

Introducing UKFields

The screenshot displays the UKFields software interface. On the left is a 'FieldView' tree showing a hierarchy of fields: Harding, Keith, Leaddon, Linnhe, Maclure, Ness, Nevis, Skene, Tullich, Onshore, Quad 97, Wareham, Wylch Farm, Quad 99, Hordean, Singleton, Storrington, Quad J, Elswick, Ironville, Trumfleet, Quad N, Rempstone, Quad O, Long Clawson, Quad K, Goodworth, Stockbridge, Quad R, Albury, Brockham, Herrard, Humbly Grove, Humbly Grove, and Palmers Woc.

The main window shows 'Field Details' for the 'Heather' field. The details include:

- Field Name: Heather
- Field Type: Oil
- STOIP [MMstb]: 464.0
- Location: Offshore
- Discovery Date: Dec-1973
- GIIP [TCF]:
- Quadrant / Block: 2/5
- Production Start: Oct-1978
- Operator: Lundin Oil
- Field Status: Producing
- 35 API Gravity
- Triassic
- Jurassic - Middle Jurassic - BrentGroup

The 'Field History' tab is active, showing a table of production data from January 1980 to December 1981. The table has 12 columns: Month, Oil Rate [bbls/d], Gas Rate [Mcf/d], Water Rate [bbls/d], Liquid Rate [bbls/d], WI Rate [bbls/d], Oil Volume [bbls], Gas Volume [Mcf], Water Volume [bbls], Liquid Volume [bbls], WI Volume [bbls], and Cumulative Oil [bbls].

Month	Oil Rate [bbls/d]	Gas Rate [Mcf/d]	Water Rate [bbls/d]	Liquid Rate [bbls/d]	WI Rate [bbls/d]	Oil Volume [bbls]	Gas Volume [Mcf]	Water Volume [bbls]	Liquid Volume [bbls]	WI Volume [bbls]	Cumulative Oil [bbls]
Jan-1980	14,338.7	8,631.6	0.0	14,338.7	2,580.2	444,500.9	267,579.2	0.0	444,500.9	79,987.5	444,500.9
Feb-1980	13,525.0	7,350.3	0.0	13,525.0	4,539.7	392,226.3	213,159.3	0.0	392,226.3	131,652.0	836,727.2
Mar-1980	11,822.0	6,421.6	0.0	11,822.0	7,730.4	366,482.1	199,068.8	0.0	366,482.1	239,641.8	1,203,209.3
Apr-1980	11,398.0	6,670.9	0.0	11,398.0	24,964.7	341,939.3	200,128.2	0.0	341,939.3	748,940.3	1,545,148.5
May-1980	11,034.6	6,404.5	0.0	11,034.6	25,611.7	342,071.3	198,539.1	0.0	342,071.3	793,962.8	1,887,219.9
Jun-1980	12,879.4	6,933.4	0.0	12,879.4	22,063.4	386,383.1	208,003.4	0.0	386,383.1	661,901.9	2,273,602.9
Jul-1980	12,826.1	7,324.9	12.8	12,838.9	21,056.1	397,610.4	227,073.3	396.3	398,006.6	652,737.7	2,671,213.3
Aug-1980	12,990.5	7,973.1	37.3	13,027.8	19,834.2	402,705.1	247,167.4	1,157.3	403,862.4	614,860.4	3,073,918.4
Sep-1980	14,271.6	9,816.3	11.3	14,282.9	19,748.1	428,147.4	294,489.0	339.6	428,487.0	592,443.5	3,502,065.8
Oct-1980	17,294.1	11,756.4	23.1	17,317.3	30,127.2	536,118.3	364,447.4	717.0	536,835.3	933,942.5	4,038,184.1
Nov-1980	19,771.4	13,139.4	21.4	19,792.8	33,242.9	593,141.7	394,182.3	641.6	593,783.3	997,287.2	4,631,325.8
Dec-1980	18,805.7	12,905.8	225.6	19,031.3	34,956.9	582,977.4	400,079.9	6,994.3	589,971.6	1,083,665.1	5,214,303.1
Jan-1981	18,233.8	11,332.6	300.3	18,534.0	34,472.8	565,246.4	351,310.3	9,308.9	574,555.3	1,068,657.7	5,779,549.5
Feb-1981	19,202.1	12,299.6	412.4	19,614.5	41,036.5	537,659.3	344,388.6	11,548.1	549,207.4	1,149,022.6	6,317,208.8
Mar-1981	21,033.7	13,364.9	470.5	21,504.3	39,459.6	652,045.8	414,311.7	14,586.1	666,631.8	1,223,248.6	6,969,254.6
Apr-1981	20,865.0	13,612.6	518.1	21,383.0	39,343.4	625,949.4	408,378.8	15,542.1	641,491.5	1,180,301.8	7,595,204.0
May-1981	21,088.1	14,082.6	583.1	21,671.2	40,268.0	653,731.4	436,559.9	18,076.9	671,808.4	1,248,307.2	8,248,935.4
Jun-1981	22,934.7	15,318.3	719.6	23,654.3	38,845.2	688,042.4	459,549.8	21,586.6	709,629.0	1,165,357.2	8,996,977.8
Jul-1981	25,990.5	16,814.3	1,117.6	27,108.1	38,151.4	805,705.8	521,244.5	34,644.3	840,350.1	1,182,691.9	9,742,683.6
Aug-1981	27,031.6	17,608.3	1,272.6	28,304.1	37,073.4	837,979.9	545,858.8	39,447.7	877,428.6	1,149,274.2	10,580,662.5
Sep-1981	27,974.6	17,624.4	1,491.7	29,466.3	43,830.3	839,236.8	528,731.2	44,752.0	883,988.8	1,314,910.0	11,419,899.3
Oct-1981	30,904.1	20,092.9	1,318.6	32,222.7	46,794.4	958,026.2	622,880.1	40,877.5	998,903.7	1,450,625.3	12,377,925.5
Nov-1981	31,011.9	20,059.9	1,192.1	32,204.0	46,946.1	930,357.3	601,797.2	35,763.9	966,121.2	1,408,382.9	13,308,282.8
Dec-1981	32,218.8	21,467.9	1,380.1	33,598.9	46,380.5	998,784.2	665,504.9	42,783.3	1,041,567.4	1,437,794.1	14,307,066.9



***UKFields* is a database application containing all UK field production and injection data**

- ❑ Analyse the production and injection history of any field in the UK, based on a rate or ratio v's time basis or rate or ratio v's cumulative basis
- ❑ Obtain well statistics [maximum rates, cumulative recoveries, etc] on a field-by-field basis
- ❑ Perform field level decline curve analysis on the oil or gas rate v's time basis, or any rates and ratios displayed on a cumulative basis
- ❑ Examine the key production profile statistics for any UK oil and gas field for analogue field comparison



Field Details

- Quickly navigate between fields with the FieldView tree structure
- Easy copy and paste tables to clipboard

WellName	Months on Production	Max Oil Rate [bbls/d]	Max Gas Rate [Mcf/d]	Max Water Rate [bbls/d]	Cumulative Oil [bbls]	Cumulative Gas [Mcf]	Cumulative Water [bbls]
205-H42	169	1,698.5	1,257.7	214.7	1,810,232.6	245,906.4	81,358.7
205-H43	166	1,348.9	1,704.4	3,676.9	2,192,401.5	295,847.5	3,563,768.8
205-H44	21	1,885.7	697.3	676.1	306,399.2	23,957.9	156,150.8
205-H45	18	407.9	568.5	723.3	166,044.7	25,876.3	118,380.5
205-H46	156	785.9	380.6	168.0	963,661.9	97,775.1	8,887.5
205-H47	155	4,950.6	3,260.3	6,305.8	5,943,002.8	1,062,525.1	16,109,512.7
205-H48	140	1,698.2	2,440.0	6,792.5	1,365,461.2	598,116.9	22,772,415.8
205-H49	131	945.6	986.2	721.8	1,641,181.4	185,549.4	795,101.2
205-H50	8	459.6	186.8	4.5	63,728.4	5,509.9	591.2
205-H51	121	1,214.4	710.1	3,538.6	757,538.5	128,066.7	2,735,231.0
205-H52	3	85.3	119.5	57.0	2,849.3	666.7	2,528.5
205-H52.1	123	829.1	515.1	1,714.1	598,852.8	84,478.4	1,347,032.1
205-H54	106	935.3	695.0	346.1	331,850.4	79,553.5	398,553.8
205-H55	120	1,613.1	1,374.9	2,793.0	1,783,884.6	229,464.9	1,852,720.3
205-H56	93	687.5	481.5	521.8	1,019,389.6	101,618.2	774,432.9
205-H57	93	508.7	570.9	573.9	669,701.3	102,064.8	1,033,698.9
205-H58	93	1,488.3	1,344.7	387.7	1,539,689.0	208,563.8	468,427.4
205-H5Z	71	3,201.4	2,174.3	1,275.6	1,869,488.9	296,860.2	419,637.3
205-H6	20	309.6	268.0	0.0	45,330.7	7,296.2	0.0
205-H7	15	2,509.1	1,474.7	0.0	590,839.6	59,401.0	0.0
205-H8	101	9,631.0	6,481.1	13,180.3	14,039,114.7	1,862,966.4	10,418,592.9
205-H9	4	1,273.4	749.5	0.0	100,410.5	9,994.5	0.0
Minimum		2.5	0.0				
Average		2,045.3	1,460.8				
Maximum		9,631.0	6,481.1				

The screenshot shows the UKFields software interface. On the left is a 'FieldView' tree structure with a tree icon. The main window is titled 'Field Details' and contains several tabs: 'Field Details', 'Time Analysis', 'Cumulative Analysis', and 'Predictions'. The 'Field Details' tab is active, showing a form with the following information:

- Field Name: Heather
- Field Type: Oil
- Location: Offshore
- Discovery Date: Dec-1973
- Quadrant / Block: 2/5
- Production Start: Oct-1978
- Operator: Lundin Oil
- Field Status: Producing
- STOIP [MMstb]: 464.0
- GIIP [TCF]:
- 35 API Gravity
- Jurassic - Middle Jurassic - BrentGroup

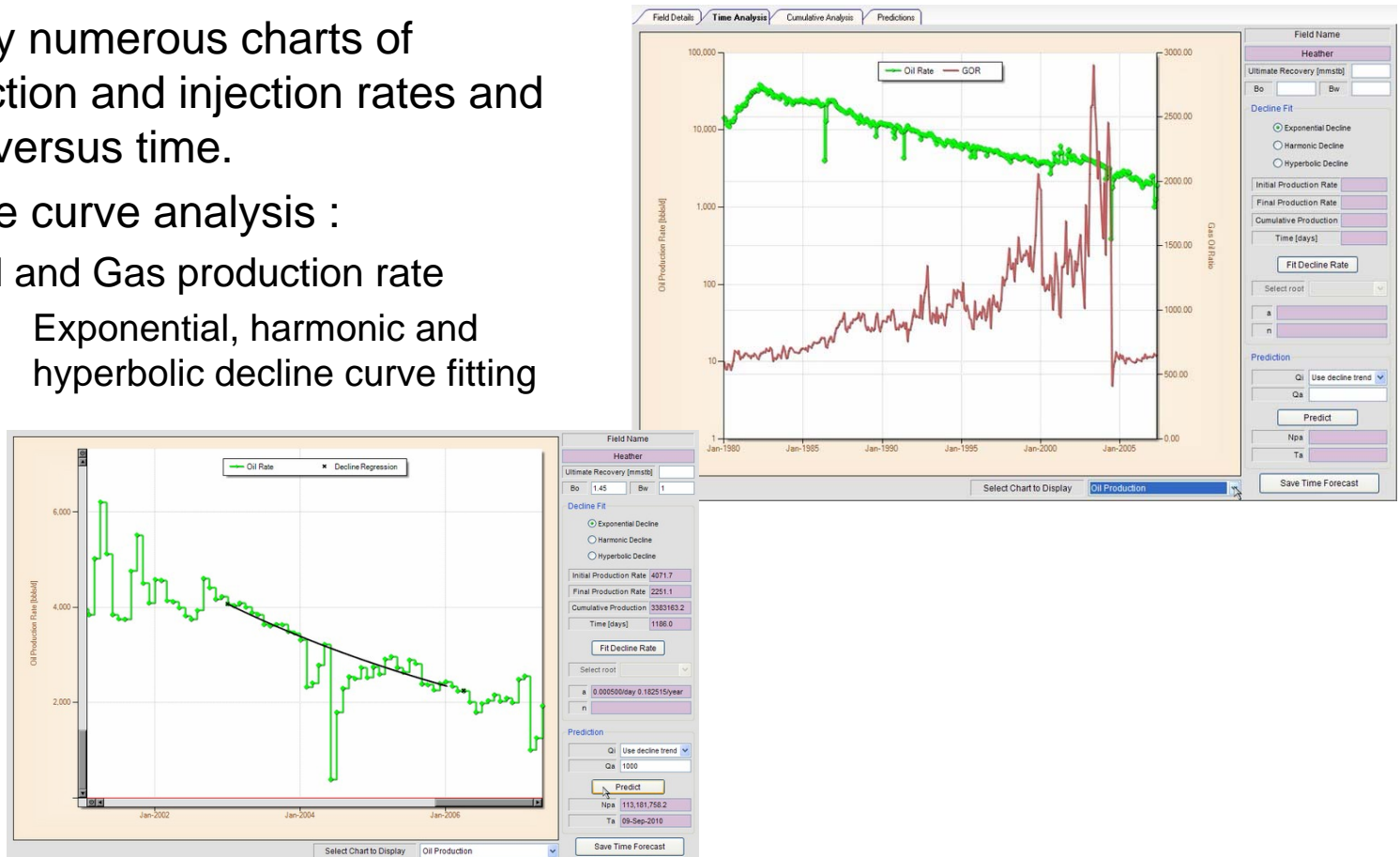
Below the form is a 'Field History' table with columns: Month, Oil Rate [bbls/d], Gas Rate [Mcf/d], Water Rate [bbls/d], Liquid Rate [bbls/d], WI Rate [bbls/d], Oil Volume [bbls], Gas Volume [Mcf], Water Volume [bbls], Liquid Volume [bbls], WI Volume [bbls], and Cumulative Oil [bbls]. The table shows data from Jan-1980 to Dec-1981.

Month	Oil Rate [bbls/d]	Gas Rate [Mcf/d]	Water Rate [bbls/d]	Liquid [bbls]
Jan-1980	14,338.7	8,631.6	0.0	14,
Feb-1980	13,	Copy Field Table to clipboard		13,
Mar-1980	11,	Copy Well Table to clipboard		11,
Apr-1980	11,			11,
May-1980	11,	Copy Prediction Table to clipboard		11,
Jun-1980	12,879.4	6,933.4	0.0	12,



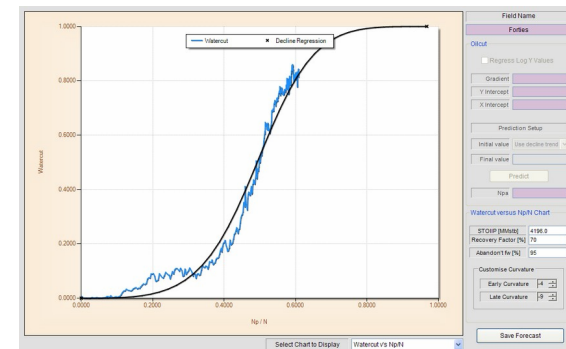
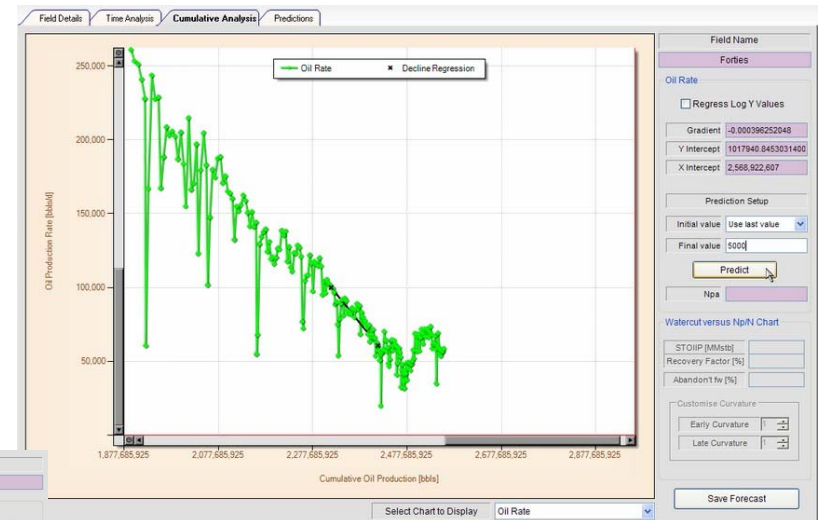
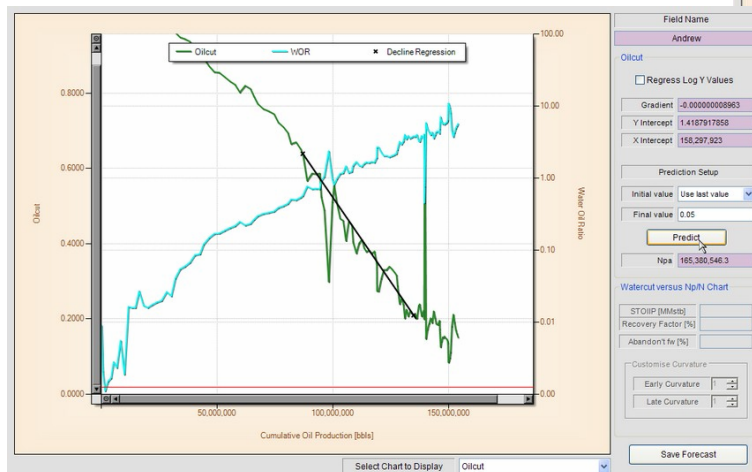
Time Analysis

- Display numerous charts of production and injection rates and ratios versus time.
- Decline curve analysis :
 - Oil and Gas production rate
 - Exponential, harmonic and hyperbolic decline curve fitting



Cumulative Analysis

- Display numerous charts of production and injection rates and ratios versus cumulative production.
- Decline curve analysis :
 - Oil rate, Gas rate v's cumulative
 - Oilcut, Watercut and Water-Oil ratio v's cumulative
 - Watercut v's normalised cumulative (Np/N)



Predictions

- Rate v's Time Predictions
- Rate v's Cumulative Prediction
 - Converted to Time Prediction
- Oilcut, watercut and water-oil ratio prediction methods
 - Converted to Time Prediction

Rate v's Time Prediction Setup

	Oil	Gas
Decline	Hyperbolic	Exponential
'a' value	0.0005529645770	
'n' value	0.66701257002651	
Initial Rate	Use last rate	Use decline trend
Final Rate	1000	

Cumulative Prediction Setup

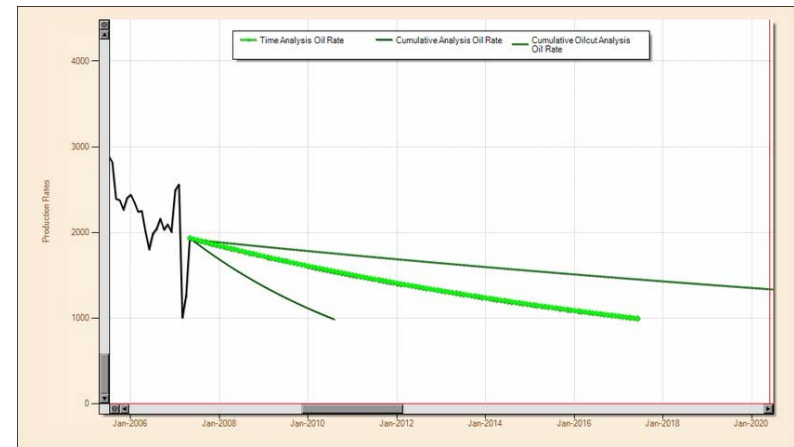
	Oil	Gas	Oilcut	Watercut	Water Oil Ratio
Log Y Fit?	<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No
Gradient	-0.0005529645770		-1.1797788205412		
Y Intercept	63391.7648606694		1.3442340890804		
Initial value	Use last value		Use last value		
Final value	1000	0	0.05	0	0

Convert to Time Options

Input Liquid Rate

Link to Oil Rate v's Time Prediction
Link to Oil Rate v's Cumulative Prediction
Input Constant Liquid Rate Value

Month	Oilrate Time Oil Rate [bbls/d]	Prediction Charts Oilrate Time Cumulative Oil [bbls]	Month	Oilrate Cumulative Oil Rate [bbls/d]	Prediction Tables Oilrate Cumulative Oil [bbls]	Month	Oilcut Cumulative Oil Rate [bbls/d]	Prediction Tables Oilcut Cumulative Oil Rate [bbls/d]	Month	Oilcut Cumulative Water Rate [bbls/d]
May-2007	1935.4	111,193,797.0	May-2007	1935.4	111,193,797.0	May-2007	1935.4	111,193,797.0	May-2007	4,206.5
Jun-2007	1923.8	111,255,358.4	Jun-2007	1901.8	111,254,694.0	Jun-2007	1923.8	111,255,358.4	Jun-2007	4,295.2
Jul-2007	1912.6	111,314,649.6	Jul-2007	1869.7	111,312,615.8	Jul-2007	1912.6	111,314,649.6	Jul-2007	4,284.2
Aug-2007	1901.2	111,375,486.6	Aug-2007	1837.2	111,371,456.9	Aug-2007	1901.2	111,375,486.6	Aug-2007	4,272.9
Sep-2007	1889.8	111,435,959.7	Sep-2007	1805.3	111,429,175.9	Sep-2007	1889.8	111,435,959.7	Sep-2007	4,261.6
Oct-2007	1878.9	111,494,204.3	Oct-2007	1774.9	111,484,196.4	Oct-2007	1878.9	111,494,204.3	Oct-2007	4,250.7
Nov-2007	1867.7	111,553,969.4	Nov-2007	1744.0	111,540,004.2	Nov-2007	1867.7	111,553,969.4	Nov-2007	4,239.4
Dec-2007	1856.9	111,611,533.3	Dec-2007	1714.6	111,593,156.9	Dec-2007	1856.9	111,611,533.3	Dec-2007	4,228.3
Jan-2008	1845.9	111,670,601.0	Jan-2008	1684.8	111,647,070.2	Jan-2008	1845.9	111,670,601.0	Jan-2008	4,217.2
Feb-2008	1834.9	111,729,318.3	Feb-2008	1655.5	111,700,046.2	Feb-2008	1834.9	111,729,318.3	Feb-2008	4,205.9
Mar-2008	1824.7	111,784,060.7	Mar-2008	1628.5	111,748,950.7	Mar-2008	1824.7	111,784,060.7	Mar-2008	4,195.4
Apr-2008	1814.9	111,842,107.4	Apr-2008	1603.2	111,800,106.0	Apr-2008	1814.9	111,842,107.4	Apr-2008	4,184.2
May-2008	1803.6	111,898,018.8	May-2008	1578.2	111,850,000.0	May-2008	1803.6	111,898,018.8	May-2008	4,173.3
Jun-2008	1793.0	111,955,393.6	Jun-2008	1552.3	111,900,000.0	Jun-2008	1793.0	111,955,393.6	Jun-2008	4,162.0
Jul-2008	1782.8	112,010,658.9	Jul-2008	1527.0	112,000,000.0	Jul-2008	1782.8	112,010,658.9	Jul-2008	4,151.2
Aug-2008	1772.3	112,067,219.9	Aug-2008	1502.2	112,000,000.0	Aug-2008	1772.3	112,067,219.9	Aug-2008	4,140.0
Sep-2008	1761.9	112,123,752.1	Sep-2008	1477.4	112,000,000.0	Sep-2008	1761.9	112,123,752.1	Sep-2008	4,128.8
Oct-2008	1751.9	112,178,060.9	Oct-2008	1452.7	112,004,923.6	Oct-2008	1751.9	112,178,060.9	Oct-2008	4,117.9
Nov-2008	1741.7	112,233,793.7	Nov-2008	1427.6	112,130,286.5	Nov-2008	1741.7	112,233,793.7	Nov-2008	4,106.7
Dec-2008	1731.8	112,287,479.8	Dec-2008	1402.7	112,173,491.2	Dec-2008	1731.8	112,287,479.8	Dec-2008	4,095.9
Jan-2009	1721.7	112,342,574.6	Jan-2009	1378.5	112,217,314.1	Jan-2009	1721.7	112,342,574.6	Jan-2009	4,084.7
Feb-2009	1711.7	112,397,348.7	Feb-2009	1354.5	112,260,375.1	Feb-2009	1711.7	112,397,348.7	Feb-2009	4,073.6
Mar-2009	1702.7	112,449,270.9	Mar-2009	1330.4	112,298,783.2	Mar-2009	1702.7	112,449,270.9	Mar-2009	4,063.5
Apr-2009	1692.8	112,500,897.2	Apr-2009	1301.4	112,340,427.7	Apr-2009	1692.8	112,500,897.2	Apr-2009	4,052.4
May-2009	1683.3	112,553,080.3	May-2009	1279.5	112,380,090.8	May-2009	1683.3	112,553,080.3	May-2009	4,041.6
Jun-2009	1673.6	112,606,024.9	Jun-2009	1257.2	112,420,321.6	Jun-2009	1673.6	112,606,024.9	Jun-2009	4,030.5
Jul-2009	1664.2	112,658,225.8	Jul-2009	1236.0	112,458,638.3	Jul-2009	1664.2	112,658,225.8	Jul-2009	4,019.7
Aug-2009	1654.6	112,711,173.5	Aug-2009	1214.5	112,497,503.3	Aug-2009	1654.6	112,711,173.5	Aug-2009	4,008.6
Sep-2009	1645.1	112,763,816.2	Sep-2009	1193.4	112,535,692.6	Sep-2009	1645.1	112,763,816.2	Sep-2009	3,997.5
Oct-2009	1635.9	112,814,529.8	Oct-2009	1173.3	112,572,065.0	Oct-2009	1635.9	112,814,529.8	Oct-2009	3,986.8
Nov-2009	1626.5	112,866,578.5	Nov-2009	1152.9	112,608,957.8	Nov-2009	1626.5	112,866,578.5	Nov-2009	3,975.7



More information ...

Visit our homepage today for more product details and downloads

www.PetroleumSolutions.co.uk

