

TransGlobe Energy

Initiation of coverage

Egyptian focus, asset-backed plus growth

Oil & gas

21 November 2014

Price **US\$3.85**
Market cap **US\$288m**

Net cash (US\$m) at 30 Sept 2014 (includes convertible debentures)	5.3
Shares in issue	74.9m
Free float	72%
Code	TGA
Primary exchange	NASDAQ
Secondary exchange	TSX

Share price performance



%	1m	3m	12m
Abs	(21.1)	(39.0)	(55.5)
Rel (local)	(26.8)	(41.0)	(61.4)
52-week high/low		US\$9.2	US\$3.7

Business description

TransGlobe Energy (TGA) is an exploration and production company with producing assets in Egypt (16,000b/d) and Yemen (200b/d). The group currently has an active 18-well exploration programme underway adjacent to its producing licences in Egypt targeting 58.4mmbbl of prospective resources.

Next events

North-West Gharib exploration program Q414

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We see TransGlobe Energy (TGA) as developing a strong production hub in Egypt, with processing and export facilities in place, surrounded by highly prospective exploration acreage on all sides. Within this acreage we expect positive newsflow from an 18-well exploration programme currently underway, in addition to the identification of further prospects from the company's ongoing 3D seismic programmes covering the area. At the corporate level, TGA's well-funded status and transferrable secondary recovery skill set is supportive for M&A, which, if selective, could see the group replicate its Egyptian success. We value TGA at US\$7.5/share, with producing assets, cash and receivables representing US\$6.8 of this total.

Year end	Revenue (US\$m)	PBT* (US\$m)	EPS* (c)	DPS (c)	Capex (US\$m)	Net (debt)/cash (US\$m)
12/13	315.7	143.9	79.1	0.0	(66.7)	34.5
12/14e	303.0	142.4	97.5	20.0	(66.9)	72.4
12/15e	258.3	102.6	62.8	20.0	(20.7)	179.9
12/16e	209.3	84.9	57.2	20.0	(15.5)	288.2

Note: *PBT and EPS are normalised, excluding intangible amortisation, exceptional items and share-based payments.

Egyptian production hub, key elements in place

We view Egypt as a production hub for TGA, with material production and export capacity in place at West Bakr and West Gharib surrounded by exploration licences. We expect positive newsflow from TGA's 18-well exploration programme (targeting 58mmbbl of prospective resources) currently underway at NW Gharib. To further capitalise on existing infrastructure, we expect the group to identify material prospects at exploration licences NW, SW and SE Gharib, where 3D seismic surveys are underway.

Future deals could replicate Egyptian success

Given the new Egyptian government's renewed commitment to repay its foreign company debts, we estimate the balance owed to TGA will be repaid within three years. Hence with TGA funded beyond its capital requirements in Egypt, holding c US\$77m gross in cash and US\$216.3m receivables, we view M&A activity as highly likely. However, we would stress that future deals will likely be geared towards exploiting the group's competence in applying secondary recovery techniques as with Egypt, rather than targeting outsized, high-risk exploration.

Valuation: Backed by producing assets and cash

We value TGA at US\$7.5/share and suggest this value is well supported given producing assets, cash and receivables account for US\$6.8/share of this figure. We value the group's producing Egyptian assets at US\$4.9/share and suggest a further US\$0.7/share as attributable to key exploration licence NW Gharib. We value TGA's receivables balance (due from EGPC) of US\$216.3m at US\$133m (US\$1.8/share) as the NPV of our estimated three-year payment schedule.

Investment summary

Company description: Egypt in focus, Yemen on hold

TGA's Egyptian assets are the focus of group activity with a material 15.1mb/d of current production coming mainly from its Eastern desert licences, West Gharib (8.4mb/d) and West Bakr (6.1mb/d). These producing concessions are surrounded by three highly prospective exploration licences: NW, SW and SE Gharib, awarded in November 2013. With production and facilities in place, surrounded by highly prospective exploration acreage, the area represents a production hub for the company. We expect positive newsflow in 2014 from an 18-well exploration programme currently underway at NW Gharib targeting a material 58mmbbl of prospective resources, in addition to a further exploration programme in 2015.

Given TGA's asset concentration in Egypt, we see the region's improved political stability as critical to the company. We highlight the political backing of the US and EU for the recently elected government, combined with the committed financial support of Saudi Arabia, UAE and Kuwait. In addition, given President Abdel Fattah el-Sisi's near-term priorities of boosting foreign investment, improving infrastructure and creating jobs, we would suggest TGA's objectives are aligned with those of the government; hence the shares represent an opportunity for investors looking to capitalise on Egypt's reparation.

Valuation: Backed by producing assets, cash and receivables

We suggest a valuation for TransGlobe of US\$7.5/share. Within this we value the producing Egyptian licences, West Gharib, West Bakr and East Ghazalat, at US\$4.9/share. We suggest a further US\$0.7/share for the group's highly prospective exploration licence North-West Gharib (proximal to West Bakr and West Gharib), where the group is targeting 58mmbbl of resources via an 18-well exploration programme (currently underway). As a reflection of the improving political landscape in Egypt, and the government's commitment to repay foreign company debt, we value TGA's receivables due from the Egyptian General Petroleum Corporation (EGPC) at close to full value (US\$133m/US\$1.8/share), being the NPV of our estimated payment schedule.

Financials: Funded well beyond current commitments

TGA guides 2014 capital spend of US\$100m, with US\$94m due to Egypt. In addition, the group maintains a commitment to its dividend distribution policy of US\$0.05c per quarter, equating to an annual yield of 5% (at US\$4/share). Clearly the company is well funded beyond its capital and dividend commitments, given its positive cash balance of US\$77m (gross), forecast funds flow for 2014 of US\$122.5m and receivables balance from the EGPC of US\$216.3m.

Sensitivities: EGPC payment schedule critical

TGA carries a receivables balance of US\$216.3m due from the EGPC. We assume US\$157.2m of this debt is paid via three cash payments over three years, and hence we attribute US\$133m (US\$1.8/share) to our company valuation, being the net present value of those payments. As such, repayment of the receivable owed to TGA represents a key sensitivity to our valuation. As discussed in this report, TGA is well funded beyond its capital commitments in Egypt, holding a cash balance of US\$77m (gross) in addition to the receivables balance (US\$216.3m) owed by EGPC. The company maintains a commitment to diversify its asset base away from Egypt. On this basis re-investment risk represents an obvious sensitivity, though we see the chance to replicate the company's success in Egypt as a clear positive, and expect that any deal would play to the group's technical strengths of secondary recovery techniques rather than outsized, high-risk exploration.

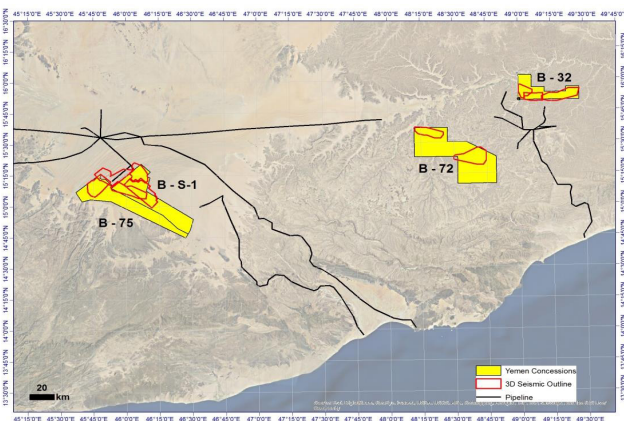
Company description: Egypt in focus, Yemen on hold

TransGlobe Energy is an exploration and production company with producing assets in Egypt and Yemen, with current production from both regions at c 15.3mb/d in October 2014. Within Egypt the group controls three main producing concessions with a combined output of c 15.1mb/d: West Gharib c 8.4mb/d (100% WI), West Bakr c 6.1mb/d (100% WI) and East Ghazalat 0.58mb/d (50% WI). In Yemen the group controls four licences, Block S-1, Block 32, Block 72 and Block 75, with combined production currently limited to c 220b/d due to local disruption.

In Egypt, the group's producing licences, West Gharib, West Bakr and East Ghazalat, will be approaching fully developed status on completion of this year's 30-well development programme. From 2015 onwards, the company will be firmly engaged in the process of arresting production decline, balancing future capital investment with the resultant economic benefits of maintaining output. This will involve the continued application of secondary recovery techniques (water flood/artificial lift/infill drilling) on the back of improved reservoir modelling/sweep efficiency.

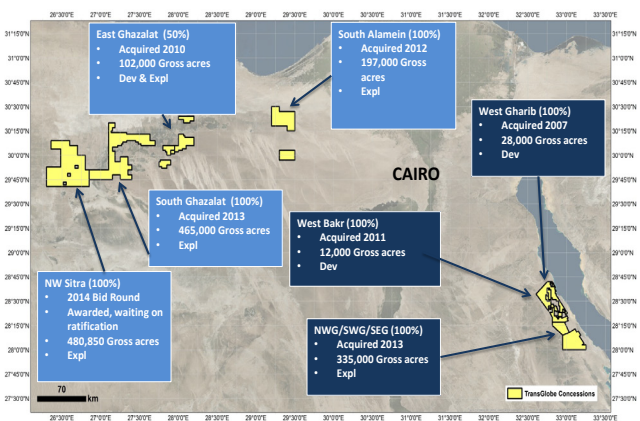
In addition to these Egyptian producing assets, TGA has a fully funded, 18-well exploration programme underway for 2014 at its 100% owned highly prospective North-West Gharib licence. North-West Gharib sits proximal to TransGlobe's main producing licence, West Gharib, with current output of 8.4mb/d. With three wells completed, the 18-well programme has already logged two oil discoveries and targets a total 58.4mmbbl of prospective resources.

Exhibit 1: TransGlobe Yemen licence locations



Source: TransGlobe Energy

Exhibit 2: TransGlobe Egyptian licence locations



Source: TransGlobe Energy

In Yemen, the group continues to combat output interruptions driven by tribal-led labour disputes. Pipeline sabotage is regularly used as a bargaining chip in the region, as experienced by TransGlobe in November 2012, when the An Nagyah field, the main producing field in Yemen, shut down for one year due to pipeline sabotage. As a consequence of this disruption, TransGlobe has reduced capital investment in Yemen to a bare minimum for 2014 (US\$6m). Of the group's two main Yemeni assets, Block S-1 and Block 32, Block S-1 remains shut in due to sabotage, while Block 32 is currently operated at a reduced output of c 220b/d due to labour disputes and sabotage.

Egyptian assets in focus

West Gharib (WG) concession, Q314 production 9.1mb/d

TransGlobe's 9.1mb/d of Q3 2014 oil production from West Gharib is the cumulative output from a number of oilfields, principally Arta and East Arta, Hoshia/Hoshia North and West Hoshia plus Hana and Hana West. Since acquiring an initial stake in the West Gharib licence in 2007, TGA has drilled a combined 150 exploration, appraisal and development wells across the oilfields in addition to

upgrading central processing facilities and export infrastructure. On completion of the nine development wells to be drilled within West Gharib in 2014, the group considers the concession to be essentially fully developed, having delineated the oilfields to the borders of the licence.

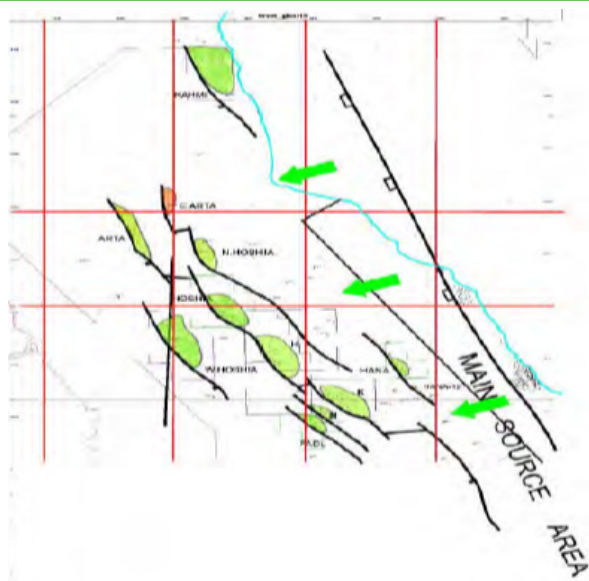
Future operations at WG will be centred on bringing 2P reserves into production, maintenance of production through enhanced reservoir simulation and the application of EOR techniques such as water flood management, well recompletions and artificial lift. Beyond 2014, TGA expects combined output from WG to decline at 15-20% a year, largely a reflection of increased water cut and depleted reservoir pressure.

Geological setting

In terms of geological setting, the West Gharib concession covers a large half-graben (structure bounded by a fault on one side) dipping away to the north-east. This tilted block is assumed to be dissected by a series of diagonal north-west to south-east trending 'normal' faults. This fault system is in turn thought to be intersected by a number of cross faults acting as pathways for hydrocarbons migrating from the west, where the main source rock for West Gharib is thought to be located.

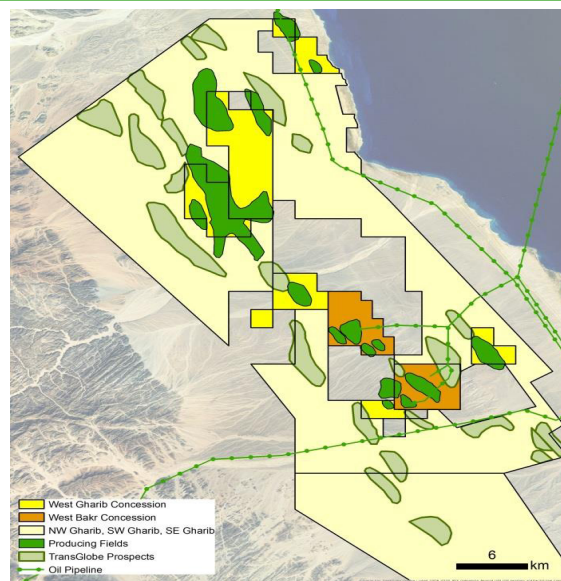
As shown in Exhibit 4, the result of this setting is a number of oil accumulations, fault sealed to the west and dip closed to the east running through the centre of the West Gharib concession.

Exhibit 3: West Gharib, half-graben featuring diagonal faulting with cross faults enabling source migration



Source: TransGlobe Energy

Exhibit 4: Eastern desert concessions – West Gharib, West Bakr, NW Gharib, SE Gharib and SW Gharib



Source: TransGlobe Energy

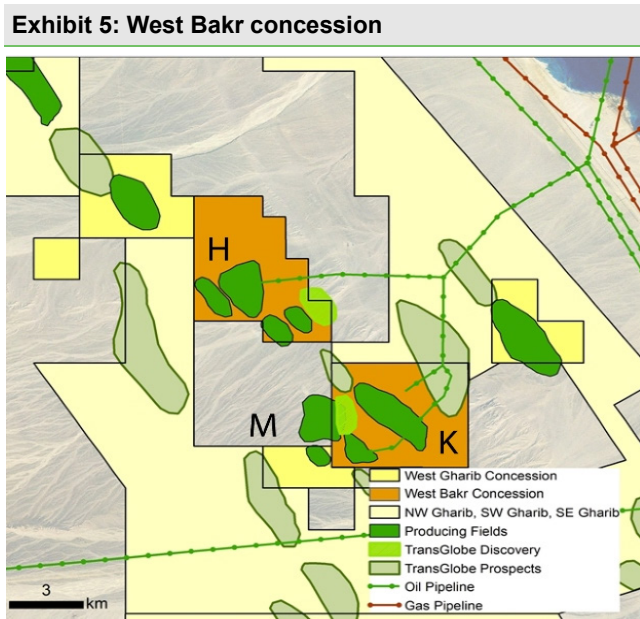
The key producing reservoir at West Gharib is the Lower Miocene Nukhul formation, this formation has two distinct sections, upper and lower, both consisting of sandy limestones. The Upper Nukhul formation extends over 75 feet, of which 55 feet are considered pay. The Upper Nukhul is considered a fairly tight formation with porosities ranging from 5% to 15% and wide ranging permeabilities in the 10 to 1,000 millidarcy (mD) range. On average the formation exhibits reservoir properties of 10% porosity and 300mD permeability. Upper Nukhul wells generally require fracture stimulation; with production drive initially from natural depletion, after the exhaustion of natural drive, the application of water-flood schemes is generally required.

The Lower Nukhul extends for 130 feet, of which 92 feet are considered pay. The horizon consists of better quality sand than the Upper Nukhul, yet porosity and permeability again remain variable within a wide range of 1,000-10,000mD permeability and 18-30% porosity. On average the formation exhibits reservoir properties of 22% (porosity) and 4,000mD (permeability). Similar to the Upper Nukhul, after the depletion of natural drive, application of water-flood is required to maintain

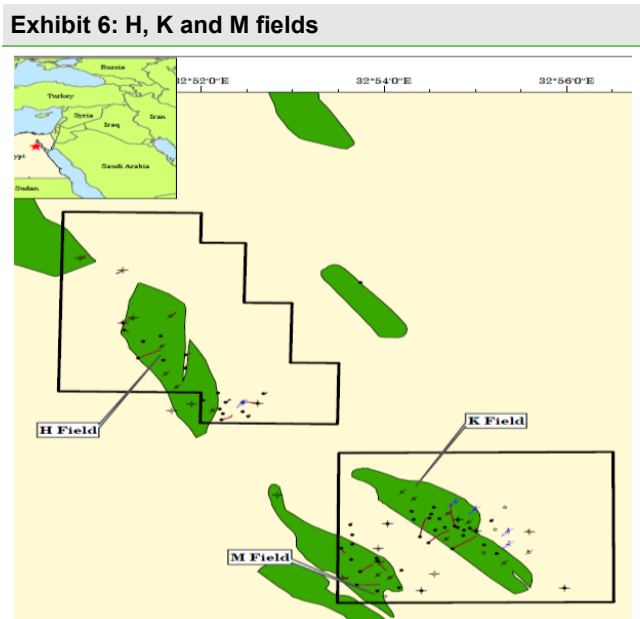
reservoir pressure; this is currently underway with water injection occurring in down-dip portions of the reservoir.

West Bakr (WB) Oct 2014 production increases to 6.1mb/d

Production at West Bakr comes from three main oil fields, H, K and M, with these fields representing the three main development areas within the concession. The 'HKM' fields are currently producing 6,114b/d from 34 wells, with crude quality ranging from 17° to 20° API. As shown in Exhibit 5, West Bakr sits directly to the south of West Gharib, and hence the H, K and M fields are in the same geological setting as the oilfields to the north within that licence, ie a fault closed half-graben dipping to the east with diagonal faults running north-west to south-east.



Source: TransGlobe Energy



Source: TransGlobe Energy

TransGlobe has drilled 33 wells in the concession since acquiring West Bakr in 2011. These have been split across the three fields as follows: 14 (H), 13 (K), 6 (M). As a result of the ongoing development drilling in 2013, TransGlobe recorded a 22% increase in reserves at West Bakr, replacing 268% of 2013 production, largely due to improved reservoir simulation, increased development drilling and production optimisation.

A further 17 wells are to be drilled at West Bakr in 2014 in response to detailed reservoir simulation that highlighted production patterns and incorporate previously bypassed zones. At the Southern part of the H field, detailed reservoir simulation has resulted in the need for six additional development wells, while full field simulation of the K field has suggested the need for a further 11 infill wells and six development wells. Current plans suggest West Bakr would be fully developed on completion of these planned wells.

On the back of this activity, TGA has delivered the target to lift output at West Bakr from c 5.2b/d to over 6mb/d in 2014. The company expects output to remain at this level out to end 2016, whereupon the company expects a decline rate of 15-20% will kick in. Production maintenance and/or improvement beyond this point would be largely dependent on effective management/optimisation of water flood operations applied at the field.

East Ghazalat (EG) concession, Oct 2014 production at 581b/d

TGA farmed in to the East Ghazalat concession in January 2010 and achieved first production in Q212. TGA holds 50% WI as non-operator. The block is located c800km to the west of TGA's main

producing licences West Gharib and West Bakr, as highlighted earlier in Exhibit 3. Production at East Ghazalat currently stands at 581b/d (gross) of 38° API oil, produced via five active wells. The main Safwa/Sabbar pool at East Ghazalat (shown in Exhibit 7) contains seven producing wells and one shut-in due to low inflow and high water-cut. The operator is currently drilling its first horizontal well at the field, which may lead to follow-ups depending on the results. In 2014, the group plans to drill five wells at East Ghazalat, three of which have already been completed. The operator is yet to finalise its development plans for 2015, although TGA expects three vertical wells to be drilled.

To the east of Safwa lies the North Dabaa gas condensate discovery, proven with two wells that tested 20-25mmcf/d of gas with associated condensate at rates of 25-100bbl/mmcf. The operator at East Ghazalat is evaluating tie-in and facilities options for North Dabaa. Production is not expected at North Dabaa prior to 2016.

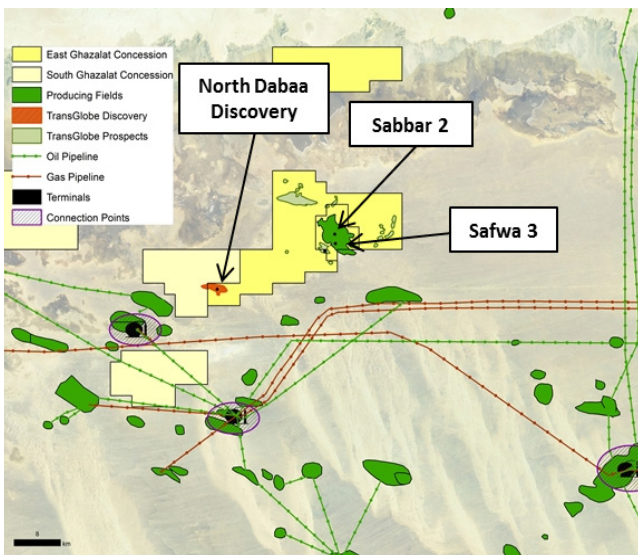
Jurassic gas condensate discovery at East Ghazalat

- August 2013: North Dabaa 1x exploration well, 14,740ft (deep target) Jurassic gas condensate discovery, result 8ft oil pay and 23ft net gas/condensate pay in the Khatatba formation. Test rates at 16.2mmcf/d and 1,620b/d of 56.9° API condensate.
- September 2014: The North Dabaa 2X well, proved successful and cased as a gas condensate producer. 18.7mmcf/d and 542b/d of 57° API condensate.

Geological setting

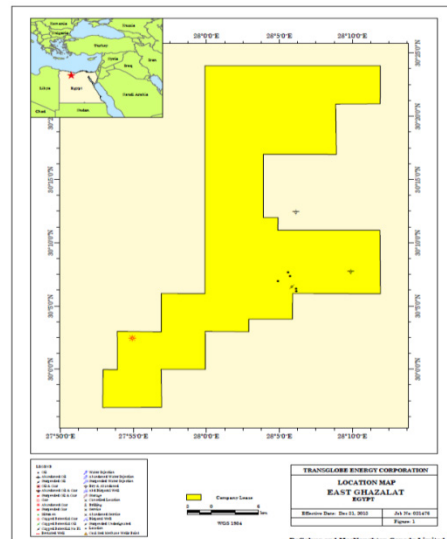
The East Ghazalat Concession is located in the Western Desert area of Egypt, approximately 1,000km from TGA's concessions in the east, West Gharib and West Bakr. The region consists of a series of small rift basins, with the majority of commercial petroleum discoveries occurring in the northern part of the desert. East Ghazalat covers an area of approximately 626km² and sits over the Sharib-Sheiba high on the margin of the Abu Gharadig Basin. This basin developed as a rift and coastal basin as it was pulled apart from the north and south, creating east-west trending faults.

Exhibit 7: East Ghazalat



Source: TransGlobe Energy

Exhibit 8: East Ghazalat



Source: TransGlobe Energy

Although structural traps are most common in the north Western Desert, the trapping mechanisms in East Ghazalat are structural and stratigraphic, with a major east-west trending fault to the south. The main producing horizon is the Cretaceous Bahariya Formation. The Bahariya is thick (at around 1,000ft) throughout the Western Desert. The formation consists of fine grained sandstones interbedded with shales and thin limestone beds. Seals are provided by the carbonate/shale units in the overlying Abu Roash formation.

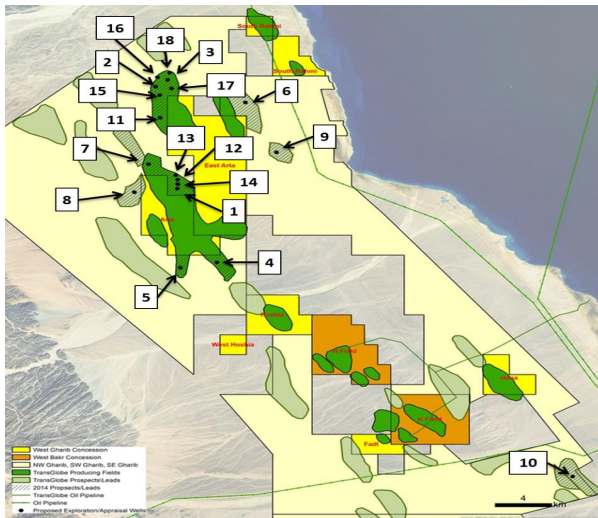
Exploration at NW Gharib, structurally similar to West Gharib

To complement existing production at West Gharib, West Bakr and East Ghazalat, the group was awarded four large Egyptian exploration licences in late 2013, North-West Gharib, South-West Gharib, South-East Gharib and South Ghazalat, all on a 100% working interest basis. Three of the exploration licences acquired would appear to be immediately prospective, being proximal to the group's core producing concession areas around West Gharib and West Bakr, with one outlying exploration licence to the west at South Ghazalat. TGA bid a work commitment of US\$101m to secure these licences, including a signature bonus of US\$40.6m, the acquisition of new 2D and 3D seismic, and an extensive drilling programme approaching 40 wells.

Of these licences, the exploration programme at the 162,000 acre North-West Gharib licence is the most advanced, with 79 targets identified on 3D seismic, and a two-rig drilling campaign now underway targeting 58.4mmbbl of prospective resources between 18 prospects to be completed by end 2014. Exhibit 9 shows the location of the 18 prospects, while Exhibit 10 shows the individual prospect sizes and associated geological chance of success as assessed by TGA.

The remaining three exploration blocks, SW Gharib, SE Gharib and South Ghazalat, have potential targets identified on old 2D seismic data, though an extensive 3D seismic programme is underway. In the Eastern Desert (SW Gharib / SE Gharib / NW Gharib) TGA is running a 1,000km² 3D survey along with a further 300km of 2D data. In the Western Desert (South Ghazalat) TGA plans a 400km² 3D seismic programme, expected to commence in 2015.

Exhibit 9: North-West Gharib exploration block potential – 18 prospects highlighted



Source: TransGlobe Energy

Exhibit 10: North-West Gharib, exploration targets' prospective resource potential

Wells	Description	Prospective Resources* (millions of barrels)	Chance of Success
NWG 1,2,3,4,5,7	Nukhul pools proximal to Arta / East Arta	6.9	40 to 60%
NWG 6	Nukhul structure	11.8	16%
NWG 8	Nukhul structure	1.9	24%
NWG 9	Nukhul structure	1.8	12%
NWG 10	Markha / Rudeis structure	33.0	15%
NWG 11	Nukhul structure	3.0	35%
NWG 12 to 18	Appraisal wells to NWG 1 to 5,7	-	-
Planned 2014 drilling program		58.4	

Source: TransGlobe Energy

NWG exploration, three oil discoveries from ten wells

Exploration drilling at North-West Gharib commenced in June 2014. Results from early wells are encouraging, with successful oil discoveries reported from three of the ten wells drilled to date. With the second rig now mobilised to site, both rigs are 'turning' and expected to be employed on the 18-well programme out to end 2014.

North-West Gharib exploration – early results positive

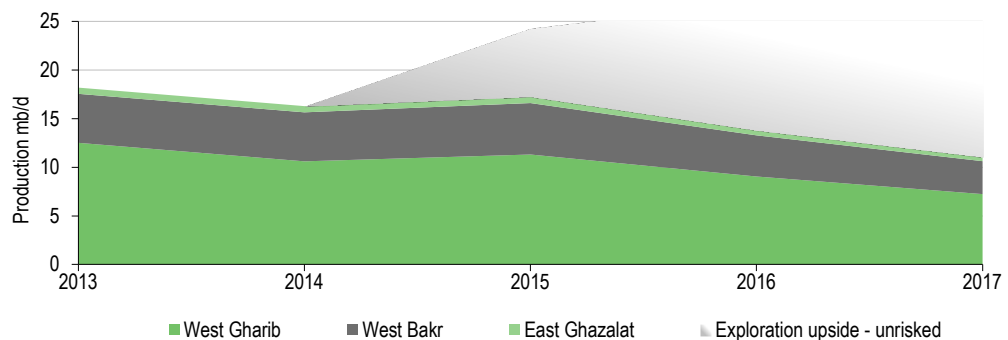
- NWG#1: discovered oil in the lower Nukhul, June 2014, first exploration well spudded on NWG exploration block, 33ft net pay from logs, well cased as a future producer.
- NWG#3: discovered oil in the lower Nukhul, 42ft of pay. Depth 5,360ft based on logs and wireline samples. Similar deliverability to the Arta/East Arta wells, which produced close to 1mb/d (without stimulation).

- NWG#5: discovered oil in the Upper Nukhul formation, 57ft of pay. Well cased as a future producer. Well likely to require stimulation prior to testing.

Development of future NWG discoveries

TGA expects production from future oil discoveries at NW Gharib to come online by end 2014 at the earliest, with a prominent ramp up in production expected for 2015, shown for illustration purposes in Exhibit 11. In the long term, there is potential to integrate development of any discoveries at North-West Gharib into existing facilities at West Gharib and West Bakr, though in the near term the company expects any discoveries will be produced to tank batteries on-site, with crude exported to facilities at West Bakr via truck.

Exhibit 11: Existing production plus exploration potential



Source: Edison Investment Research, TransGlobe

In terms of working up further prospects at NWG, the group is currently undertaking a 512km² 3D seismic programme on the acreage. Among several prominent targets, the survey covers a potential north-west extension to the existing NWG#3 discovery.

The uplift economics of near facilities exploration

Exploration success at licences proximal to the group's main producing blocks at West Gharib and West Bakr, ie North-West Gharib, South East Gharib and South West Gharib, has the potential to increase group economic value beyond the standalone NPV of any discoveries made. The uplift is formed of two parts: developing future discoveries via existing infrastructure requires less capital outlay, hence reducing the minimum accumulation size for economic development, and exporting via existing facilities will allow mature fields within those concessions to keep producing beyond their standalone threshold economic rate.

Yemen: A fully developed 'kleptocracy'

TGA has been active in Yemen since 1996, when the group acquired non-operated working interests in blocks S-1 and 75 in West Yemen and, in the same year, blocks 72 and 32 to the east. The two key concessions either producing or capable of production and shut-in are Blocks 32 and S-1.

Yemen assets, producing and capable of producing concessions

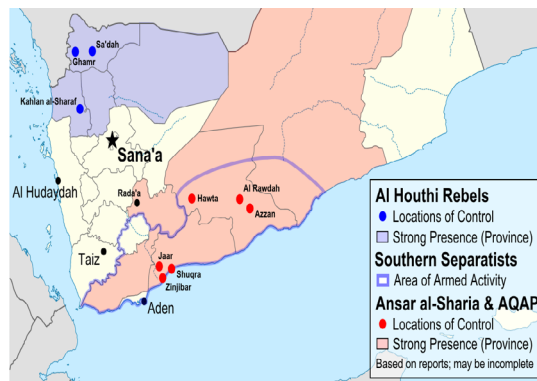
- **Block 32** (13.81% WI/non-operated) is located in the north-central portion of the Sayun-Masila Basin, a Mesozoic-aged rift basin. Consisting of three fields, Tasour, Godah and Salsala, the block features 19 wells active over all three fields. The main producing horizon is the Qishn formation, from which Tasour and Godah fields produce. The Qishn formation is divided into four formations, S1, S2, S3 and S4.

- **Block S-1** (25% WI/non-operated) has 25 operating oil wells plus one gas injection well on TGA's acreage. The An Nagyah field is the main producing field within Block S-1. The field consists of inter-bedded sandstone and shale. Numerous vertical and horizontal wells have been drilled in An Nagyah-31 as part of field development.

After the dust settles; central government fails to regain control

The Yemeni revolution of 2011 is attributed to a widespread venting of anger over high unemployment, economic instability and corruption. Since the revolution, the country has fallen into mayhem, with the central government failing to gain control of the entire country. Hence vast areas of Yemen are now controlled by armed rebel groups (al-Qaeda and the Houthis) rather than the government (Exhibit 12).

Exhibit 12: Two tribes – opposing Yemeni tribes and their respective areas of control



Source: Political Geography Now, www.polgeonow.com

Yemeni operations continue to be severely affected

It is not surprising the operators of TGA's assets have struggled to maintain output; in 2011 TGA suspended drilling and production activities for a full year across the entirety of its Yemen assets. Block S-1 restarted production on 8 November 2013 only to be shut in shortly after as the West Yemen export pipeline was almost immediately sabotaged as a consequence of labour disputes with local tribes. Block S-1 is currently shut-in following sabotage in February 2014, whereas block 32 is operating but has limited materiality to TGA, with output of c 220b/d.

Significant potential awaits 'behind-pipe' should stability re-emerge

Independent assessment of TGA's Yemen reserves by DeGolyer and McNaughton as at 31 December 2013 indicated 2.4mmbbl (proved plus probable) attributable to TGA's portfolio. At the time this represented a material 10% of the total 2P (net) estimate for the group of 22.5mmbbl. As evidence of the opportunity lying beneath the surface disruption in Yemen, prior to shut-in, Block S-1 had been producing at 5,000b/d (1,250b/d net to TGA). TGA estimates uninterrupted capacity at the field could be as high as 8,000b/d (2,000b/d net). In contrast to Block S-1, Block 32 has operated with relatively few disruptions and currently represents TGA's sole Yemeni output at 220b/d (net to TGA).

2015 production to bounce-back on PCP replacement

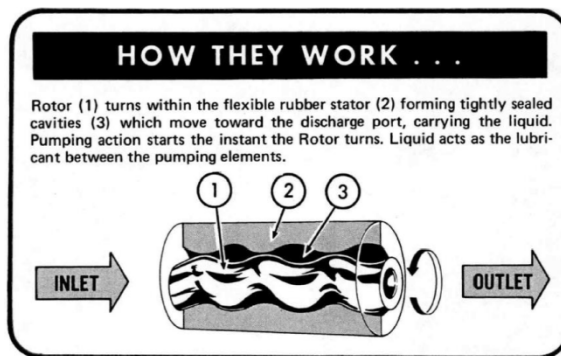
Prior to 2013 TGA had employed downhole pumps to improve crude production across its Egyptian fields with success, with each pump exhibiting an operational field life of one to two years. Beginning in 2013, TGA installed around 40 progressive capacity pumps (PCPs) supplied by a new supplier. The newly installed pumps have proved to be defective, failing to operate on a consistent basis and in some cases suffering terminal failure in as little as two to three weeks. The resultant negative impact to production was material and ongoing. TGA estimates current production is reduced by c 1mb/d due to the widespread failure of the PCPs.

The company estimates all 40 replacement pumps will be installed and operational by end 2014, with the group's Egyptian output returning to full capacity, ie recovering the 1mb/d negative impact, as a result. We would expect results from early testing of the newly installed pumps around year-end, when hopefully the problems will have been rectified. In our modelling of field production at West Bakr and West Gharib, we assume PCP pump replacement is successful by early 2015 with production bouncing back by the suggested 1mb/d.

Progressive cavity pumps '101'

Progressive cavity pumps feature sealed cavities and are able to pump at extremely low rates, even to high pressures with purely positive displacement. They are also known as eccentric screw pumps due to the motion of the rotor within the rubber sleeve, known as the stator. As shown in Exhibit 13 the rotors (1) are located centrally within the stators (2). The stators are metal tubes with internally moulded cavities of synthetic or natural rubber, known as elastomers. In operation, the rotor seals tightly against the flexible rubber stator as it rotates, forming tightly sealed cavities, which move toward the discharge port, carrying the liquid. The effect of the design is that the fluid is moved at a very predictable and steady rate, demonstrating positive suction, and the pumping action starts the instant the rotor turns. The oil being pumped acts as the lubricant between the main pumping elements, aiding smooth and reliable operation of the pump.

Exhibit 13: Anatomy of a progressive state pump – rotor (1), stator (2), cavity/fluid (3)



Source: Continental Pump Company

Driving the failure of TGA's PCPs was the deformation of the 'elastomer' contained within the pump itself, resulting in terminal failure. In order to operate efficiently, each elastomer has to be engineered in conjunction with the chemical constitution of the crude oil to be produced (which can change over time); this is particularly relevant for TGA's assets, as for example the Hoshia field contains crude of 16° API quality, whereas East Ghazalat concession produces a materially higher grade at 38° API. In addition to chemical parity, the elastomer has to be correctly bonded to the outer wall of the stator; this ensures the elastomer expands only within design tolerance and continues to operate successfully.

It is thought one or a combination of these issues drove the wholesale failure of TGA's PCP pumps. In admission of this design failure, the original contractor has supplied 40 PCP pumps free of charge, with all being designed on a bespoke basis for the crude to be produced. The ultimate reliability of these pumps will only be determined over time.

Egypt: Well-funded political transition underway

We expect Egypt to continue building on its emerging political stability. In support of this theory, we highlight the political backing of the US and EU combined with the financial support of Saudi Arabia, Kuwait and the UAE. In addition, given President Abdel Fattah el-Sisi's near-term priorities of boosting foreign investment, improving infrastructure and creating jobs, we would suggest the

region, and hence TransGlobe shares, represents an opportunity for equity investors looking to capitalise on the reparation of Egypt.

Egyptian political transition

In February 2011, the fourth Egyptian president, Hosni Mubarak (1981-2011), was ousted as part of the Arab Spring uprising across North Africa. Following the uprising, a leading member of the Muslim Brotherhood, Mohamed Morsi, was elected president on 24 June 2012. Morsi's subsequent tenure proved unsettling for Egypt due to the Muslim Brotherhood's planned imposition of strict Islamic controls and practices on the country. On 22 November 2012, Morsi issued a declaration immunising his decrees from challenge; this was to prove his undoing. The autocratic move led to street protests and violent action throughout Egypt, resulting in Morsi's ousting by military coup on 3 July 2013.

In the subsequent parliamentary election, former head of the army Abdel Fattah el-Sisi was successful and sworn in as president on 8 June 2014. From a financial perspective, Sisi's election has secured the maximum economic benefit from supportive Arab states Kuwait, Saudi Arabia and the UAE. These three countries, naturally opposed to the Muslim Brotherhood, have pledged a combined US\$13.9bn in aid to support Egypt. A further assistance package of US\$20bn is reportedly planned by Saudi Arabia and the UAE. From a self-help perspective, the recovery in tourism revenue is a key element to watch in the country's rehabilitation, as revenue fell by 41% in 2013 to US\$5.9bn from US\$10bn in 2010. We expect continued disbursement of Gulf aid and a reduction in fuel subsidies to compensate for the slowly recovering tourism industry.

Management

Mr Ross Clarkson (CEO) was appointed in 1996. Prior to joining TransGlobe, Mr Clarkson was a senior geological advisor with Petro-Canada and resident manager of Petro-Canada (Yemen). He has over 30 years of domestic and international oil and gas exploration experience.

Mr Lloyd W Herrick (COO) was appointed in 1999. Prior to joining TransGlobe, Mr Herrick was CEO of Moibus Resources (acquired by TransGlobe in 1999). He is a professional engineer with over 30 years of oil and gas experience, having worked in a variety of technical and management positions at Ranger Oil Limited, Rupertsland Resources Ltd. and Hudson Bay Oil & Gas Ltd.

Mr Randall C Neely (CFO) was appointed in 2012. Mr Neely holds both chartered accountant and CFA designations in addition to 22 years' experience in executive financial positions, most recently CFO of Zodiac Exploration. Prior to this, he served as CFO of Pearl (Blackpearl) Exploration & Production and as CFO of Trident Exploration.

Mr Brett Norris (VP, Exploration) was appointed in 2012. Mr Norris is a professional geologist with over 24 years of industry experience and is a former director of the Canadian Society of Petroleum Geologists. He holds membership of the Canadian Society of Petroleum Geologists, the American Association of Petroleum Geologists and the Society of Petroleum Engineers.

Mr Albert E. Gress (VP, Business Development) was appointed in March 2011. Country Manager for TransGlobe Egypt since 2007. Prior to joining TransGlobe, Mr. Gress was Egypt Country Manager for CEPSA and Devon Energy. Mr. Gress has over 18 years' experience in Egypt, in addition to 10 years' experience as a US Certified Public Accountant with PwC.

Robert Pankiw (VP, Engineering) was appointed April 2012. Engineering Manager with TransGlobe since 2005. Mr. Pankiw is a professional engineer with over 25 years of diverse industry experience including reservoir, exploitation, operations and corporate planning. Mr Pankiw has held technical roles with Rio Alto Exploration, Petrovera Resources, and Husky Oil.

Sensitivities

TransGlobe is exposed to the normal geological and technical risks inherent in oil and gas exploration. Apart from these, we highlight the following as major risks:

- **Consolidated asset base risk:** 99% of TGA's current production comes from Egypt. This represents a significant consolidation of asset risk within the company.
- **Counterparty risk:** TGA carries a receivables balance of US\$182.7m due from the Egyptian General Petroleum Corporation (EGPC). We highlight the Egyptian government's commitment to pay down the debt owed to foreign oil companies.
- **Re-investment risk:** TGA holds gross cash of US\$77m and a receivables balance of US\$216.3m. The company continues to look to diversify; we expect future deals will play to the group's technical strengths of secondary recovery technique application.
- **Operational risk:** The failure of PCP pumps across TGA's Egyptian assets has reduced production by c 1mb/d. We assume the replacement operation is successful, with production returning to normal by early 2015.

Valuation

We value TGA using an asset-by-asset NAV derived from detailed DCF modelling. Our US\$7.5/share valuation for the company includes an assessment of the main producing concessions, West Gharib, West Bakr and East Ghazalat, in addition to the exploration concession, North-West Gharib, where an 18-well exploration programme is underway. We apply a risk factor of 15% to the resultant North-West Gharib concession NPV to take account of geological uncertainties associated with exploration.

Our assumptions in arriving at this valuation include a 12% discount rate, in line with our assessment of country risk in Egypt. For commodity pricing, we assume US\$80/bbl long-term for Brent (after a fade from current levels). Egyptian PSC terms in general allow for c30% of oil produced to be used for cost recovery, with excess cost recovery oil being split between the contractor and the government in varying ratios of up to 30% in the contractor's favour. Beyond this, profit oil is then generally split around 30:70 in the government's favour, with a lift beyond this 70% being dependent on absolute production levels.

Exhibit 14: TransGlobe valuation summary

Asset	Country	Diluted WI %	CoS %	Recoverable reserves		NPV/boe \$/boe	Net risked value \$m	Value/share	
				Gross mmboe	Net mmboe			Risked \$/share	Unrisked \$/share
				Net cash				100%	100%
SG&A		100%	100%				(55)	(0.8)	(0.8)
Receivables NPV							133	1.8	1.8
Production									
West Gharib	Egypt	100%	100%	19.7	19.7	15.1	296	4.1	4.1
West Bakr	Egypt	100%	100%	8.2	8.2	5.9	48	0.7	0.7
East Ghazalat	Egypt	50%	100%	1.0	0.5	8.4	4	0.1	0.1
Producing/shut-in									
*Yemen Block 32 / S-1	Yemen	14% / 25%	50%	N/A	N/A	N/A	27	0.4	0.7
Core NAV							488	6.8	7.1
Exploration									
NWG #10	Egypt	100%	15%	32.6	32.6	5.2	25	0.4	2.3
NWG #6	Egypt	100%	15%	11.8	11.8	4.2	8	0.1	0.7
NWG #1-5, 8,9,11	Egypt	100%	25%	13.6	13.6	5.1	15	0.2	0.8
Exploration NAV							48	0.7	2.3
RENAV							536	7.5	9.5

Source: Edison Investment Research. Note: *In valuing Yemen we adopt the company's carrying value for this asset (US\$53.3m) and then risk this value by 50%.

Egyptian receivables of US\$216.3m; we assume NPV US\$133m

TGA carries a last-reported receivables balance of US\$216.3m (as at 30 June 2014) due from the Egyptian General Petroleum Corporation (EGPC). In valuing this debt to the company we have assumed that US\$157.2m of the balance is recovered by end 2016 in the following payment schedule: 2014 US\$50m, 2015 US\$87.5m, 2016 US\$19.7m (total US\$157.2m). The NPV of these cash flows suggests a value of US\$133m attributable to TGA.

To support of our assumption that the debt is recovered, we highlight the new Egyptian government's renewed commitment to pay down the debt owed to foreign oil companies by end 2017. On 2 October 2014 the government paid off US\$1bn, which followed a payment of US\$1.5bn from December 2013. Further progress on payments is expected as Saudi Arabia, Kuwait and the UAE have pledged US\$12bn in support for Egypt in the form of loans, grants and shipments of oil and refined products.

Yemen, just carrying value...for now

In valuing TGA's Yemen assets, we assume a risked book value for Block 32 and Block S-1. As discussed in this report, production at both licences remains shut-in or reduced due to local tribal disputes, with only Block-32 in production at a reduced output of c 220b/d. On this basis we see valuing the Yemen assets on the basis of field cash flow as inappropriate. But we highlight this represents option value only; a return to stability in Yemen would warrant a much higher valuation of these assets as a going concern.

Valuation sensitivity to oil prices

As highlighted in Exhibit 15, our valuation of TGA demonstrates a reduced sensitivity to oil prices due to the profit sharing aspect of the petroleum sharing contracts governing its Egyptian operations. As PSCs were designed for host governments to retain leverage to oil prices as they moved to the upside, a reduction in crude prices often results in less impact to the contractor than expected. As shown, a reduction in our crude assumption from US\$80/bbl to US\$60/bbl results in a moderate reduction in our NAV from US\$7.5 to US\$7.0/share.

Exhibit 15: Sensitivity of NAV (US\$/share) to oil price and discount rate (%)

	Oil price				
	US\$60/bbl	US\$70/bbl	US\$80/bbl	US\$90/bbl	US\$100/bbl
8%	7.6	7.9	8.2	8.4	8.7
10%	7.3	7.6	7.8	8.0	8.3
12%	7.0	7.2	7.5	7.7	7.9
14%	6.8	7.0	7.2	7.3	7.5
16%	6.5	6.7	6.9	7.1	7.2

Source: Edison Investment Research

Financials, capex and dividend well covered

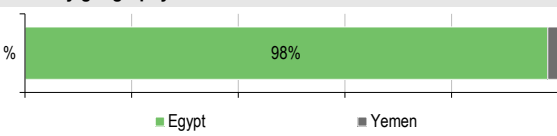
TGA guides 2014 capital spend of US\$100m, of which US\$94m is due to be spent in Egypt. In addition, the group maintains a commitment to its dividend distribution policy of 5c per quarter, equating to an annual yield of 5% (at US\$4/share). We view the company as well funded to make these capital and dividend commitments, given its positive cash balance of US\$77m gross, and forecast funds flow for 2014 of US\$122.5m.

In addition to cash at hand, TGA holds a receivables balance of US\$216.3m, owed by the EGPC. While this is not cash in hand, we estimate this cash will be repaid within three years; hence we view it as an additional source of finance for the company, particularly as the group plans to grow activities in Egypt, where these funds could be used to offset future PSC obligations to the Egyptian government.

Exhibit 16: Financial summary

	\$'000s	2012	2013	2014	2015	2016
Dec		IFRS	IFRS	IFRS	IFRS	IFRS
PROFIT & LOSS						
Revenue		317,993	315,678	302,977	258,332	209,320
Operating Expenses		(52,367)	(65,791)	(74,145)	(67,263)	(52,421)
Gross Profit		265,626	249,887	228,832	191,070	156,898
EBITDA		236,656	202,407	198,332	161,420	132,148
Operating Profit (before amort. and except.)		189,710	152,993	150,044	110,240	92,612
Intangible Amortisation		0	0	0	0	0
Exceptionals		0	0	0	0	0
Other		0	0	0	0	0
Operating Profit		189,710	152,993	150,044	110,240	92,612
Net Interest		(13,901)	(9,130)	(7,684)	(7,684)	(7,705)
Profit Before Tax (norm)		175,809	143,863	142,360	102,556	84,907
Profit Before Tax (FRS 3)		175,809	143,863	142,360	102,556	84,907
Tax		(88,075)	(85,351)	(69,149)	(55,412)	(42,003)
Profit After Tax (norm)		87,734	58,512	73,211	47,143	42,904
Profit After Tax (FRS 3)		87,734	58,512	73,211	47,143	42,904
Average Number of Shares Outstanding (m)		73.4	74.0	75.1	75.1	75.1
EPS - normalised (c)		119.6	79.1	97.5	62.8	57.2
EPS - normalised and fully diluted (c)		116.2	65.0	97.5	62.8	57.2
EPS - (IFRS) (c)		119.6	79.1	97.5	62.8	57.2
Dividend per share (c)		0	0	20	20	20
Gross Margin (%)		83.5	79.2	75.5	74.0	75.0
EBITDA Margin (%)		74.4	64.1	65.5	62.5	63.1
Operating Margin (before GW and except.) (%)		59.7	48.5	49.5	42.7	44.2
BALANCE SHEET						
Fixed Assets		342,621	395,439	428,772	403,429	383,271
Intangible Assets		48,414	89,991	102,970	108,137	112,013
Petroleum Properties		280,895	288,756	309,307	278,797	254,763
Other		13,312	16,692	16,495	16,495	16,495
Current Assets		310,804	280,361	298,939	356,411	412,010
Stocks		0	1,525	864	864	864
Debtors		221,017	148,284	132,724	82,724	30,000
Cash		82,974	122,092	155,682	263,154	371,477
Other		6,813	8,460	9,669	9,669	9,669
Current Liabilities		(48,587)	(38,392)	(35,734)	(35,734)	(35,734)
Creditors		(48,587)	(38,392)	(35,734)	(35,734)	(35,734)
Short term borrowings		0	0	0	0	0
Long Term Liabilities		(168,978)	(137,218)	(131,905)	(131,905)	(131,905)
Long term borrowings		(115,627)	(87,539)	(83,229)	(83,229)	(83,229)
Other long term liabilities		(53,351)	(49,679)	(48,676)	(48,676)	(48,676)
Net Assets		435,860	500,190	560,072	592,202	627,642
CASH FLOW						
Operating Cash Flow		93,992	199,508	139,539	148,324	142,715
Net Interest		0	0	0	0	0
Tax		0	0	0	0	0
PPE additions		(45,386)	(66,703)	(66,857)	(20,670)	(15,503)
Exploration additions		(57,390)	(65,252)	(15,834)	(5,168)	(3,876)
Financing		88,785	(8,758)	(3,532)	0	0
Dividends		639	(1,227)	(19,317)	(15,014)	(15,014)
Net Cash Flow		80,640	57,568	33,999	107,472	108,323
Opening net debt/(cash)		113,293	32,653	(34,553)	(72,453)	(179,925)
HP finance leases initiated		0	0	0	0	0
Other		0	9,638	3,901	0	0
Closing net debt/(cash)		32,653	(34,553)	(72,453)	(179,925)	(288,248)

Source: Company accounts, Edison Investment Research

Contact details		Revenue by geography	
2300, 250 – 5th Street SW Calgary, Alberta, Canada, T2P 0R4 +1 403 444 4787 www.trans-globe.com			
CAGR metrics	Profitability metrics	Balance sheet metrics	Sensitivities evaluation
EPS 2012-16e	N/A ROCE 15e	11.3% Gearing 15e	N/A Litigation/regulatory
EPS 2014-16e	N/A Avg ROCE 2012-16e	18.7% Interest cover 15e	N/A Pensions
EBITDA 2012-14e	N/A ROE 15e	8.0% CA/CL 15e	10.0x Currency
EBITDA 2014-16e	N/A Gross margin 15e	74.0% Stock days 15e	1.2 Stock overhang
Sales 2012-16e	N/A Operating margin 15e	42.7% Debtor days 15e	116.9 Interest rates
Sales 2014-16e	N/A Gr mgn/Op mgn 15e	1.7x Creditor days 15e	50.5 Oil/commodity prices
Management team			
CEO: Mr Ross Clarkson		COO: Mr Lloyd W Herrick	
Appointed 1996. Prior to joining TransGlobe, Mr Clarkson was a senior geological advisor with Petro-Canada and resident manager of Petro-Canada (Yemen). Mr Clarkson has over 30 years of domestic and international oil and gas exploration experience. His international familiarity extends to numerous countries on all continents.		Appointed 1999. Prior to joining TransGlobe, Mr Herrick was CEO of Moibus Resources (acquired by TransGlobe in 1999). Mr Herrick is a professional engineer with over 30 years of oil and gas experience, having worked in a variety of technical and management positions at Ranger Oil Limited, Rupertsland Resources Ltd. and Hudson's Bay Oil & Gas Ltd.	
CFO: Mr Randall C Neely		VP, Exploration: Mr Brett Norris	
Appointed in 2012. Mr Neely holds both chartered accountant and CFA designations in addition to 19 years' experience in executive financial positions, most recently CFO of Zodiac Exploration. Prior to that, he served as CFO of Pearl (Blackpearl) Exploration & Production as well as CFO of Trident Exploration.		Appointed in 2012. Mr. Norris is a professional geologist with over 24 years of industry experience and is a former Director of the Canadian Society of Petroleum Geologists. He holds membership of the Canadian Society of Petroleum Geologists, the American Association of Petroleum Geologists and the Society of Petroleum Engineers	
Principal shareholders			(%)
Montrusco Bolton Investments			13.14%
FMR LLC			9.81%
Fiera Capital Corporation			7.88%
CN Canadian Master Trust			4.47%
Invesco Ltd			3.56%
Blackrock			3.21%
Ross Clarkson (CEO)			2.97%
Canadian Pension Plan			1.80%
GLG Partners			1.37%
Connor Clark & Lunn			1.36%
Companies named in this report			
N/A			

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