

STATEMENT OF CHANGES IN BENEFICIAL OWNERSHIP

Check this box if no longer subject to Section 16. Form 4 or Form 5 obligations may continue. See Instruction 1(b).

Filed pursuant to Section 16(a) of the Securities Exchange Act of 1934 or Section 30(h) of the Investment Company Act of 1940

OMB APPROVAL	
OMB Number:	3235-0287
Estimated average burden hours per response:	0.5

1. Name and Address of Reporting Person* <u>GREEHEY WILLIAM E</u> (Last) (First) (Middle) <u>2330 NORTH LOOP 1604 WEST</u> (Street) <u>SAN ANTONIO TX 78248</u> (City) (State) (Zip)	2. Issuer Name and Ticker or Trading Symbol <u>NuStar Energy L.P. [NS]</u>	5. Relationship of Reporting Person(s) to Issuer (Check all applicable) <input checked="" type="checkbox"/> Director 10% Owner Officer (give title below) Other (specify below)
	3. Date of Earliest Transaction (Month/Day/Year) <u>05/25/2011</u>	
4. If Amendment, Date of Original Filed (Month/Day/Year)		

Table I - Non-Derivative Securities Acquired, Disposed of, or Beneficially Owned

1. Title of Security (Instr. 3)	2. Transaction Date (Month/Day/Year)	2A. Deemed Execution Date, if any (Month/Day/Year)	3. Transaction Code (Instr. 8)		4. Securities Acquired (A) or Disposed Of (D) (Instr. 3, 4 and 5)			5. Amount of Securities Beneficially Owned Following Reported Transaction(s) (Instr. 3 and 4)	6. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	7. Nature of Indirect Beneficial Ownership (Instr. 4)
			Code	V	Amount	(A) or (D)	Price			
Common Units	05/25/2011		P		45,900	A	\$62.67 ⁽¹⁾	1,362,845	D	
Common Units	05/26/2011		P		7,445	A	\$62.8589 ⁽²⁾	1,370,290	D	

Table II - Derivative Securities Acquired, Disposed of, or Beneficially Owned (e.g., puts, calls, warrants, options, convertible securities)

1. Title of Derivative Security (Instr. 3)	2. Conversion or Exercise Price of Derivative Security	3. Transaction Date (Month/Day/Year)	3A. Deemed Execution Date, if any (Month/Day/Year)	4. Transaction Code (Instr. 8)		5. Number of Derivative Securities Acquired (A) or Disposed of (D) (Instr. 3, 4 and 5)		6. Date Exercisable and Expiration Date (Month/Day/Year)		7. Title and Amount of Securities Underlying Derivative Security (Instr. 3 and 4)	8. Price of Derivative Security (Instr. 5)	9. Number of derivative Securities Beneficially Owned Following Reported Transaction(s) (Instr. 4)	10. Ownership Form: Direct (D) or Indirect (I) (Instr. 4)	11. Nature of Indirect Beneficial Ownership (Instr. 4)
				Code	V	(A)	(D)	Date Exercisable	Expiration Date					

Explanation of Responses:

- This transaction was executed in multiple trades at prices ranging from \$62.36 per unit to \$62.91 per unit. The price reported above reflects the weighted average purchase price. Note that due to field restrictions in Table I, Column 4, the last decimal place does not appear. The total weighted average purchase price is actually \$62.67001. Upon request from the Securities and Exchange Commission or a unitholder of the issuer, full information regarding the number of units purchased at each separate price will be made available.
- This transaction was executed in multiple trades at prices ranging from \$62.61 per unit to \$63.00 per unit. The price reported above reflects the weighted average purchase price. Note that due to field restrictions in Table I, Column 4, the last decimal place does not appear. The total weighted average purchase price is actually \$62.85888. Upon request from the Securities and Exchange Commission or a unitholder of the issuer, full information regarding the number of units purchased at each separate price will be made available.

/s/ Matthew D. Willcox, as
Attorney-in-Fact for William 05/27/2011
E. Greehey

** Signature of Reporting Person Date

Reminder: Report on a separate line for each class of securities beneficially owned directly or indirectly.

* If the form is filed by more than one reporting person, see Instruction 4 (b)(v).

** Intentional misstatements or omissions of facts constitute Federal Criminal Violations See 18 U.S.C. 1001 and 15 U.S.C. 78ff(a).

Note: File three copies of this Form, one of which must be manually signed. If space is insufficient, see Instruction 6 for procedure.

Persons who respond to the collection of information contained in this form are not required to respond unless the form displays a currently valid OMB Number.