to be completed by the end of the fourth quarter 2009.

We ultimately intend to use our next-generation electro-optic plastics for future applications vital to the following industries. We expect to create specific materials for each of these applications as appropriate:

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Satellite Reconnaissance

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Navigational Systems

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Radar Applications

- Telecommunications
- Optical Interconnects
- Optical Computing
- Entertainment
- Medical Applications

In an effort to maximize our future revenue stream from our electro-optic polymer products, we are currently evaluating each of or some combination of the following approaches:

- Licensing our technology for individual specific applications;
- Entering into collaborative or joint venture agreements with one or a number of partners; or
- Selling our products directly to commercial customers.

Additionally, we must create an infrastructure, including operational and financial systems, and related internal controls, and recruit qualified personnel. Failure to do so could adversely affect our ability to support our operations.

We have incurred substantial net losses since inception. We have satisfied our capital requirements since inception primarily through the issuance and sale of our common stock. During 2004 we raised approximately $529,000 from the issuance of convertible promissory notes, of which $30,000 was converted into common stock of the company during 2004 and the remaining $499,000 converted in 2005. Also, during 2005, we raised an aggregate of $1,000,000 from the private sale of our common stock. During 2006, we raised approximately $425,000 from the private sale of our common stock, of which $200,000 was rescinded during 2007. During 2007, we raised approximately $2,301,524 from the private sale of our common stock. During 2008, we raised approximately $414,000 from the private sale of our common stock and $375,270 upon the exercise of existing warrant holder s warrants. Through June 30, 2009, we raised approximately $855,000 from the sale of our private stock. We have also issued shares of our common stock and warrants to purchase shares of our common stock in exchange for services rendered to our company, including professional services. During October 2009 we obtained proceeds of $455,000 from the exercise of existing warrant holder s warrants.

Award

On September 26, 2006, we were awarded the 2006 Electro-Optic Materials Technology Innovation of the Year Award by Frost & Sullivan. Frost & Sullivan's Technology Innovation of the Year Award is bestowed upon candidates whose original research has resulted in innovations that have, or are expected to bring, significant contributions to multiple industries in terms of adoption, change, and competitive posture. This award recognizes the quality and depth of our Company's research and development program as well as the vision and risk-taking that enabled us to undertake such an endeavor.

Results of Operations

Comparison of three months ended September 30, 2009 to three months ended September 30, 2008

Revenues

We had no revenues during the three months ended September 30, 2009 and 2008 since we are a development stage company that has yet to commence revenue creating operations.

Operating Expenses

Our operating expenses were $617,762 and $1,195,974 for the three months ended September 30, 2009 and 2008, respectively, for a decrease of $578,212. This decrease in operating expenses was due primarily to a decrease in management fees, executive compensation and stock option amortization.

Included in our operating expenses for the three months ended September 30, 2009 was $258,626 for research and development expenses compared to $525,792 for the three months ended September 30, 2008, for a decrease of $267,166. This is primarily due to a reduction in employee stock option amortization offset by an increase in laboratory expenses and material testing expenses.

Research and development expenses currently consist primarily of compensation for employees engaged in internal research and product development activities; laboratory operations, outsourced prototype E.O. device development and processing work; material testing; fees; costs; and related operating expenses.

We expect to continue to incur substantial research and development expense to develop and commercialize our electro-optic material platform. These expenses could increase as a result of continued development and commercialization of our electro-optic materials technology; subcontracting work to build prototypes; expanding and equipping in-house laboratories; hiring additional technical and support personnel; pursuing other potential business opportunities; and incurring related operating expenses.

Employee stock option amortization decreased $283,099 from $396,328 for the three months ended September 30, 2008 to $113,229 for the three months ended September 30, 2009. Wages and salaries decreased $18,138 from $87,600 for the three months ended September 30, 2008 to $69,462 for the three months ended September 30, 2009.

Laboratory material testing expenses and E.O. device development increased $55,299 from ($30,645) for the three months ended September 30, 2008 to $24,654 for the three months ended September 30, 2009. The ($30,645) was due to an adjustment in accounts payable in 2008.

General and administrative expense consists primarily of compensation and support costs for management staff, and for other general and administrative costs, including executive, market research, investor relations, accounting and finance, legal, consulting and other operating expenses.

General and administrative expenses decreased $311,046 to $359,136 for the three months ended September 30, 2009 compared to $670,182 for the three months ended September 30, 2008. The decrease is due primarily to our decreases in management fees, market research fees, executive compensation, which were offset by an increase in accounting and administrative fees.

Management fees decreased $83,001 to $0 from $83,001 for the three months ended September 30, 2009 since the Company decided not to renew its management contract on February 28, 2009. Included in results of operations for the three months ended September 30, 2009 is amortization of warrants of $53,365 for accounting and administrative services. Legal fees decreased $5,987 to $16,732 for the three months ended September 30, 2009 compared to $22,719 for the three months ended September 30, 2008.

Market research, investor relations and public relation fees were $31,645 and $0 for the three months ended September 30, 2009 and 2008. During the three month period ending September 30, 2009, the Company entered into a contract for market research, investor relations and public relations.

Executive compensation decreased $309,991 from $497,606 for the three months ended September 30, 2008 to $187,615 for the three months ended September 30, 2009 due to common stock awarded to the Company s new Chief Executive Officer as part of the employment agreement executed in August 2008.

We expect general and administrative expense to increase in future periods as we increase the level of corporate and administrative activity, including increases associated with our operation as a public company; and significantly increase expenditures related to the future marketing, production and sales of our products.

Net Loss

Net loss was $617,843 and $1,194,101 for the three months ended September 30, 2009 and 2008, respectively, for a decrease of $576,258, primarily resulting from reduction in management fees, executive compensation and stock option amortization.

Comparison of nine months ended September 30, 2009 to nine months ended September 30, 2008

Revenues

We had no revenues during the nine months ended September 30, 2009 and 2008 since we are a development stage company that has yet to commence revenue creating operations.

Operating Expenses

Our operating expenses were $2,052,367 and $3,642,217 for the nine months ended September 30, 2009 and 2008, respectively, for a decrease of $1,589,850. This decrease in operating expenses was due primarily to a decrease in management fees and consulting fees.

Included in our operating expenses for the nine months ended September 30, 2009 was $981,262 for research and development expenses compared to $1,156,563 for the nine months ended September 30, 2008, for a decrease of $175,301. This is primarily due to a reduction in consulting fees offset by an increase in laboratory material testing expenses.

Research and development expenses currently consist primarily of compensation for employees engaged in internal research and product development activities; laboratory operations, outsourced prototype E.O. device development and processing work; material testing; fees; costs; and related operating expenses.

We expect to continue to incur substantial research and development expense to develop and commercialize our electro-optic material platform. These expenses could increase as a result of continued development and commercialization of our electro-optic materials technology; subcontracting work to build prototypes; expanding and equipping in-house laboratories; hiring additional technical and support personnel; pursuing other potential business opportunities; and incurring related operating expenses.

Consulting expenses decreased $201,607 from $201,607 for the nine months ended September 30, 2008 to $0 for the nine months ended September 30, 2009. Wages and salaries decreased $24,046 from $835,600 for the nine months ended September 30, 2008 to $811,554 for the nine months ended September 30, 2009.

Laboratory material testing expense and E.O. device development increased $73,955 from ($17,931) for the nine months ended September 30, 2008 to $56,024 for the nine months ended September 30, 2009. The ($17,931) for the nine month period ending September 30, 2008 was due to a ($35,145) adjustment in accounts payable in 2008.

General and administrative expense consists primarily of compensation and support costs for management staff, and for other general and administrative costs, including executive, marketing, investor relations, accounting and finance, legal, consulting and other operating expenses.

General and administrative expenses decreased $1,414,549 to $1,071,105 for the nine months ended September 30, 2009 compared to $2,485,654 for the nine months ended September 30, 2008. This decrease is primarily due to warrant agreements for consulting services during the nine month period ending September 30, 2008 valued at $976,193. There were also decreases in management fees, executive compensation, legal fees and market research fees, which were offset by an increase in accounting, administrative and other costs for the nine months ended September 30, 2009 compared to the nine months ended September 30, 2008.

Management fees decreased $293,006 to $55,330 for the nine months ended September 30, 2009 from $348,336 for the nine months ended September 30, 2008 since the Company decided not to renew its management contract on February 28, 2009.

Legal fees decreased $79,686 to $80,090 for the nine months ended September 30, 2009 compared to $159,776 for the nine months ended September 30, 2008. The decrease was due to the Company filing its first Form 10K-SB with the SEC in March 2008.

Market research, investor relations and public relation fees decreased $107,942 to $33,307 from $141,249 for the nine months ended September 30, 2009 and 2008.

Executive compensation decreased $151,084 to $529,618 from $680,702 mostly due to common stock awarded to the Company s new Chief Executive Officer as part of the employment agreement executed in August 2008.

Accounting including administrative fees increased $40,943 to $68,500 from $27,557 since the operations for the nine months ended September 30, 2009 included fees associated with startup, preparation of the 2008 10-K, resolution of prior payroll tax filing issues primarily associated with the October 2006 reorganization and other accounting issues. Included in results of operations for the nine months ended September 30, 2009 is amortization of warrants of $124,518 for accounting and administrative services. Management fees previously discussed for the nine months ended September 30, 2008 of $348,336 included accounting and administrative services.

We expect general and administrative expense to increase in future periods as we increase the level of corporate and administrative activity, including increases associated with our operation as a public company; and significantly increase expenditures related to the future marketing, production and sales of our products.

Other Income (Expense)

Other expense for the nine months ended September 30, 2008 consists primarily of the settlement of a lawsuit in the amount of $47,500.

Net Loss

Net loss was $2,053,443 and $3,680,813 for the nine months ended September 30, 2009 and 2008, respectively, for a decrease of $1,627,370, primarily resulting from the reduction in consulting expense and management fees in the nine months ended September 30, 2009.

Significant Accounting Policies

Our discussion and analysis of our financial condition and results of operations are based on our financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires us to make estimates and judgments that affect the reported amounts of assets, liabilities, revenues and expenses, and related disclosure of contingent assets and liabilities. On an ongoing basis, we evaluate our estimates based upon historical experience and various other assumptions that we believe to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Our actual results may differ materially from these estimates.

We believe our critical accounting policies affect our more significant estimates and judgments used in the preparation of our financial statements. Our Annual Report on Form 10-K for the year ended December 31, 2008 contains a discussion of these critical accounting policies. There have been no significant changes in our critical accounting policies since December 31, 2008. See our Note 1 in our unaudited financial statements for the nine months ended September 30, 2009, as set forth herein.

Liquidity and Capital Resources

During the nine months ended September 30, 2009, net cash used in operating activities was $795,833 and net cash used in investing activities was $73,703, which was due primarily to the Company s research and development activities and general and administrative expenditures. Net cash provided by financing activities for the nine months ended September 30, 2009 was $1,232,872. At September 30, 2009, our cash and cash equivalents totaled $451,561, our assets totaled $861,381, our liabilities totaled $97,174, and we had stockholders equity of $764,207.

Sources and Uses of Cash

Our future expenditures and capital requirements will depend on numerous factors, including: the progress of our research and development efforts; the rate at which we can, directly or through arrangements with original equipment manufacturers, introduce and sell products incorporating our plastic materials technology; the costs of filing, prosecuting, defending and enforcing any patent claims and other intellectual property rights; market acceptance of our products and competing technological developments; and our ability to establish cooperative development, joint venture and licensing arrangements. We expect that we will incur approximately $250,000 to $350,000 of expenditures through the remainder of 2009. Our cash requirements are expected to increase at a rate consistent with the Company s path to revenue growth as we expand our activities and operations with the objective of commercializing our electro-optic plastic technology during the latter portion of 2009. The Company has completed prototype phase modulators and expects to complete the amplitude modulator by the end of the fourth quarter of 2009.

Our business does not presently generate the cash needed to finance our current and anticipated operations. We believe we have raised sufficient capital to finance our operations through May 2010, and outstanding warrants, if exercised before their expiration in April, 2010, could supply the necessary funds to maintain our operations through September 2010. However, we will need to obtain additional future financing after such time or times to continue to finance our operations until such time that we can conduct profitable revenue-generating activities. Such future sources of financing may include cash from exercise of warrants, equity offerings, exercise of stock options and proceeds from debt instruments; but we cannot assure you that such equity or debt financing will be available to us or, if available, will be at rates or prices acceptable to us. If adequate funds are not available to satisfy either short-term or long-term capital requirements, or if planned revenues are not generated, we may be required to substantially limit our operations. This limitation of operations may include reductions in capital expenditures and reductions in staff and discretionary costs. The successful completion of the Company s prototype should lead to adequate financing to fulfill its development activities and achieve a level of revenue adequate to support the Company s business plan for the foreseeable future.

We expect that our cash used in operations will increase during the remainder of 2009 and beyond as a result of the following planned activities:

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The addition of management, sales, marketing, technical and other staff to our workforce;

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Increased spending for the expansion of our research and development efforts, including purchases of additional laboratory and production equipment;

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Increased spending in marketing as our products are introduced into the marketplace;

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Developing and maintaining collaborative relationships with strategic partners;

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Developing and improving our manufacturing processes and quality controls; and

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Increases in our general and administrative activities related to our operations as a reporting public company and related corporate compliance requirements.

Analysis of Cash Flows

For the nine months ended September 30, 2009

Net cash used in operating activities was $795,833 for the nine months ended September 30, 2009, consisting of payments for research and development, legal, professional and consulting expenses, rent and other expenditures necessary to develop our business infrastructure, offset by $55,330 in deferred charges, $890,723 in options and warrants issued for services, $128,000 in common stock issued for services, $132,058 in purchase right agreement amortization, $18,750 in amortization of prepaid expenses, ($4,189) in prepaid expenses and $26,276 in accounts payable and accrued expenses.

Net cash used by investing activities was $73,703 for the nine months ended September 30, 2009, consisting of $19,975 for cost of intangibles, as well as the purchase of equipment for $53,728.

Net cash provided by financing activities was $1,232,872 for the nine months ended September 30, 2009 and consisted of $855,000 proceeds from private placement, $320,234 from the exercise of warrants, $45,138 from the exercise of purchase right agreements and $12,500 of proceeds from subscription receivable.

Inflation and Seasonality

We do not believe that our operations are significantly impacted by inflation. Our business is not seasonal in nature.

Item 3.

Quantitative and Qualitative Disclosures about Market Risk.

Not applicable.

Item 4T.

Controls and Procedures.

Evaluation of Disclosure Controls and Procedures. The Company s management, with the participation of the Company s Chief Executive Officer and Chief Financial Officer, evaluated the effectiveness of the Company s disclosure controls and procedures (as defined in Rules 13a-15(e) and 15d-15(e) under the Securities Exchange Act of 1934, as amended) as of September 30, 2009. Based on this evaluation, the Company s Chief Executive Officer and Chief Financial Officer concluded that, as of September 30, 2009 the Company s disclosure controls and procedures were effective, in that they provide reasonable assurance that information required to be disclosed by the Company in the reports that it files or submits under the Securities Exchange Act of 1934, as amended, is recorded, processed, summarized and reported within the time periods specified in the Securities and Exchange Commission s rules and forms, and is accumulated and communicated to the Company s management, including the Company s Chief Executive Officer and Chief Financial Officer, as appropriate to allow timely decisions regarding required disclosure.

Changes in Internal Control Over Financial Reporting. There have been no changes in the Company s internal controls over financial reporting during the last quarter covered by this Quarterly Report on Form 10-Q that have materially affected, or are reasonably likely to materially affect, the Company s internal control over financial reporting.

PART II - OTHER INFORMATION

Item 1.

Legal Proceedings.

Not applicable.

Item 1A.

Risk Factors.

Not applicable.

Item 2.

Unregistered Sales of Equity Securities and Use of Proceeds.

During the period covered by this Quarterly Report on Form 10-Q, warrants to purchase 455,000 shares of our common stock with an exercise price of $1.00 per share were exercised, which resulted in proceeds of $455,000 to our Company. No underwriters were utilized and no commissions or fees were paid with respect to any of the above transactions. These persons were the only offerees in connection with these transactions. We relied on Sections 4(2) and (4(6) of the Securities Act since these transactions did not involve any public offering.

Item 3.

Defaults Upon Senior Securities.

Not applicable.

Item 4.

Submission of Matters to a Vote of Security Holders.

Not applicable.

Item 5.

Other Information.

Not applicable.

Item 6.

Exhibits

The following exhibits are included herein:

Exhibit No.

Description of Exhibit

31.1

Certification pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended, executed by the Principal Executive Officer of the Company.

31.2

Certification pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934, as amended, executed by the Principal Financial Officer of the Company.

32.1

Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, executed by the Principal Executive Officer of the Company.

32.2

Certification pursuant to 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002, executed by the Principal Financial Officer of the Company.

SIGNATURES

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.

LIGHTWAVE LOGIC, INC.

Registrant

By: /s/ James S. Marcelli
James S. Marcelli,

Chief Executive Officer

Date: November 13, 2009

By: /s/ James S. Marcelli
James S. Marcelli,

Chief Executive Officer

Date: November 13, 2009

By: /s/ Andrew J. Ashton
Andrew J. Ashton,

Treasurer

Date: November 13, 2009