

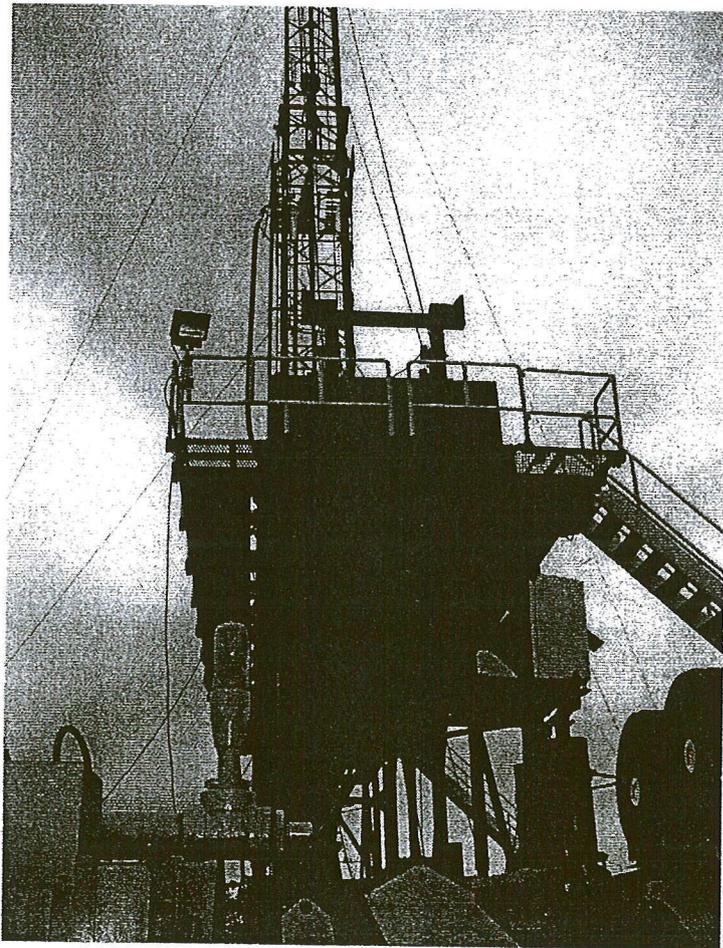
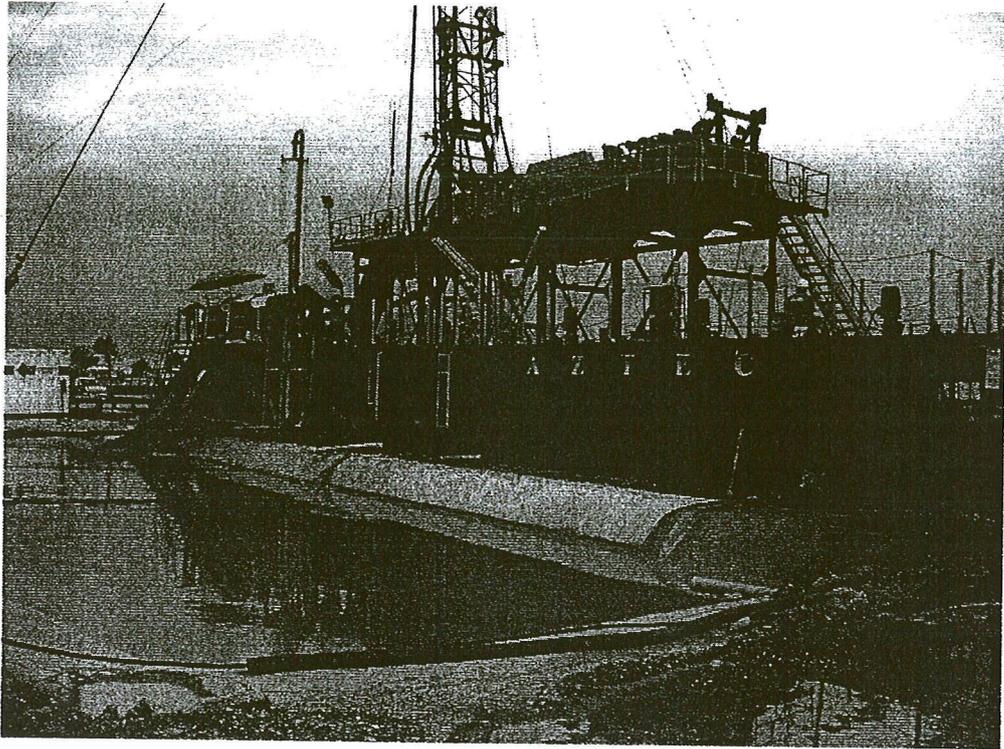
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ข้อมูลน้ำโคลนและปัจจัยจากสนาม

DAILY MUD REPORT

SUT Central East 1A

DAILY MUD REPORT							
Rig Name	IAZTEC 7	Date	7-May-07	Field Engineer	J. Lee/Nacong U/Lugman	Depth (M)	576.1
Well Name & No.		Report No.	7	Solids Control		MD/TVD	576.1
Field		Formation		Head OTR	Bangkok	Average R.O.P. M/hr	10
Block		Warehouse	Saszhb	Drilling Rep.	Mr. John Johnson	Hole Section	6.18
Onshore Area	Northern, Thailand			Rig manager	Mr. John Robinson	RBHT (T)	
Drig ahead		CASING		Size (in)	Depth (M)	MUD VOLUME (bbl)	
Present Activity	Drilling ahead	Conductor	9 5/8	67.5	Hole Volume	76	
BH Size (inch)	6 1/8	Surface casing	7	563.2	Active pits	293	
Drill Pipe Size (inch)	3 1/2	Production	4 1/2		Reserve pits		
Drill Collar (inch)	4 1/2				Total Circulating Volume	369	
HWDP							
CIRCULATION DATA				ANNULAR VELOCITY (Feet / Minute)			
Pump Size (inch)	6.0	Opposite DP in OH			323	Feet / minute	
Pump Make	2 x Triplexed pump	Opposite DC in OH			472	Feet / minute	
Bbls/Stroke (95% eff.)	0.080	Opposite DP in Cased Hole			277	Feet / minute	
Stroke/Minute	99	Circulating Pressure			286	psi	
Bbls/Minute	8	Bottoms Up			8.18	minutes	
GPM	333	Surface to surface			46.55	minutes	
MUD TYPE:				POTASSIUM SULPHATE POLYMER			
Sample From:		Spec	Active pits				
Time Sample Taken	24 hrs		8:30 PM	4:30 AM			
Temperature Sample Taken	deg F		95	96			
Depth	metre		566.20	566			
Weight (ppg)	ppg	8.8-8.8	9.6	8.5			
Mud Gradient	psi/ft		0.469	0.499			
Funnel Viscosity	sec/100	40-50	45	48			
Plastic Viscosity	cps	ALAP	11	10			
Yield Point	lb/100 sq.ft	15 - 20	13	3			
Gel Strength (10 sec / 10 min)	lb/100 sq.ft		6 / 14	3/6			
API Filtrate (100 psi)	ml	<10	5.2	5.4			
API Filtrate Thickness	32nd in.		1	1			
pH		8.5 - 9.5	8.5	9.0			
Ph	ml		1.0	1.00			
PVM	ml/ml		0.05 / 3.00	0.05 / 2.32			
Cl	mg/L		750	750			
Hardness	mg/L		910	890			
Water Content	% by Volume						
Solid Content	% by Volume						
Sand content	% by Volume						
K2SO4	% by Volume	5					
Solid Analysis							
High Gravity Solids	% by Volume						
High Gravity Solids	ppb						
Low Gravity Solids	% by Volume	<5					
Low Gravity Solids	ppb						
MBT	mc/ml mud						
CEC (API Equivalent)	ppb Bentonite						
SOLIDS CONTROL EQUIPMENT INFORMATION				VG METER READINGS at 120 deg F			
Size		Hours Per Hour		Time			
Centrifuge 1	None			600 RPM	35	23	
Shaker #1	20 40 mesh	4		300 RPM	24	13	
Shaker #2	20 40 mesh	4		200 RPM	20	10	
Desander	N/A			100 RPM	15	16	
Desilter	N/A			6 RPM	8	8	
				3 RPM	7	6	
BIT DATA				Cost			
Make	Varec CHC MSC			Daily Mud Chemicals Cost			
Type	IADC 117			Previous Mud Chemicals Cost			
Jets	16 x 3			Cumulative Mud Chemicals Cost			
Volume Addition		Volume Losses					
Mud	bbl	Shakers	bbl				
Water	69.00 bbl	Desander/Desilter	bbl				
Base Oil	bbl	Down Hole	bbl				
Chemicals	5.00 bbl	Dumped	bbl				
Barite	bbl	Tripping	bbl				
Total	85.00 bbl	Total	0 bbl				
Operation Comment							
NU BOP. Drill out shoe, cut new formation							
Drilling Fluids Comment							
Treat mud for cement contamination, pH control and Ca2+ ions from cement.							





SUT Central Plain 1A

Well Name	Original Hole	Start Depth (m)	Company	Representatives	Casing	DATE:
G1W20	Phase	20.00	Saril R.	Company Man	00 (in)	31/Mar/2007
			Rongthip.		9.50	RPT #: 4
					853.00	
					Next: 7' cas @ 2700m	Weight Depth (m)
						2,891.00

Penetration	End (m)	Start (m)	Time (hrs)	ROP (m/hr)	Cum Depth (m)	Bit Rate (m/hr)	Flow (L/min)	SPP (Data)	On Bit (h:m)
2R	2,198.23	2,681.00	462.77	10.00	49.3	1,733.00	32.50	90	2,192
									2,285.0

Drilling Assembly	Bit Run	Start Time	End Time	Code	Duration (hrs)
2R		00:00	00:00	F1	8.00

Time Log	Start Time	End Time	Code	Duration (hrs)
	00:00	00:00	F1	8.00

Hughes HCR05, 8 1/2" Turbo back, 7" SuperDrill Lobe 7/8 - 8.0 kg, 7 1/4" Sub, 6 1/2" Pical Sub, 2 x 6 1/2" NM Pony, 6 1/2" NM HOC, 10 x 5" HWDP, 6 1/2" Jar, 4 x 5" HWDP (total 157.51 m)

Continues drill 8-3/4" hole from 2188 to TD (2891 mMD/2028.6 mVD), BHCT 91.4 degC @ 2671.1 mMD/2012.9 mVD.

Drilling parameters:  
 Sliding: WOB= 10 klbs, 2200 lpm  
 Rotate: WOB= 8 - 15 klbs, 2200 lpm, RPM= 90, Torque= 7 - 15 kft-lbs.  
 Rate: 301.8 m/4.6 hrs - Avg. ROP 65.2 m/hr.  
 Slide: 51 m/1.04 hrs - Avg. ROP 49 m/hr.  
 Loss peak: 2.8% @ 2243.5 m, 1.7% @ 2303.5m, 1.6% @ 2334.5m, 1.6% @ 2342m, 2.64% @ 2391.5m, 1.68% @ 2382.5m. Background gas: 0.9 %

Including directional survey.  
 Circulate hole clean (90 RPM, 150 spm), no loss.  
 Pulverize stands from 2801 to 2573 m: Tight spot at 2807 m - wipe to clear. Flow check - hole static.  
 Pump slug 5 m3 (1:4:5G).  
 POOH 8-3/4" BHA from 2571 to 938 m (inside 9-5/8" csg shoe). Tight spot @ 2099 and 1653 m - wipe to clear. Flow check - hole static.  
 Continue POOH 6 3/4" BHA from 938 to 158 m.  
 Handle 8-3/4" BHA - Rack back motor and bit (mud loss during POOH = 1.6 m3, loss rate = 0.23 m3/hr).  
 Rig floor clear - Hold pre-job safety meeting: RJU schumbarger.  
 20:15 MUJ PEX logging tool - surface test and bed radioactive source.  
 20:30 RH PEX logging tool (9-5/8" casing shoe).  
 21:00 Log down from 8-5/8" casing shoe to TD (2892.2 mMD wireline depth).  
 22:15 Log up from TD to 9-5/8" casing shoe.

Operation Summary:	Continue drill 8-3/4" section to TD. Circulate hole clean. POOH 8-3/4" BHA. Perform PEX logging.
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Personnel	Company	GR	Day Total	Cum To Date	Mud Total	Mud Cum To Date
PTTEP		5	61,261.00	6,459.98		53,419.52
GWDC		3				
BJ services		3				
Halliburton		5				
I-Log		4				
Mi-Sveco		3				
PCS		3				
Pro Waste		13				
Secunor		8				
Schlumberger		6				

Standby Boat	Vessel Name	Arrival Date	Depart

Variable Load	Max/Min/Used (10000)

Washer Conditions	Washer Period (Sec)	Washer Direction	Washer Speed (Rpm)

Wind Direction	Wind Speed (m/s)	Current Speed (m/s)	Current Direction (T)

Summary/Remarks	
Continue drill 8-3/4" section to TD. Circulate hole clean. POOH 8-3/4" BHA. Perform PEX logging.	

Mud	Mud Type	Units	On Loc	Used
	Versaclean CBM	sc	23.0	7.0
	Mud Weight (ppg)	m3	45.56	7.0
	Initial (m)	sc	37.0	9.0
	Added (m)	sc	130.0	20.0
	Form.Gain (m)	sc		
	Surf.Loss (m)	sc		
	YP (lb/1000?)			
	FT (m/100?)			
	PH			
	Ca++ (mg/L)			
	Mg++ (mg/L)			
	K+ (mg/L)			
	NaCl (mg/L)			
	KCl (mg/L)			
	Solids (Co.)			
	CEC (mg/m)			
	PHFT (m)			
	Water (%)			
	Oil (%)			
	ESV			
	UGS (%)			
	Line (mg/L)			
	CF (mg/L)			

Main Stock	Supply Item	Unit	Receive	Used	Stock
	Diesel	m3	7.8	7.8	20.6





SUT Central Plain IA

DATE: 29/Mar/2007  
RPT #: 2

Company: \_\_\_\_\_  
Representatives: \_\_\_\_\_  
Casing: \_\_\_\_\_  
Next: 7' csg @ 2700m

Penetration

Bit

Parameters

Mud

Drilling Assembly

Survey Data

Time Log	Start Time	End Time	Comments	Code	Dr (ft)
13:15	14:15	14:15	Install wellhead side outlet valves, NU BOP and bit nipple.	C3	1.00
14:15	14:45	14:45	Change JDS-04 and delivery.	C3	0.50
14:45	15:15	15:15	MU & RH CTT with 5' DP stand. Pressure test BOP connection against pipe ram to 500/3000 psi - ok.	C3	0.50
15:15	15:30	15:30	LD cup type tester.	C3	0.25
15:30	16:45	16:45	Install wellflushing.	F2C	0.25
16:45	17:00	17:00	LO 7' motor, PU new motor, MU 8-3/4" BHA - change motor sleeve to 8-3/4".	F2C	0.25
17:00	17:00	17:00	Surface test MWD and motor - ok.	F2B	0.25
17:00	18:15	18:15	RIH 8-3/4" BHA from 18 to 500 m.	F2B	0.25
18:15	18:30	18:30	Shallow test MWD - ok.	F2B	0.25
18:30	18:45	18:45	Continue RIH 8-3/4" BHA from 500 to 914 m.	C4	0.25
18:45	19:00	19:00	MWD failure - attempt to get survey by pumping different rate - neg.	FNA	0.75
19:00	19:45	19:45	POOH 8-3/4" BHA from 914 to 940 m.	FNA	0.75
19:45	20:00	20:00	POOH 8-3/4" BHA. Change out new probe and pulser. Surface test MWD - ok.	FNA	0.75
20:00	20:15	20:15	RIH 8-3/4" BHA from 940 to 1150 m.	FNA	0.75
20:15	22:00	22:00	Shallow test MWD - ok.	FNA	0.75
22:00	22:15	22:15	Shallow test MWD - ok.	FNA	0.75
22:15	23:00	23:00	Change RIH 8-3/4" BHA to ram 600 to 914 m.	FNA	0.75

Summary/Remarks:

00:00-00:15 Wash down from 914 to bag top plug @ 940 m.

00:15-00:45 Take SCR for both pumps. Drill out shoe track.

00:45-06:00 Drill 8-3/4" hole from 938 to 1150 m.

Meanwhile PU 8 stands of 5' DP.

-No of observation cards = 7

Personnel

Supply Boats

Standby Boat

Variable Load

Weather Conditions

Main Stock



Mi SWACO		8.75" INTERVAL				SUT Central Plain 1A			
OPERATOR :		SPUD : 28 Mar 07		DATE : 29 Mar 07		DEPTH TVD/MD m.		805 958	
WELL NAME :		AREA : SIRIKIT OILFIELD		RIG : GW80		MUD ENGINEER : Preecha Ruangrak / Wanchana Srisal			
OPERATOR REP : Sarit Rattanachan/ Rongrith P.				CONTRACTOR : GWDC		CONTRACTOR REP : Han Min Jiu			
MUD TYPE : Versaclean OB		MUD PROPERTIES				MUD PROPERTY SPEC.			
SAMPLE FROM		Active		Weight 1.20 sg.		HTHP FL		< 3.0 ml	
TIME SAMPLE TAKEN		21:00		ES Vj 600		Excess Lime		1-2	
PIT/FLOWLINE TEMP. °C						OWR		75/25 - 80/20	
						CaCl2%		20-22	
						Y.P.		6 RPM	
						10-20			
DEPTH MD (m)		858		3143.04 ft		MATERIALS USAGE & COSTS			
DEPTH TVD (m)		805				INITIAL		RECVD.	
MUD WEIGHT (sg)		1.20				RETURN		USED	
FUNNEL VISCOSITY (sec/qt)		57				BAL.		COST	
PLASTIC VISCOSITY (cp)		15				BARITE		1.5 ml / sx	
YIELD POINT (lb/100 cu. ft.)		15				BENTONITE (M-I)		100 lb / sx	
GELS (lb/100 ft³) 10/10/30		16/26/30				CAL CARB (C)		60 kg / sx	
ES (volts)		703				CAL CARB (F)		25 kg / sx	
OIL WATER RATIO		80/20				CAL CARB (M)		50 kg / sx	
HTHP (cm³/30min) @ 250° F		2.1				CAL CHLORIDE		25 kg / sx	
CAKE (32nd in. API/HTHP)		2				DUO-VIS		25 kg / sx	
RET SOLIDS (%vol)		13.5				ECOTROL RD		25 kg / sx	
RET OIL (%vol)		69.0				ESCAID 110		1 m3 bk	
RETORT WATER (%vol)		17.5				HRP		55 gal / dr	
CORRECTED SOLIDS (%vol)		12.3				LIME		25 kg / sx	
% LGS		4.2				NOVATEC F		55 gal / dr	
% BAR		8.1				KCl		25 kg / sx	
LGS ppb		37.9				KCl (BB)		1 mt / sx	
BAR (ppb)		119.2				OIL BASE MUD		1 m3 bk	
ALKALINITY (Pom)		1.4				VERSACOAT IC		55 gal / dr	
EXCESS LIME (lb/bbl)		1.8				VERSAGEL HT		25 kg / sx	
CHLORIDE (mg/l)		32,000				VERSAMOD		55 gal / dr	
CaCl2 (%)		22.3				VERSAMUL IC		55 gal / dr	
						VERSATROL		50 lb / sx	
SAND CONTENT (% vol)		0.40				DAILY ENGR. SERVICE		\$1,300	
AVERAGE SOLIDS, spgr		3.7				PREVIOUS ENGR. TOTAL		\$1,300	
						CUM. ENGR. SERVICE		\$2,600	
						DAILY CHEM. COST		\$37,199.78	
						PREVIOUS CHEM. TOTAL		\$1,230.60	
						CUM. CHEM. TOTAL		\$38,430.38	
RHEOLOGY 600/300		45/30				COMMENTS / RECOMMENDATIONS			
65° C		200/100		21/15		Landed 9 5/8" csg at 953.7mMD circulated and cemented as per program. Displaced cement with 1.20sg OBM. Dumped 6.6m3 neat cement at surface. RVD cement head. MU BOP and pressure test. MU and RIH 8 3/4" directional BHA. Shallow test MWD. RIH to tag cement TOC = 940m. No LOT required (used result from previous well). POOH for MWD change. Re-run to 938m at time of report.			
10/9		10/9				Dumped sandtrap when backreamed out of hole at 466m (5% sand) and 158m (4% sand). BJ used chemicals; 49 sxs KCl and 6 sxs CaCl2. Cleaned and prepared pits for OBM. Transferred mud from storage location to rig site. Received barite from warehouse.			
OOC %									
SOLIDS CONTROL EQUIPMENT				HYDRAULICS		MUD VOLUMES m3		MUD VOL ACCOUNTING (m3)	
SIZE		HOURS		U/F		Ann Vel (m/min)		ANNULAR VOLUME	
Centrifuge #1		152				DP/CSG		26.6	
Centrifuge #2		552S				DP/OH		STRING CAPACITY	
Derrick Shaker 1		165/165/165		5.0		HW/OH		7.9	
Derrick Shaker 2		165/165/165		6.0		DC/OH		OIL ADDED	
Derrick Shaker 3		165/165/165		5.0		ECD		40.4	
						1.20		WATER ADDED	
								5.6	
								TOTAL VOLUME BUILT	
								58.2	
								FORMATION	
								SHAKERS	
								0.3	
								DUMPED / SOLIDS	
								CENTRIFUGES	
								TRIPS	
								0.3	
BIT DATA		STRING DATA			PUMP DATA			EVAPORATION	
TYPE : PDC HCB05		LENGTH			OD			ID	
SIZE: 8 3/4		CSG			PUMP SIZE			5.75x12 in	
JETS: 5x18		DP1			OUTPUT@97%			0.093 bps	
		HWDP			PUMP PRESSURE			bbl/min	
		DC			SURF. TO BIT			psl	
					BOTTOMS UP TIME/STK.			min	
					TOTAL CIRC. TIME/STK.			TOTAL LOSSES	
								OBM T/F TO NEXT WELL	
								231.3	
								CUM BUILT SECTION	
								58.2	
								CUM LOST SECTION	
								0.6	

$$0.093 \frac{\text{bbl}}{\text{s}} \times \frac{60 \text{ s}}{1 \text{ min}} \times \frac{42 \text{ gal}}{1 \text{ bbl}} = 234.36 \text{ gpm}$$

DATE: 01/APR/2007  
 RPT #: 5  
 Well Name: SUT Central Plain 1A  
 Well ID: 2685.00  
 Well Type: Multi-stage Design (m3)  
 Next: WEG @ 2670 m  
 2,691.00

Company: Representatives  
 Company Name: J. R. R. Company  
 Well ID: 2685.00  
 Well Type: Multi-stage Design (m3)  
 Next: WEG @ 2670 m  
 2,691.00

Well Name: SUT Central Plain 1A  
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 Next: WEG @ 2670 m  
 2,691.00

Bit Run	Start (m3)	End (m3)	Time (hrs)	Rate (m/hr)	RCP (m/hr)	Cum Depth (m)	Cum Time (hrs)	Ex ROP (m/hr)	Bit Dia	Flow (L/min)	SPP (psi)	On/Off (m3)

Survey Data	Method	Asm (?)	Incl (?)	Method
WOB (100000)				

Time Log	Start Time	End Time	Comment
00:00	00:30		
00:30	01:00		POOH PEX logging tool from 9-5/8" casing shoe to surface. Max temperature = 100 degC @ 2678.5 mVD, 2018 mVD (9 hr 55 min after EOC). Average hole size = 8.77" (one-arm caliper). Casing Tension & Head Tension were recorded = 5700 and 587 lbf at TD.
01:00	01:15		Unrecorded: surface hole LD PEX. Mud loss while logging = 0.3 m3; loss rate = 0.13 m3/hr.
01:15	01:30		MU XPT tool and surface test.
01:30	02:15		RIH XPT tool from 9-5/8" casing shoe to 2089.5 m (1st p-test point).
02:15	06:00		Perform XPT pressure tests. Total 25 points (25 normal, 10 40% Z-light). Formation pressure = 0.581 SG @ 2089.5 mVD. Max temperature = 102 degC @ 2652 mVD/1937.7 mVD (37 hr 50 min after EOC).
06:00	06:30		POOH XPT tool to 6-5/8" casing shoe.
06:30	06:45		POOH XPT tool from 6-5/8" casing shoe to surface.
06:45	07:00		LD XPT tool. Mud loss while logging = 0.4 m3, loss rate = 0.07 m3/hr.
07:00	07:15		ROD Schlammbagger.
07:15	07:45		ROU 7" casing running equipment.
07:45	08:00		Redrive wear bits.
08:00	08:15		MU 7" shetrack, check lost - ok.
08:15	13:30		RIH 7" casing from 12 m to 100 m (shetrack 9-5/8" casing shoe). Break-circulation at shoe.
11:30	18:00		Continue RIH 7" casing from 938 m to 2673 m.
19:00	19:30		MU 7" hanger choker landing point. Wash down to land 7" casing hanger, weight of weight 80 lbs. - Run 224 joints of 7" casing. #22 SLHC, N80, RS - shoe @ 2685 m. & foot collar @ 2684 m.
19:30	19:45		R/U cement head & lines.
19:45	20:30		Circulate prior cement job (80 spm, 480 psi), 0.14 m3 loss during circulating. Meanwhile perform pre-job safety meeting.

Summary/Remarks
Summary: Continue Perform PEX and XPT logging. Run 7" casing and perform 7" cement job.
Summary: 00:00-06:00 Operations 06:00-06:30 Operations 06:30-07:00 Operations 07:00-07:15 Operations 07:15-07:45 Operations 07:45-08:00 Operations 08:00-08:15 Operations 08:15-13:30 Operations 11:30-18:00 Operations 19:00-19:30 Operations 19:30-19:45 Operations 19:45-20:30 Operations

Mud Products	Track Name	Units	On Loc	Used
DUO-VIS		bx	18.0	2.0
Barite		bx	33.0	4.0
ESCAID 110		m3	43.96	1.6
KCL		bx	69.0	51.0

Personnel	Company	On	Off	Day Total	Mud Total	Mud Com To Take
PTTEP				374,849.00	721,334.00	3,032.76
GWDC						
SU services						
Halliburton						
I-Log						
Mi-Swaco						
PCS						
Pro Waste						
Securcor						
Schlumberger						

Supply Boats	Vessel Name	Arrival Date	Depart
5	Standy Boat		
85			
3			
5			
4			
3			
13			
4			
8			

Weather Conditions	Wave Height (m)	Wave Period (Sec)	Wave Direction	Wind Speed (Knot)

Accidents	Time	Location	Pre-job Meeting
895.00 days without Lost Time Accident (LTA) PTTEP			

Well Name SUT Central Plain 1A		Branch Name Original Hole		Start Depth (mks) 20.00		Completion COMPLETION		DATE: 02/Apr/2007																																																																																																																																																																																																																																																																																																																																																																																																																					
Well ID		Original Hole		Start Depth (mks)		Completion		RPT #: 6																																																																																																																																																																																																																																																																																																																																																																																																																					
SWR0		SUT R.		20.00		COMPLETION		2,888.00																																																																																																																																																																																																																																																																																																																																																																																																																					
Phase		RoughRIP		Next : WEG @ 9, 2088 m		Height Depth (mks)		2,691.00																																																																																																																																																																																																																																																																																																																																																																																																																					
Bit		Bit and Core Head Inventory		Bit Dia		Flow (l/min)		SFP (psi)																																																																																																																																																																																																																																																																																																																																																																																																																					
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MI SWACO		17.50 " INTERVAL				SUT Central Plain 2A					
OPERATOR :		SPUD : 08 May 07		DATE : 08 May 07		DEPTH TVD/MD m.		455 455			
WELL NAME :		AREA : Srikrt oilfield		RIG : GW80		MUD ENGR : Preecha Ruangrak / Chanin Wongdontri					
OPERATOR REP : Aung Kyaw/ Rongrith P.				CONTRACTOR: GWDC		CONTRACTOR REP : Han Min Jiu					
MUD TYPE : Water/Native cl		MUD PROPERTIES				MUD PROPERTY SPEC.					
SAMPLE FROM		Active		Weight 1.15 sg		HTHP FL		OWR			
TIME SAMPLE TAKEN		22:00		ES V		Excess Lime		CaCl2% 6 RPM			
PIT/FLOWLINE TEMP. °C				MATERIALS USAGE & COSTS							
DEPTH MD (m)		404		MATERIAL		INITIAL		RECVD. RETURN USED BAL. COST			
DEPTH TVD (m)		404		BARITE 1.5 mt / sk		42					
MUD WEIGHT (sg)		1.06		BENTONITE (M- 100 lb / sk		111 280		76 315 \$1,113.40			
FUNNEL VISCOSITY (sec/qt)		35		CAL CARB (C) 50 kg / sk		174		174			
PLASTIC VISCOSITY (cp)		5		CAL CARB (F) 25 kg / sk							
YIELD POINT (lb/100 cu. ft)		7		CAL CARB (M) 50 kg / sk		152		152			
GELS (lb/100 ft <sup>3</sup> ) 10/10/30		5/7/9		CAL CHLORIDE 25 kg / sk		190		190			
ES (volts)				DUO-VIS 25 kg / sk		10		10			
OIL WATER RATIO				ECOTROL RD 25 kg / sk		17		17			
HTHP (cm <sup>3</sup> /30min) @ 250° F				ESCAID 110 1 m3 bk		88.55		88.55			
CAKE (32nd in. API/HTHP)				HRP 55 gal / dr		5		5			
RETURN SOLIDS (%vol)		4.0		LIME 25 kg / sk		135		135			
RET. AT OIL (%vol)				NOVATEC F 55 gal / dr		5		5			
RETORT WATER (%vol)		96.0		KCI 25 kg / sk		70 240		310			
CORRECTED SOLIDS (%vol)		4.0		KCI (BB) 1 mt / sk		15		15			
% LGS		4.6		OIL BASE MUD 1 m3 bk		159.60		159.60			
% BAR		N/A		VERSACOAT IC 55 gal / dr		10		10			
LGS ppb		42.3		VERSAGEL HT 25 kg / sk		136		136			
BAR (ppb)		N/A		VERSAMOD 55 gal / dr		7		7			
				VERSAMUL IC 55 gal / dr		13		13			
ALKALINITY (Ppm)				VERSATROL 50 lb / sk		107		107			
EXCESS LIME (lb/bbl)				DAILY ENGR. SERVICE		\$1,300		DAILY CHEM. COST			
CHLORIDE (mg/l)				PREVIOUS ENGR. TOTAL		\$2,600		PREVIOUS CHEM. TOTAL			
CACL2 (%)				CUM. ENGR. SERVICE		\$3,900		CUM. CHEM. TOTAL			
SAND CONTENT (% vol)		0.50		COMMENTS / RECOMMENDATIONS							
AVERAGE SOLIDS, spgr		2.6		Finished R/U. P/U 5" DP. M/U 17.5" BHA. Spudded in at 12:30 hrs. Drilled to 455 m./455m TVD at report time.							
RHEOLOGY 600/300		17/12		Prepared 25 ppb Hivis Bentonite in slug pit. Dumped sandtrap at 102.8m.( 17% sand), 187m.( 16% sand), 302m.(14% sand), 446m.( 11% sand). Blad Hi-vis Bentonite to active system after dumping sand trap. Pumped water from concrete pit to shaker box to maintain volume. Received chemicals from warehouse.							
65° C 200/100		9/6									
6/3		4/3									
OOC % (Brandt / Thule)											
SOLIDS CONTROL EQUIPMENT			HYDRAULICS			MUD VOLUMES m3			MUD VOL ACCOUNTING (m3)		
		SIZE	HOURS	U/F	Ann Val (m/mln)	ANNULAR VOLUME 64.3		STARTING VOL 126.00			
Centrifuge #1		152	10		DP/CSG 25.0	STRING CAPACITY 3.5		OBM RECD FROM PREV. WELL			
Centrifuge #2		552S	10		DP/OH 25.0	ACTIVE PITS 110		OIL ADDED			
Derrick Shaker 1		210/210/210	12		HW/OH 29.0	TOTAL CIRC. VOLUME 177.8		WATER ADDED 128.30			
Derrick Shaker 2		210/210/210	12		DC/OH	RESERVE OBM 16		CHEMICAL ADDED 1.30			
Derrick Shaker 3		210/210/210	12		ECD 1.06	OBM AT M LOCATION		TOTAL VOLUME BUILT 129.60			
						TOTAL VOLUME 193.8		FORMATION			
				SCREENS USED		CASING DATA			SHAKERS 15.00		
									DUMPED 36.00		
									CENTRIFUGES 10.80		
						SHOE TEST (EMW)			TRIPS		
BIT DATA		STRING DATA			PUMP DATA			EVAPORATION			
TYPE : Hughes GTX CG1		LENGTH	OD	ID	PUMP SIZE 6.5x12 In	190 spm	953 gpm	LEFT BEHIND CASING			
SIZE: 17 1/2		CSG			OUTPUT@ 97%	22.7	bb/min	TOTAL LOSSES 61.80			
JETS: 8x14		DP1	296.40	5.000	PUMP PRESSURE		psl	OBM T/F TO NEXT WELL			
		HWDP	129.12	5.000	SURF. TO BIT		min	ENDING VOLUME 193.80			
		DC	29.49	8.000	BOTTOMS UP TIME/STK	17.8 min	3384 stk	CUM BUILT SECTION 255.60			
TFA 1.203		Liner			TOTAL CIRC. TIME/STK	49.3 min	9364 stk	CUM LOST SECTION 61.80			

Mi SWACO		17.50 " INTERVAL				SUT Central Plain 2A					
OPERATOR :		SPUD		DATE : 07 May 07		DEPTH TVD/MD m.					
WELL NAME :		AREA : Sirikit oilfield		RIG : GW80		MUD ENGR : Preecha Ruangrak / Chanin Wongdontri					
OPERATOR REP : Aung Kyaw/Rongrith				CONTRACTOR: GWDC		CONTRACTOR REP : Han Min Jul					
MUD TYPE : Water/Native c/		MUD PROPERTIES				MUD PROPERTY SPEC.					
SAMPLE FROM		Water		Weight 1.15 sg		HTHP FL		OWR		YP	
TIME SAMPLE TAKEN				ES V		Excess Lime		CaCl2%		6 RPM	
PIT/FLOWLINE TEMP. °C				MATERIALS USAGE & COSTS							
DEPTH MD (m)				MATERIAL		INITIAL	RECV'D.	RETURN	USED	BAL.	COST
DEPTH TVD (m)				BARITE		1.5 ml / sx	42			42	
MUD WEIGHT (sg)		1.00		BENTONITE (M-		100 lb / sx	111			111	
FUNNEL VISCOSITY (sec/qt)		27		CAL CARB (C)		50 kg / sx	174			174	
PLASTIC VISCOSITY (cp)				CAL CARB (F)		25 kg / sx					
YIELD POINT (lb/100 cu. ft.)				CAL CARB (M)		50 kg / sx	152			152	
GELS (lb/100 ft³) 10/10/30				CAL CHLORIDE		25 kg / sx	190			190	
ES (volts)				DUO-VIS		25 kg / sx	10			10	
OIL WATER RATIO				ECOTROL RD		25 kg / sx	17			17	
HTHP (cm³/30min) @ 250° F				ESCAID 110		1 m3 bk	88.55			88.55	
CAKE (32nd In. API/HTHP)				HRP		55 gal / dr	5			5	
RET. RT SOLIDS (%vol)				LIME		25 kg / sx	135			135	
RET. RT OIL (%vol)				NOVATEC F		55 gal / dr	5			5	
RETORT WATER (%vol)				KCI		25 kg / sx	70			70	
CORRECTED SOLIDS (%vol)				KCI (BB)		1 ml / sx	15			15	
% LGS				OIL BASE MUD		1 m3 bk	159.60			159.60	
% BAR				VERSACOAT IC		55 gal / dr	10			10	
LGS ppb				VERSAGEL HT		25 kg / sx	136			136	
BAR (ppb)				VERSAMOD		55 gal / dr	7			7	
ALKALINITY (Pom)				VERSAMUL IC		55 gal / dr	13			13	
EXCESS LIME (lb/bbl)				VERSATROL		50 lb / sx	107			107	
CHLORIDE (mg/l)				DAILY ENGR. SERVICE		\$2,600				DAILY CHEM. COST	
CACL2 (%)				PREVIOUS ENGR. TOTAL						PREVIOUS CHEM. TOTAL	
				CUM. ENGR. SERVICE		\$2,600				CUM. CHEM. TOTAL	
SAND CONTENT (% vol)				COMMENTS / RECOMMENDATIONS							
AVERAGE SOLIDS, spgr				Rigged up at LKU-F location.							
RHEOLOGY 600/300				Charged off 2 days engineering service (6th and 7th May). Filled up all active pits with water. Dressed up all shakers with 200 mesh screens.							
65° C 200/100											
6/3											
OOC % (Brandt / Thule)											
SOLIDS CONTROL EQUIPMENT				HYDRAULICS		MUD VOLUMES		m3		MUD VOL ACCOUNTING (m3)	
SIZE		HOURS	U/F	Ann Vel (m/min)	ANNULAR VOLUME	STRING CAPACITY	STARTING VOL				
Centrifuge #1				DP/CSG			OBM RECD FROM PREV. WELL				
Centrifuge #2				DP/OH		ACTIVE PITS	110			OIL ADDED	
Derrick Shaker 1		210/210/210		HW/OH		TOTAL CIRC. VOLUME	110			WATER ADDED	126.00
Derrick Shaker 2		210/210/210		DC/OH		RESERVE WBM	16			CHEMICAL ADDED	
Derrick Shaker 3		210/210/210		ECD		OBM AT M LOCATION				TOTAL VOLUME BUILT	126.00
						TOTAL VOLUME	126			FORMATION	
				SCREENS USED		CASING DATA				SHAKERS	
										DUMPED	
										CENTRIFUGES	
						SHOE TEST (EMW)				TRIPS	
BIT DATA		STRING DATA			PUMP DATA			EVAPORATION			
TYPE :		LENGTH	OD	ID	PUMP SIZE	6.5x12 In	spm	gpm	LEFT BEHIND CASING		
SIZE:	17 1/2	CSG			OUTPUT@ 97%		bbl/min		TOTAL LOSSES		
JETS:		DP1			PUMP PRESSURE		psi		OBM T/F TO NEXT WELL		
		HWDP			SURF. TO BIT		min		ENDING VOLUME	126.00	
		DC			BOTTOMS UP TIME/STK				CUM BUILT SECTION	126.00	
TFA	Liner				TOTAL CIRC. TIME/STK				CUM LOST SECTION		

Mi SWACO		17.50 " INTERVAL				SUT Central Plain 1A											
OPERATOR		SPUD		DATE : 07 May 07		DEPTH TVD/MD m.											
WELL NAME :		AREA : Srikk oilfield		RIG : GW80		MUD ENGR : Preecha Ruangrak / Chanin Wongdontri											
OPERATOR REP : Aung Kyaw/Rongrith		CONTRACTOR: GWDC		CONTRACTOR REP : Han Min Jul													
MUD TYPE : Water/Native cl		MUD PROPERTIES				MUD PROPERTY SPEC.											
SAMPLE FROM		Water		Weight: 1.15 sg		HTHP FL		OWR		YP							
TIME SAMPLE TAKEN				ES V		Excess Lime		CaCl2%		6 RPM							
PIT/FLOWLINE TEMP. °C				MATERIALS USAGE & COSTS													
DEPTH MD (m)				MATERIAL		INITIAL		RECV'D		RETURN		USED		BAL.		COST	
DEPTH TVD (m)				BARITE		1.5 mt / sx		42						42			
MUD WEIGHT (sg)		1.00		BENTONITE (M-		100 lb / sx		111						111			
FUNNEL VISCOSITY (sec/qt)		27		CAL CARB (C)		50 kg / sx		174						174			
PLASTIC VISCOSITY (cp)				CAL CARB (F)		25 kg / sx											
YIELD POINT (lb/100 cu. ft.)				CAL CARB (M)		50 kg / sx		152						152			
GELS (lb/100 ft.) 10/10/30				CAL CHLORIDE		25 kg / sx		190						190			
ES (volts)				DUO-VIS		25 kg / sx		10						10			
OIL WATER RATIO				ECOTROL RD		25 kg / sx		17						17			
HTHP (cm <sup>3</sup> /30min) @ 250° F				ESCAID 110		1 m3 bk		88.55						88.55			
CAKE (32nd in. API/HTHP)				HRP		55 gal / dr		5						5			
RETURN SOLIDS (%vol)				LIME		25 kg / sx		135						135			
RETURN OIL (%vol)				NOVATEC F		55 gal / dr		5						5			
RETURN WATER (%vol)				KCI		25 kg / sx		70						70			
CORRECTED SOLIDS (%vol)				KCI (BB)		1 mt / sx		15						15			
% LGS				OIL BASE MUD		1 m3 bk		159.60						159.60			
% BAR				VERSACOAT IC		55 gal / dr		10						10			
LGS ppb				VERSAGEL HT		25 kg / sx		136						136			
BAR (ppb)				VERSAMOD		55 gal / dr		7						7			
ALKALINITY (Pom)				VERSAMUL IC		55 gal / dr		13						13			
EXCESS LIME (lb/bbl)				VERSATROL		50 lb / sx		107						107			
CHLORIDE (mg/l)				DAILY ENGR. SERVICE				\$2,600		DAILY CHEM. COST							
CACL2 (%)				PREVIOUS ENGR. TOTAL						PREVIOUS CHEM. TOTAL							
SAND CONTENT (% vol)				CUM. ENGR. SERVICE				\$2,600		CUM. CHEM. TOTAL							
AVERAGE SOLIDS, spgr				COMMENTS / RECOMMENDATIONS													
RHEOLOGY 600/300				Rigged up at LKU-F location.													
65° C 200/100																	
6/3																	
OOC % (Brandt / Thule)				Charged off 2 days engineering service (6th and 7th May). Filled up all active pits with water. Dressed up all shakers with 200 mesh screens.													
SOLIDS CONTROL EQUIPMENT				HYDRAULICS				MUD VOLUMES m3				MUD VOL ACCOUNTING (m3)					
SIZE		HOURS		U/F		Ann Vel (m/min)		ANNULAR VOLUME		STARTING VOL							
Centrifuge #1						DP/CSG		STRING CAPACITY		OBM RECD FROM PREV. WELL							
Centrifuge #2						DP/OH		ACTIVE PITS		110		OIL ADDED					
Derrick Shaker 1		210/210/210				HW/OH		TOTAL CIRC. VOLUME		110		WATER ADDED		126.00			
Derrick Shaker 2		210/210/210				DC/OH		RESERVE WBM		16		CHEMICAL ADDED					
Derrick Shaker 3		210/210/210				ECD		OBM AT M LOCATION				TOTAL VOLUME BUILT		126.00			
								TOTAL VOLUME		126		FORMATION					
SCREENS USED				CASING DATA				SHAKERS									
								DUMPED									
								CENTRIFUGES									
								TRIPS									
BIT DATA		STRING DATA				PUMP DATA				EVAPORATION							
TYPE :		LENGTH		OD		ID		PUMP SIZE 6.5x12 in		spm		gpm		LEFT BEHIND CASING			
SIZE: 17 1/2		CSG						OUTPUT@ 97%		bb/min		TOTAL LOSSES					
JETS:		DP1						PUMP PRESSURE		psi		OBM T/F TO NEXT WELL					
		HWDP						SURF. TO BIT		min		ENDING VOLUME		126.00			
		DC						BOTTOMS UP TIME/STK				CUM BUILT SECTION		126.00			
TFA		Liner						TOTAL CIRC. TIME/STK				CUM LOST SECTION					



17.50 " INTERVAL

SUT Central Plain 1A

OPERATOR :		SPUD : 08 May 07		DATE : 08 May 07		DEPTH TVD/MD m.		455		455							
WELL NAME :		AREA : Sirikit oilfield		RIG : GW80		MUD ENGR : Preecha Ruangrak / Chanin Wongdontri											
OPERATOR REP : Aung Kyaw/ Rongrith P.				CONTRACTOR: GWDC				CONTRACTOR REP : Han Min Jiu									
MUD TYPE : Water/Native cl		MUD PROPERTIES				MUD PROPERTY SPEC.											
SAMPLE FROM		Active		Weight 1.15 sg		HTHP FL		OWR		YP							
TIME SAMPLE TAKEN		22:00		ES V		Excess Lime		CaCl2%		6 RPM							
PIT/FLOWLINE TEMP. °C		MATERIALS USAGE & COSTS															
DEPTH MD (m)		404		MATERIAL		INITIAL		RECVD.		RETURN		USED		BAL.		COST	
DEPTH TVD (m)		404		BARITE		1.5 mt / sk		42						42			
MUD WEIGHT (sg)		1.06		BENTONITE (M-		100 lb / sk		111		280		76		315		\$1,113.40	
FUNNEL VISCOSITY (sec/qt)		35		CAL CARB (C)		50 kg / sk		174						174			
PLASTIC VISCOSITY (cp)		5		CAL CARB (F)		25 kg / sk											
YIELD POINT (lb/100 cu. ft)		7		CAL CARB (M)		50 kg / sk		152						152			
GELS (lb/100 ft <sup>3</sup> ) 10/10/30		5/7/9		CAL CHLORIDE		25 kg / sk		190						190			
ES (volts)				DUO-VIS		25 kg / sk		10						10			
OIL WATER RATIO				ECOTROL RD		25 kg / sk		17						17			
HTHP (cm <sup>3</sup> /30min) @ 250° F				ESCAID 110		1 m3 bk		88.55						88.55			
CAKE (32nd in. APU/HTHP)				HRP		55 gal / dr		5						5			
REPORT SOLIDS (%vol)		4.0		LIME		25 kg / sk		135						135			
RESERVE OIL (%vol)				NOVATEC F		55 gal / dr		5						5			
RETORT WATER (%vol)		98.0		KCI		25 kg / sk		70		240				310			
CORRECTED SOLIDS (%vol)		4.0		KCI (BB)		1 mt / sk		15						15			
% I.G.S		4.6		OIL BASE MUD		1 m3 bk		159.60						159.60			
% BAK		N/A		VERSACOAT IC		55 gal / dr		10						10			
LGS ppb		42.3		VERSAGEL HT		25 kg / sk		136						136			
BAR (ppb)		N/A		VERSAMOD		55 gal / dr		7						7			
ALKALINITY (Ppm)				VERSAMUL IC		55 gal / dr		13						13			
EXCESS LIME (lb/bbl)				VERSATROL		50 lb / sk		107						107			
CHLORIDE (mg/l)				DAILY ENGR. SERVICE				\$1,300		DAILY CHEM. COST				\$1,113.40			
CaCl2 (%)				PREVIOUS ENGR. TOTAL				\$2,600		PREVIOUS CHEM. TOTAL							
				CUM. ENGR. SERVICE				\$3,900		CUM. CHEM. TOTAL				\$1,113.40			
SAND CONTENT (% vol)		0.50		COMMENTS / RECOMMENDATIONS													
AVERAGE SOLIDS, spgr		2.6		Finished R/U. P/U 5" DP. M/U 17.5" BHA. Spudded in at 12:30 hrs. Drilled to 455 m/455m TVD at report time.													
RHEOLOGY 600/300		17/12		<p style="text-align: center;">253.35 gpm</p> <p>Prepared 25 ppb Hivis Bentonite in slug pit. Dumped sandtrap at 102.8m. (17% sand), 167m. (16% sand), 302m. (14% sand), 446m. (11% sand). Bled Hi-vis Bentonite to active system after dumping sand trap. Pumped water from concrete pit to shaker box to maintain volume. Received chemicals from warehouse.</p>													
15° C 200/100		9/6															
65 6/3		4/3															
XOC % (Brandt / Thule)																	
SOLIDS CONTROL EQUIPMENT				HYDRAULICS		MUD VOLUMES		m3		MUD VOL ACCOUNTING		(m3)					
SIZE		HOURS		Ann Vel (m/min)		ANNULAR VOLUME		64.3		STARTING VOL		126.00					
enriferuge #1		152		10		DP/CSG 25.0		STRING CAPACITY		3.5		OBM RECD FROM PREV. WELL					
enriferuge #2		552S		10		DP/OH 25.0		ACTIVE PITS		110		OIL ADDED					
erick Shaker 1		210/210/210		12		HW/OH 29.0		TOTAL CIRC. VOLUME		177.8		WATER ADDED					
erick Shaker 2		210/210/210		12		DC/OH		RESERVE OBM		16		CHEMICAL ADDED					
erick Shaker 3		210/210/210		12		ECD 1.06		OBM AT M LOCATION				TOTAL VOLUME BUILT					
								TOTAL VOLUME		193.8		FORMATION					
SCREENS USED				CASING DATA				SHAKERS				15.00					
								DUMPED				38.00					
								CENTRIFUGES				10.80					
								SHOE TEST (EMW)				TRIPS					
BIT DATA		STRING DATA				PUMP DATA				EVAPORATION							
/PE: Hughes GTX CG1		LENGTH		OD		ID		PUMP SIZE 6.5x12 in		190 spm		953 gpm		LEFT BEHIND CASING			
ZE: 17 1/2		CSG		1146.01				OUTPUT @ 97%		22.7		bb/min		TOTAL LOSSES			
ITS: 8x14		DP1		296.40		5.000		4.276		PUMP PRESSURE				psi			
		HWDP		129.12		5.000		3.000		SURF. TO BIT				min			
		DC		29.49		8.000		3.250		BOTTOMS UP TIME/STK		17.8 min		3384 stk			
A 1.203		Liner		16.15						TOTAL CIRC. TIME/STK		49.3 min		9364 stk			
										CUM BUILT SECTION				255.60			
										CUM LOST SECTION				61.80			

Th 2 / 144: 01

SUT Central Plain 1B

Field Name	Branch Name	Site Code (m/s)	Company's Representatives	Casing	DATE:
S1	Original Hole	20.00	Sanji F President P/ Samanthapong M	00 (m)	30-Apr-2008
GW80	Rig	Phase		Depth (m/s)	RPT #:
	6-3/4			2,572.00	6
				Weight Depth (m/s)	
				2,576.00	

Penetration	Start (m/s)	End (m/s)	Interval (m)	Time (hrs)	ROP (m/s)	Cum Depth (m)	Bit	Bit Ind Core Head Inventory	Bit Dia	Surf (mm)	Floor (mm)	SPP (gal)	On Bit (kwh)
Drilling Assembly	B/A												

Time Log	Start Time	End Time	Code	Day (hrs)	Comment
08:00	08:45	09:30	C1	8.75	Continue RIH 7' Pre-cased casing to 2559 m.
09:30	10:15	10:30	C2	0.25	Drop bottom 3M3. Min and pump 149 bits of 12.9 SG single slurry, 5.0 bpm. Use 6.8Z hole plus 10% excess for cement calculation.
10:30	11:00	12:30	C2	0.25	Stand off pressure - no back flow. Estimate LOC at 425 m from volumetric calculation. Cement sample un-pumpable 6 hrs after mixing.
12:30	13:15	13:45	C3	0.50	Set pack off. Lock & pull test 10 lbs. ok. Pressure test pack-off seal to 3000 psi 10 min. ok.

Summary/Remarks	Summary:
	Continue RIH 7' casing to 2559 m. Wash down to land casing hanger. Perform 7' cement casing job. Install pack-off and P-test to 3000 psi. OK. Rig skid to LKU-B28 (BAD).
	*** Rig release at 14:30 hrs on 30-April-2008. Total operating time 4.94 days (rig accept to rig release), 5.02 days (rig release to rig release)***
	Remark: Number of observation cards = 30 Total skid distance = 3 m.

Time Log	Start Time	End Time	Code	Day (hrs)	Comment
08:00	08:45	09:30	C1	8.75	Continue RIH 7' Pre-cased casing to 2559 m.
09:30	10:15	10:30	C2	0.25	Drop bottom 3M3. Min and pump 149 bits of 12.9 SG single slurry, 5.0 bpm. Use 6.8Z hole plus 10% excess for cement calculation.
10:30	11:00	12:30	C2	0.25	Stand off pressure - no back flow. Estimate LOC at 425 m from volumetric calculation. Cement sample un-pumpable 6 hrs after mixing.
12:30	13:15	13:45	C3	0.50	Set pack off. Lock & pull test 10 lbs. ok. Pressure test pack-off seal to 3000 psi 10 min. ok.

Operation Summary:	Continue RIH 7' casing to 2559 m. Wash down to land casing hanger. Perform 7' cement casing job. Install pack-off and P-test to 3000 psi. OK. Rig skid to LKU-B28 (BAD).
Well status at 6:00 am:	
Planned Operation:	
Accidents:	196.00 days without Lost Time Accident (LTA) PTTEP
Pre-job meeting	
Safety Data	

Personnel	Company	On	Off
PTTEP		5	5
SHUC (Catering)		4	4
I-Log		3	3
SCOMI (Drilling fluid)		6	6
SCOMI (Drilling fluid)		6	6
SLB-Logging		0	0
PCS		3	3

Supply Boats	Used	Standby Boats	Used
1	1	0	0
2	2	0	0
3	3	0	0
4	4	0	0
5	5	0	0

Weather Conditions	Wind Speed (Knot)	Wave Height (m)	Wave Period (Sec)	Wave Direction
0				
Variable Load	Man/Variable Load (TONNES)			

Drill Products	Trade Name	Units	On	Used
	KCI (MT/BBS)	MT	9.0	5.0
	SHUC (Catering)	MT	1.5MT	1.5MT
	DRILL BAR	MT	21.0	3.0

Survey Data	MO (m/s)	Surf (m)	Arm (m)	Method

Mud	Head Type	Head 1 (PC)
	CONF/DRILL OBM	
	Head Weight (kg)	49
	Head (m)	140.66
	Form Gen (m)	9.96
	YP (m/100ft)	10
	PL (m/100ft)	12
	PL (m/100ft)	21
	PL (m/100ft)	65
	Ca++ (mg/L)	1.28
	Mg++ (mg/L)	150.62
	SO4 (mg/L)	140.66
	Cl (mg/L)	140.66
	NO3 (mg/L)	140.66
	Fe (mg/L)	140.66
	PH (mg/L)	140.66
	Water (%)	140.66
	Oil (%)	140.66
	SG (mg/L)	140.66
	Loss (mg/L)	140.66
	Loss (mg/L)	140.66
	Loss (mg/L)	140.66

Drilling Assembly	Start (m/s)	End (m/s)	Interval (m)	Time (hrs)	ROP (m/s)	Cum Depth (m)	Bit	Bit Ind Core Head Inventory	Bit Dia	Surf (mm)	Floor (mm)	SPP (gal)	On Bit (kwh)
	B/A												

Time Log	Start Time	End Time	Code	Day (hrs)	Comment
08:00	08:45	09:30	C1	8.75	Continue RIH 7' Pre-cased casing to 2559 m.
09:30	10:15	10:30	C2	0.25	Drop bottom 3M3. Min and pump 149 bits of 12.9 SG single slurry, 5.0 bpm. Use 6.8Z hole plus 10% excess for cement calculation.
10:30	11:00	12:30	C2	0.25	Stand off pressure - no back flow. Estimate LOC at 425 m from volumetric calculation. Cement sample un-pumpable 6 hrs after mixing.
12:30	13:15	13:45	C3	0.50	Set pack off. Lock & pull test 10 lbs. ok. Pressure test pack-off seal to 3000 psi 10 min. ok.

Operation Summary:	Continue RIH 7' casing to 2559 m. Wash down to land casing hanger. Perform 7' cement casing job. Install pack-off and P-test to 3000 psi. OK. Rig skid to LKU-B28 (BAD).
Well status at 6:00 am:	
Planned Operation:	
Accidents:	196.00 days without Lost Time Accident (LTA) PTTEP
Pre-job meeting	
Safety Data	

Personnel	Company	On	Off
PTTEP		5	5
SHUC (Catering)		4	4
I-Log		3	3
SCOMI (Drilling fluid)		6	6
SCOMI (Drilling fluid)		6	6
SLB-Logging		0	0
PCS		3	3

Supply Boats	Used	Standby Boats	Used
1	1	0	0
2	2	0	0
3	3	0	0
4	4	0	0
5	5	0	0

Weather Conditions	Wind Speed (Knot)	Wave Height (m)	Wave Period (Sec)	Wave Direction
0				
Variable Load	Man/Variable Load (TONNES)			

Drill Products	Trade Name	Units	On	Used
	KCI (MT/BBS)	MT	9.0	5.0
	SHUC (Catering)	MT	1.5MT	1.5MT
	DRILL BAR	MT	21.0	3.0

Survey Data	MO (m/s)	Surf (m)	Arm (m)	Method

Mud	Head Type	Head 1 (PC)
	CONF/DRILL OBM	
	Head Weight (kg)	49
	Head (m)	140.66
	Form Gen (m)	9.96
	YP (m/100ft)	10
	PL (m/100ft)	12
	PL (m/100ft)	21
	PL (m/100ft)	65
	Ca++ (mg/L)	1.28
	Mg++ (mg/L)	150.62
	SO4 (mg/L)	140.66
	Cl (mg/L)	140.66
	NO3 (mg/L)	140.66
	Fe (mg/L)	140.66
	PH (mg/L)	140.66
	Water (%)	140.66
	Oil (%)	140.66
	SG (mg/L)	140.66
	Loss (mg/L)	140.66
	Loss (mg/L)	140.66
	Loss (mg/L)	140.66

Drilling Assembly	Start (m/s)	End (m/s)	Interval (m)	Time (hrs)	ROP (m/s)	Cum Depth (m)	Bit	Bit Ind Core Head Inventory	Bit Dia	Surf (mm)	Floor (mm)	SPP (gal)	On Bit (kwh)
	B/A												

Time Log	Start Time	End Time	Code	Day (hrs)	Comment
08:00	08:45	09:30	C1	8.75	Continue RIH 7' Pre-cased casing to 2559 m.
09:30	10:15	10:30	C2	0.25	Drop bottom 3M3. Min and pump 149 bits of 12.9 SG single slurry, 5.0 bpm. Use 6.8Z hole plus 10% excess for cement calculation.
10:30	11:00	12:30	C2	0.25	Stand off pressure - no back flow. Estimate LOC at 425 m from volumetric calculation. Cement sample un-pumpable 6 hrs after mixing.
12:30	13:15	13:45	C3	0.50	Set pack off. Lock & pull test 10 lbs. ok. Pressure test pack-off seal to 3000 psi 10 min. ok.

Operation Summary:	Continue RIH 7' casing to 2559 m. Wash down to land casing hanger. Perform 7' cement casing job. Install pack-off and P-test to 3000 psi. OK. Rig skid to LKU-B28 (BAD).
Well status at 6:00 am:	
Planned Operation:	
Accidents:	196.00 days without Lost Time Accident (LTA) PTTEP
Pre-job meeting	
Safety Data	

Personnel	Company	On	Off
PTTEP		5	5
SHUC (Catering)		4	4
I-Log		3	3
SCOMI (Drilling fluid)		6	6
SCOMI (Drilling fluid)		6	6
SLB-Logging		0	0
PCS		3	3

Supply Boats	Used	Standby Boats	Used
1	1	0	0
2	2	0	0
3	3	0	0
4	4	0	0
5	5	0	0

Weather Conditions	Wind Speed (Knot)	Wave Height (m)	Wave Period (Sec)	Wave Direction
0				
Variable Load	Man/Variable Load (TONNES)			

Drill Products	Trade Name	Units	On	Used
	KCI (MT/BBS)	MT	9.0	5.0
	SHUC (Catering)	MT	1.5MT	1.5MT
	DRILL BAR	MT	21.0	3.0

Survey Data	MO (m/s)	Surf (m)	Arm (m)	Method

Mud	Head Type	Head 1 (PC)
	CONF/DRILL OBM	
	Head Weight (kg)	49
	Head (m)	140.66
	Form Gen (m)	9.96
	YP (m/100ft)	10
	PL (m/100ft)	12
	PL (m/100ft)	21
	PL (m/100ft)	65
	Ca++ (mg/L)	1.28
	Mg++ (mg/L)	150.62
	SO4 (mg/L)	140.66
	Cl (mg/L)	140.66
	NO3 (mg/L)	140.66
	Fe (mg/L)	140.66
	PH (mg/L)	140.66
	Water (%)	140.66
	Oil (%)	140.66
	SG (mg/L)	140.66
	Loss (mg/L)	140.66
	Loss (mg/L)	140.66
	Loss (mg/L)	140.66

Drilling Assembly	Start (m/s)	End (m/s)	Interval (m)	Time (hrs)	ROP (m/s)	Cum Depth (m)	Bit	Bit Ind Core Head Inventory	Bit Dia	Surf (mm)	Floor (mm)	SPP (gal)	On Bit (kwh)
	B/A												

Time Log	Start Time	End Time	Code	Day (hrs)	Comment
08:00	08:45	09:30	C1	8.75	Continue RIH 7' Pre-cased casing to 2559 m.
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Operation Summary:	Continue RIH 7' casing to 2559 m. Wash down to land casing hanger. Perform 7' cement casing job. Install pack-off and P-test to 3000 psi. OK. Rig skid to LKU-B28 (BAD).
Well status at 6:00 am:	
Planned Operation:	
Accidents:	196.00 days without Lost Time Accident (LTA) PTTEP
Pre-job meeting	
Safety Data	

Personnel	Company	On	Off
PTTEP		5	5
SHUC (Catering)		4	4
I-Log		3	3
SCOMI (Drilling fluid)		6	6
SCOMI (Drilling fluid)		6	6
SLB-Logging		0	0
PCS		3	3

Supply Boats	Used	Standby Boats	Used
1	1	0	0
2	2	0	0
3	3	0	0
4	4	0	0
5	5	0	0

Weather Conditions	Wind Speed (Knot)	Wave Height (m)	Wave Period (Sec)	Wave Direction
0				
Variable Load	Man/Variable Load (TONNES)			

Drill Products	Trade Name	Units	On	Used
	KCI (MT/BBS)	MT	9.0	5.0
	SHUC (Catering)	MT	1.5MT	1.5MT
	DRILL BAR	MT	21.0	3.0

Survey Data	MO (m/s)	Surf (m)	Arm (m)	Method

Mud	Head Type	Head 1 (PC)
	CONF/DRILL OBM	
	Head Weight (kg)	49
	Head (m)	140.66
	Form Gen (m)	9.96
	YP (m/100ft)	10
	PL (m/100ft)	12
	PL (m/100ft)	21
	PL (m/100ft)	65
	Ca++ (mg/L)	1.28
	Mg++ (mg/L)	150.62
	SO4 (mg/L)	140.66
	Cl (mg/L)	140.66
	NO3 (mg/L)	140.66
	Fe (mg/L)	140.66
</		





SUT Central Plain 1B

Field Name	DATE: 27/Apr/2008
S1	RPT #: 3
Company's Representatives	
Casing	
Next: F casing @ 2,577 m.	

Penetration		Parameters		Mud																									
Drilling Assembly		Survey Data		Mud Products																									
<table border="1"> <thead> <tr> <th>Time Log</th> <th>Start Time</th> <th>End Time</th> <th>Comment</th> <th>Code</th> <th>Dur (hrs)</th> </tr> </thead> <tbody> <tr> <td>12:15</td> <td>12:30</td> <td></td> <td>Drill out float equipment, WOB 2-8 kiba, 2x75 SPM, 200 psi, 70 rpm, 3-5 mt-lb.</td> <td>C4</td> <td>0.25</td> </tr> <tr> <td>12:30</td> <td>12:45</td> <td></td> <td>Drill out float equipment, WOB 2-8 kiba, 2x75 SPM, 200 psi, 70 rpm, 3-5 mt-lb.</td> <td>C4</td> <td>0.25</td> </tr> <tr> <td>12:45</td> <td>00:00</td> <td></td> <td>Including directional survey.</td> <td>F7</td> <td>1.25</td> </tr> </tbody> </table>		Time Log	Start Time	End Time	Comment	Code	Dur (hrs)	12:15	12:30		Drill out float equipment, WOB 2-8 kiba, 2x75 SPM, 200 psi, 70 rpm, 3-5 mt-lb.	C4	0.25	12:30	12:45		Drill out float equipment, WOB 2-8 kiba, 2x75 SPM, 200 psi, 70 rpm, 3-5 mt-lb.	C4	0.25	12:45	00:00		Including directional survey.	F7	1.25	<p><b>Summary/Remarks</b></p> <p>Summary:                  RH 9-5/8" casing, Perform 9-5/8" cement job, R/D flow riser, NU BOP, Patent BOP, MAU 8-3/4" BHA and RIH to TOC. Drill out float shoe and continue drilling 8-3/4" hole section to 1,787 m.</p> <p>00:00 - 06:00 hr operation                  00:00 - 06:00 hrs Continue drilling 8-3/4" hole from 1,787 m. to 2,133 m.</p> <p>Remark:                  - Number of observation cards = 0                  - Perform cement top job 15 bbls, 13 ppg</p>		<p>Supply Boats</p> <p>Standby Boat</p> <p>Variable Load</p> <p>Weather Conditions</p> <p>Main Stock</p>	
Time Log	Start Time	End Time	Comment	Code	Dur (hrs)																								
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<p>Operation Summary:                  RH 9-5/8" casing, Perform 9-5/8" cement job, R/D flow riser, NU BOP, Patent BOP, MAU 8-3/4" BHA and RIH to TOC. Drill out float shoe and continue drilling 8-3/4" hole section to 1,787 m.</p> <p>00:00 - 06:00 hr operation                  Well status at 06:00 am:                  Drill 8-3/4" hole section to 2,133 m.</p> <p>Planned Operation:                  Continue drilling 8-3/4" hole to TD. Circulate hole clean and POOH, Perform PEI and XPT logging</p> <p>Accidents:                  196.00 days without Lost Time Accident (LTA) FTTEP</p>		<p>Personnel</p>		<p>Summary/Remarks</p>																									



SUT Central Plain 1A

Field Name	Company's Representatives	Casing	DATE: 26/Apr/2008
S1		Next: 9 5/8" casing @ 1096 m	RPT #: 2

Time Log	End Time	Comment	Case	Dir (hrs)
16:30	00:00	RAU and MU shoe joint check float ok. RIH with 9 5/8" casing to 968 m, wash down through light spot @ 744 m, 754 m, 773 m, 819 m, 824 m, 830 m.	C1	7:30
<p>00:00 - 06:00 hr operation</p> <p>00:00 - 00:30 hrs Continuous RIH 9 5/8" casing to 1,083 m.</p> <p>00:30 - 01:15 hrs MU weathered CV landing joint. Wash down and land wellhead with 80 kbs landing weight. Tool run: 80 joints of 9-5/8" casing, 36#, K-35, 81C, R3, Flask shoe at 1096 m and float collar at 1092 m.</p> <p>01:15 - 01:45 hrs RAU cement head and lines. Break circulation meanwhile hold PJSM.</p> <p>01:45 - 02:30 hrs Dowell flush line with 2 bbls of flush water. Pressure test line to 3200 psi - ok.</p> <p>02:30 - 02:15 hrs Dowell mix and pump 12 bbls of 1.38 SG lead slurry.</p> <p>02:15 - 04:00 hrs Observe cement density drop and unable to increase. Check knife valve and lines cement mix. Found foam traps mixing lines. Clean and clear foam, ok.</p> <p>04:00 - 04:30 hrs Continue to pump total 239.7 bbls (6.3 bbls) of 1.38 SG lead slurry and 40.6 bbls (6.3 bbls) of 1.58 SG tail slurry. Use 12.8" hole plus 10% excess for cement calculation.</p> <p>04:30 - 04:45 hrs Dowell flush line with 2 bbls of fresh water. Drop top plug. Rig displace cement with 27.7 bbls (44.18 m3) of 1.25 SG OBM. Bump plug at 2985 stroke (97% MP eff). C/P 4:38 hr. Dump 1.3 m3 of cementate cement. Expect TOC on surface.</p> <p>04:45 - 05:15 hrs Pressure test casing to 3000 psi/10 min - ok. Bleed off pressure - no back flow. ROJ cement head. LJO landing joint. Cement sample un-pumpable 4 hrs after mixing.</p> <p>05:15 - 06:00 hrs ROJ 20" flow riser. Install wellhead side outlets.</p>				
<p><b>Summary/Remarks</b></p> <p>Summary:                  Drill 12 1/4" hole to TD - Back ream out of hole - RAU and RIH 9 5/8" casing</p> <p>Remark:                  - Number of observation cards = 19</p> <p>Mud Products</p>				
<p><b>Survey Data</b></p> <p>Mud</p>				
<p><b>Parameters</b></p> <p>Main Stock</p>				
<p><b>Personnel</b></p> <p>Supply Boats</p> <p>Standby Boat</p> <p>Variable Load</p> <p>Weather Conditions</p>				
<p><b>Operation Summary:</b></p> <p>Drill 12 1/4" hole to TD - Back ream out of hole - RAU and RIH 9 5/8" casing</p> <p>Well status at 6:00 am:                  Install side outlets - NU BOP</p> <p>Planned Operation:                  RIH 8 3/4" BHA - Drill out cement - Drill 8 3/4" hole to TD</p> <p>Accidents:                  195.00 days without Lost Time Accident (LTA) PTTEP</p>				



**SUT Central Plain 1A**

Field Name: S1 DATE: 25/Apr/2008  
 Original Hole: 20.00 Depth (m): 20.00 RPT #: 1  
 SW60: 12-1/4" Place: Pralbert PI Samathapong M Next 3 5/8" casing @ 1.08 m Weight Depth (m): 411.00

Company Name: SUT Central Plain 1A  
 Company Representative: Pralbert PI Samathapong M  
 Date: 25/Apr/2008  
 RPT #: 1

Well: 3 5/8" casing @ 1.08 m

Penetration	Start (m)	End (m)	Interval (m)	Time (hrs)	ROP (m/hr)	Cum. Depth (m)	Cum. Time (hrs)	Total ROP (m/hr)	Bit Dia	Parameters
1R	20.00	411.00	391.00	4.00	97.4	391.00	4.00	97.4	84.70	WOB (1000lb): 18 RPM (rpm): 90 Flow (l/min): 3,500 SPP (psi): 1,700.0 On Bit (kPa): 9,000

Drilling Assembly	Code	Dur (hrs)	Inc (ft)	Ass (ft)	Method	Mud Type
1R	A1B	1.00	0.44	18.64	MWD	Fresh Water
	A1C	1.00	7.43	235.84	MWD	
	F10	0.75	11.47	224.57	MWD	
	F01	3.50	19.40	238.53	MWD	
	F02	0.75	23.48	243.61	MWD	
	F03	0.75	24.83	248.33	MWD	
	F04	0.75	26.50	253.83	MWD	
	F05	0.75	28.50	260.33	MWD	
	F06	0.75	30.50	267.83	MWD	
	F07	0.75	32.50	275.33	MWD	
	F08	0.75	34.50	282.83	MWD	
	F09	0.75	36.50	290.33	MWD	
	F10	0.75	38.50	297.83	MWD	
	F11	0.75	40.50	305.33	MWD	
	F12	0.75	42.50	312.83	MWD	
	F13	0.75	44.50	320.33	MWD	
	F14	0.75	46.50	327.83	MWD	
	F15	0.75	48.50	335.33	MWD	
	F16	0.75	50.50	342.83	MWD	
	F17	0.75	52.50	350.33	MWD	
	F18	0.75	54.50	357.83	MWD	
	F19	0.75	56.50	365.33	MWD	
	F20	0.75	58.50	372.83	MWD	
	F21	0.75	60.50	380.33	MWD	
	F22	0.75	62.50	387.83	MWD	
	F23	0.75	64.50	395.33	MWD	
	F24	0.75	66.50	402.83	MWD	
	F25	0.75	68.50	410.33	MWD	

**Summary/Remarks**  
 Prepare and stid rig to LKU-B27(BAC) - RAJ drilling equipment - NU flow riser - MAJ 12 1/4" BHA - Drill 12 1/4" hole  
 00:00 - 06:00 hr operation  
 06:00 - 06:00 hrs Continuous drilling 12 1/4" hole from 411 m to 821 m.  
 Remark - Number of observation cards = 8

Time Log	Start Time	End Time	Comment
14:00	15:00	16:00	Prepare to add rig. Stid rig from LKU-B26 (BAB) to LKU-B27 (BAC) - 3 m shodding.
16:00	16:45	17:30	Install flow riser. Install mouse hole. --- Rig accept at 16:00 hrs, 25 April 2008. Total rig shodding time = 0.08 day (2 hrs) ...
20:00	21:30	22:00	Drilling 12-1/4" hole from surface to 411 m @ 97.4 m/hr. BHC = 39.8 days @ 398 mMDI 384 mVD. Dump sand trap @ 183 m (35% sand), 366 m (32% sand). Slurry MDS = 10-12 lbs, 3500 lpm, 1700 psi, 90 rpm, torque = 6-9 mt-lbs. Rotate MDS = 12-14 lbs, 3500 lpm, 1700 psi, 90 rpm, torque = 148 mhr. Slid: 228/153 hrs - Avg. ROP = 148 m/hr. Rotate: 163.5 mt 0.67 hrs - Avg. ROP = 247.8 m/hr.

Operation Summary	Drill 12 1/4" hole to TD - Back ream out of hole - Run and cement 9 5/8" casing
Well status at 6:00 am: Drill 12 1/4" hole	
Planned Operation: Drill 12 1/4" hole to TD - Back ream out of hole - Run and cement 9 5/8" casing	
Accidents: 194.00 days without Lost Time Accident (LTA) PTTEP	

Personnel	Company	City	Drill Date	Standby Boat
GWDC (Contracting)	HALLBURTON	6		
M.T. SERVICE		18		
PTTEP		5		
SCOMI (DWM)		15		
SUB-CONVEL		6		

Weather Conditions	Wave Period (Sec)	Wave Direction	Wind Speed (Knot)
Variable Load			
Weather Conditions			

Main Stock	Supply Item	Description	Unit	Receive	Used	Stock
	Diesel Fuel		m3	16.0	3.8	26.2



**DAILY MUD REPORT**

Fig Name	SUT Central	Date	29-Apr-08	Fluids Engineer	B.D.Kabral / Sahachanapol P.	Depth (m)	2578.0
Well Name & No		Report No.	5	Solid Control	Winal / Boonriab	Depth-TVD (m)	2037.9
Field	Plain 1B	Formation	Sand / Clay	Head Quarters	Bangkok	Bit Depth (m)	0.0
Block		Warehouse	Lan Krabue	Operator Rep	Mr. Sarit / Mr. Praisont	Spud Date	25-Apr-08
Offshore Area				Contractor Rep	Han Min Ju	How Section (ft)	8.374

Present Activity	RH 7" Casing	Surface	9.5#	109#	Hole Volume	101.74 m <sup>3</sup>
Bit Size (inch)		Production			Active pits	33.96 m <sup>3</sup>
Drill Pipe Size (inch)					Reserve	6.17 m <sup>3</sup>
Drill Collar (inch)					Sandtrap-Trip Tank-Surface lines	9.96 m <sup>3</sup>
#WOP					Total Volume	150.82 m <sup>3</sup>

Pump Size (inch)	5.75	Stk Length	12	Opposite DP in OH	0.00	meter/min
Pump Make		BOMCO-F1600		Opposite DC in OH	0.00	meter/min
Clear/Stroke (97%)		14.8590		Opposite DP in Cased Hole	0.00	meter/min
Strokes/Minute				Circulating Pressure		psi
m <sup>3</sup> / Minute	0.000			Bottoms Up Strokes	0	Bottoms Up Minutes
				Surface to surface Strokes	52	Cycle time Minutes

Sample From:	ACTIVE	P	S	PRODUCT	UNIT SIZE	STOCK	REC'D	USED	BACK'D	BAL	COST
Time Sample Taken	03:15			DRILL GEL	50 kg/box	100				100	
Sample Temperature	53	O	C	FRITRO PAC R.	25 kg/box						
Depth	2578	O	H	XCEED	25 kg/box	37				37	
Weight	1.255	H	L	GUAR GUM	25 kg/box						
Funnel Viscosity	54	L	U	KOL (1 MT/68)	1 MT	4				4	
Plastic Viscosity	19	F	M	KOL (60 kg/box)	60 kg/box						
Yield Point	11	O	B	Calcium Chloride	25 kg/box	120				120	
Gel Strength (10sec/10min)	13/23	R	E	DRILL CARB M (25 kg)	25 kg/box						
BHT-HP (500 psi, 121°C)	1.8			DRILL CARB F (25 kg)	25 kg/box						
HP-HT Core Thickness	2	S	G	LIME	25 kg/box	160				160	
Electrical Stability (ESV)	>600	L	E	CONF GEL	25 kg/box	101				101	
Iron	2.0	B	R	CONF GEL HT	25 kg/box						
AgNO3	3.40			CONF MUL P	208 kg/box	15				15	
Excess Line	2.50	W	W	CONF MUL S	208 kg/box						
CaCO3	23.7	I	I	CONF TROL F	208 kg/box	2				2	
Water Phase Chlorides	184.031	R	R	CONF TROL	25 kg/box	80				80	
Sand Content	0	E	E	CONF TROL HT	25 kg/box						
Water Content	17.1	L	L	CONF TROL XHT	25 kg/box	42				42	
Oil Content	66.7	I	I	CONF MOO	208 kg/box	5				5	
Unconnected Solid Content	16.2	N	N	DRILL CARB F (BB)	1 MT	7				7	
Connected Solid Content	14.9	E	E	DRILL CARB M (BB)	1 MT	8				8	
Connected Water content	18.4			SCOM ESCALD 210	GLUE Meter	129.41				129.41	
Oil Water Ratio	80/20	L	L	DRILL BAR	1.5 MT	20				20	
Water Activity (Aw)	0.776	O	O	DRILL CARB C (BB)	1 MT	5				5	
Solid Analysis		G	G								
High Gravity Solids	7.6	G	G								
High Gravity Solids	319.0	I	I								
Low Gravity Solids	7.3	N	N								
Low Gravity Solids	173.7	G	G								
G RPM READING	8-10										

Time	03:15	Hole Drilled (m <sup>3</sup> )	
600 RPM	49	Cuttings Discharged (MT)	
300 RPM	30	Bartite Discharge (MT)	
200 RPM	22	SOC (% by weight)	
100 RPM	15	Synthetic discharge (MT)	
6 RPM	8	BIT DATA	
3 RPM	7	Made	
		Type	
		Jet	

Daily Eng Service		Daily Mud Chemicals Cost	
Previous Eng Service		Previous Mud Chemicals Cost	
CUM ENG SERVICE		Cumulative Mud Chemicals Cost	
		Debit well	
		Credit well with SDF	
		<b>TOTAL MUD COST</b>	

Shakers #1	200x170x170 MESH API PMD	Hours	Loss (m <sup>3</sup> )	Vol Addition		Losses	Daily	Cumulative (m <sup>3</sup> )
				Mud	Water			
Shakers #2	200x170x170 MESH API PMD	4.0	0.10		15.69	Shakers	0.20	38.80
Shakers #3	200x170x170 MESH API PMD	3.0	0.10		5.00	Centrifuge	1.00	15.70
Shakers #4	200x170x170 MESH API PMD			Base Oil	47.17	Evaporation	0.50	0.50
Centrifuges 1	LW335-1250N	1.0	1.00	Chemicals	11.11	Surface	0.50	0.50
Centrifuges 2	DC-7200			Bartite	5.35	Left in hole	0.00	0.00
				TOTAL	1.48	Formation lost	0.00	0.00
						Total	1.70	53.50

After POOH to 2050mTMD, Circulated prior to condition mud after added CaCO3; Continued to POOH prior to Schlumberger Wireline Logging; Skipped pipe; Continued to POOH; RAUp Schlumberger Wireline Logging; Ran PEX-AIT and XPT as per program; According to logging Average hole size is 8.82" and BHT is 101.1 °C; R/Dn Schlumberger Wireline Logging; RH 7" Casing; Casing Lowering to 62.7m; Continue to RH 7" Casing.

After POOH to 2050mTMD, increased CaCO3 concentration from 15 ppb to 30 ppb as per instruction while circulation before POOH; Prepared Slug Mud; Ran Centrifuge to cut-down MW to 1.25 SG; Mobilized 15 m3 Base Oil from SCOM yard to location.

**DAILY MUD REPORT**

Rig Name	SUT Central	Date	28-Apr-08	Fluids Engineer	B.D.Kabiraj / Sahadhanapol P.	Depth (m)	2578.0
Well Name & No		Report No.	4	Solid Control	Winal / Boonrab	Depth TVD (m)	2037.0
Field		Formation	Sand / Clay	Head Quarters	Bangkok	Bit Depth (m)	1930.0
Block	Plain IB	Warehouse	Lan Krabue	Operator Rep	Mr. Saril / Mr. Prasont	Spud Date	25-Apr-04
Offshore Area				Contractor Rep	Han Min Jiu	Hole Section (in)	8 3/4

Present Activity	POOH for Wireline	Surface	9.56	1038	Hole Volume	94.91 m³
Bit Size (inch)	8 3/4	Production			Active pits	35.56 m³
Drill Pipe Size (inch)	5				Reserve	7.92 m³
Drill Collar (inch)	6 1/2				Sandtrap+Trip Tank+Surface lines	12.65 m³
HWDP	5				Total Volume	151.04 m³

Pump Size (inch)	5.75	Stk Length	12	Opposite DP in OH	0.00	meter/min
Pump Make	BOMCO-F1600			Opposite DC in OH	0.00	meter/min
Flow Stroke (97%)				Opposite DP in Cased Hole	0.00	meter/min
Strokes/Minute				Circulating Pressure		psi
M³ / Minute	0.000			Bottoms Up Strokes	5927	Bottoms Up Minutes
				Surface to surface Strokes	7137	Cycle time Minutes

Sample From:	ACTIVE	ACTIVE	ACTIVE	PRODUCT	UNIT SIZE	STOCK	RECD	USED	BACK'D	BAL	COST
Time Sample Taken 24 hrs	05:50	13:30	17:45	DRILL GEL	50 kg/box	100				100	
Sample Temperature deg C	61	62	62	HYDRO PAC R	25 kg/box						
Depth metre	2127	2491	2578	XCEED	25 kg/box	37				37	
Weight S.G	1.25	1.25	1.25	GUAR-GUM	25 kg/box						
Funnel Viscosity sec/st	53	52	50	KCL (1 MT/BB)	1 MT	4				4	
Plastic Viscosity cps	18	18	19	KCL (50 kg/box)	50 kg/box						
Yield Point lb/100 sq.ft	12	13	11	Calcium Chloride	25 kg/box	180		60		120	
Gel Strength (10sec/10min) cps	14/25	15/26	13/23	DRILL CARB.M (25 kg)	25 kg/box						
HT-HP (500 psi, 121°C) ml	1.8	1.8	1.8	DRILL CARB.F (25 kg)	25 kg/box						
HT-HP Cake Thickness 32nd in.	2	2	2	LIME	25 kg/box	200		40		160	
Electrical Stability (ESV) Volt	736	762	769	CONFI GEL	25 kg/box	106		5		101	
Pom ml	2.2	2.5	2.0	CONFI GEL HT	25 kg/box						
AqNo3 ml	3.45	3.45	3.40	CONFI MUL P	208 kg/drm	20		5		15	
Excess Lime ppb	2.86	3.25	2.60	CONFI MUL S	208 kg/drm						
CaCO2 % by wt	24.0	24.1	23.8	CONFI TROL F	208 kg/drm	4		2		2	
Water Phase Chlorides mg/ltr	186,905	187,708	184,623	CONFI TROL	25 kg/box	140		60		80	
Sand Content % by Vol	tr	tr	tr	CONFI TROL HT	25 kg/box						
Water Content % by Vol	17.1	17.0	17.1	CONFI TROL XHT	25 kg/box	42				42	
Oil Content % by Vol	66.9	67.1	67.0	CONFI MOD	208 kg/drm	5				5	
Uncorrected Solid Content % by Vol	16.0	15.9	16.0	DRILL CARB.F (BB)	1 MT	9		2		7	
Corrected Solid Content % by Vol	14.8	14.8	14.8	DRILL CARB.M (BB)	1 MT	9		1		8	
Corrected Water content % by Vol	18	18.1	18.3	SOMMEGCAID.110	Cubic Meter	148.86		18.95		129.91	
Oil Water Ratio	80/20	80/20	80/20	DRILL BAR	1.5 MT	29		9		20	
Water Activity (Aw) Fraction	0.769	0.768	0.774	DRILL CARB.C (BB)	1 MT	5				5	
Solid Analysis				0-	1 ml						
High Gravity Solids % by Vol	7.7	7.8	7.8								
High Gravity Solids kg/m³	323.2	327.3	327.3								
Low Gravity Solids % by Vol	7.1	7.0	7.0								
Low Gravity Solids kg/m³	168.9	166.5	166.5								
6 RPM READING	8-10	9	9	8							

Time	05:50	13:30	17:45	Hole Drilled (m3)	31.08
600 RPM	48	49	49	Cuttings Discharged (MT)	81.8
300 RPM	30	31	30	Barite Discharge (MT)	
200 RPM	23	23	22	SOC (% by weight)	
100 RPM	18	16	15	Synthetic discharge (MT)	
6 RPM	9	9	8	BIT DATA	
3 RPM	8	8	7	Made	Security DBS
				Type	FH3461Z
				Jet	4 X 16

SOLID CONTROL EQUIPMENT INFORMATION				Vol Addition	Daily (M³)	Cumulative (M³)	Losses	Daily	Cumulative (M³)
Shakers #1	200x170x170 MESH API PMD	18.5	6.40	Mud	2.00	5.00	Shakers	18.20	36.60
Shakers #2	200x170x170 MESH API PMD	18.5	6.40	Base Oil	18.95	47.17	Centrifuge	10.50	14.70
Shakers #3	200x170x170 MESH API PMD	18.5	6.40	Chemicals	4.54	9.63	Evaporation	0.50	0.50
Shakers #4				Barite	3.21	5.35	Surface		0.00
Centrifuges 1	1W355-1250N	3.0	1.50	TOTAL	28.70	67.15	Left in hole		0.00
Centrifuges 2	DE-7200	9.0	9.00				Formation lost		0.00
							Total	30.20	51.80

Continued to Drill and slide 8 3/4" hole section to 2578mTMD / 2037.9mTVD; Circulated Hole Clean; POOH 5 stands, slugged pipe; Continued to POOH prior for Schlumberger Wireline Logging; Continued to POOH to 1930m at the report time.

Added chemical to maintain active mud properties; Ran centrifuge to remove LGS after passed LYOM and added barite to control MW in active system; Maintained 15 ppb CaCO3 (F-M, 50:50) before entering LKJ. K formation as per plan; 7% of LGS was came from the maintaining of CaCO3 concentration in mud system; Prepared 8kg Mud.

Daily Mud Chemicals Cost	
Previous Mud Chemicals Cost	
Cumulative Mud Chemicals Cost	
Debit well	
Credit well with SDF	
<b>TOTAL MUD COST</b>	

Daily Eng Service	
Previous Eng Service	
CUM ENG SERVICE	

DAILY MUD REPORT

Rig Name	SUT Central	Date	27-Apr-08	Fluids Engineer	B.D.Kabiraj / Sahadhanapol P.	Depth (m)	1787.0
Well Name & No	SUT Central	Report No.	3	Solid Control	Winal / Boonlab	Depth-IVD (m)	1423.0
Field	Plain 1B	Formation	Sand / Clay	Head Quarters	Bangkok	BIT Depth (m)	1787.0
Block	Plain 1B	Warehouse	Lan Krabue	Operator Rep	Mr. Sani / Mr. Prasont	Spud Date	25-Apr-08
Offshore Area				Contractor Rep	Han Min Ju	Hole Section (in)	8 3/4
Present Activity	Drill 8 3/4" Hole Section	Surface	9.58	1096	Hole Volume		64.63 m <sup>3</sup>
Bit Size (inch)	8 3/4	Production			Active pits		40.52 m <sup>3</sup>
Drill Pipe Size (inch)	5				Reserve		38.39 m <sup>3</sup>
Drill Collar (inch)	6 1/2				Sandtrap+ Trip Tank + Surface lines		9.00 m <sup>3</sup>
HWD <sup>2</sup>	5				Total Volume		152.54 m <sup>3</sup>
Pump Size (inch)	5.75	Stk Length	12	Opposite DP in OH	84.17		meter/min
Pump Make	BOMCO-F1600			Opposite DC in OH	126.48		meter/min
Liter/Stroke (97%)	14.850			Opposite DP in Cased Hole	79.51		meter/min
Strokes/Minute	148			Circulating Pressure	2592		psi
M <sup>3</sup> / Minute	2.199			Bottoms Up Strokes	3917	Bottoms Up Minutes	26.47
				Surface to surface Strokes	5034	Cycle time Minutes	34.01

Sample From:	Time Sample Taken	24 hrs	ACTIVE	ACTIVE	PRODUCT	UNIT SIZE	STOCK	RECD	USED	BACK'D	BAL	COST
Sample Temperature	deg C		R	48	58	DRILL GEL	50 kg/sx	100			100	
Depth	metre	1-25	T	1198	1731	HYDRO PAC R	25 kg/sx				37	
Weight	S.G	55-70	H	1.25	1.25	GUAR GUM	25 kg/sx					
Funnel Viscosity	sec/st	15-25		49	53	KOL (1 MT/BB)	1 MT	4			4	
Plastic Viscosity	cps	10-20		17	18	KOL (50 kg/sx)	50 kg/sx					
Yield Point	lb/100 sq.ft	20-30		12	13	Calcium Chloride	25 kg/sx	280		100	180	
Gel Strength (10sec/10min)	cps	2-3	3/4"	12/20	13/24	DRILL CARB F (25 kg)	25 kg/sx					
HT-HP (500 psi, 121°C)	mi			2.0	2.0	DRILL CARB F (25 kg)	25 kg/sx					
HT-HP Cake Thickness	32nd in.			8	2	LINE	25 kg/sx	240		40	200	
Electrical Stability (ESV)	Volt	>600		2	758	CONF GEL HT	25 kg/sx	80	40	14	106	
Pom	mi		B	2.4	2.0	CONF GEL HT	25 kg/sx					
AgNO3	mi		H	3.32	3.40	CONF MUL P	208 m/sx	28		8	20	
Excess Lime	ppb		A	3.12	2.80	CONF MUL S	208 m/sx					
CaCO2	% by Wt.	20-22	T	23.0	23.2	CONF MUL S	208 m/sx			2	4	
Water Phase Chlorides	mg/l		O	177,394	179,424	CONF TROK F	25 kg/sx	160		20	140	
Sand Content	% by Vol	<0.5%		17.4	17.5	CONF TROK HT	25 kg/sx					
Water Content	% by Vol		D	66.8	66.5	CONF TROK HT	25 kg/sx	42			42	
Oil Content	% by Vol		R	15.8	16.0	CONF MOD	208 m/sx	3	4	2	5	
Unconnected Solid Content	% by Vol		I	14.6	14.8	DRILL CARB F (BB)	1 MT	4	5	2	7	
Connected Solid Content	% by Vol		L	18.6	18.7	DRILL CARB M (BB)	1 MT	2	9	2	9	
Connected Water content	% by Vol		L	79/21	79/21	SCOM ESQMD 110	Cubic Meter	191.58	145	28.22	148.36	
Oil Water Ratio		80/20	L	0.793	0.784	DRILL BAR	1.5 MT	31	4	6	29	
Water Activity (Aw)	Fraction			8.0	7.7	DRILL BAR O (BB)	1 MT	5			5	
Solid Anhydrite	% by Vol			335.7	323.2							
High Gravity Solids	g/gal			6.7	7.1							
Low Gravity Solids	% by Vol	<8		159.4	168.9							
Low Gravity Solids	g/gal		R-10	8	9							

Time#	300.00	14:00	23:00	Hole Drilled (m <sup>3</sup> )	27.05
600 RPM	46	49	Cuttings Discharged (MT)	70.33	
300 RPM	29	31	Barite Discharge (MT)		
200 RPM	19	23	SOC (% by weight)		
100 RPM	14	17	Synthetic discharge (MT)		
6 RPM	8	9	BIT DATA		
3 RPM	7	8	Security DBS		
			FM3461Z		
			Jet	4 X 16	

SOLID CONTROL EQUIPMENT INFORMATION			Vol Addition	Daily (M <sup>3</sup> )	Cumulative (M <sup>3</sup> )	Losses	Daily	Cumulative (M <sup>3</sup> )
Shakers #1	200x170x170 MESH API PMD	14.5	5.80	Water	3.00	Shakers	17.40	17.40
Shakers #2	200x170x170 MESH API PMD	14.5	5.80	Base Oil	28.22	Centrifuge	4.20	4.20
Shakers #3	200x170x170 MESH API PMD	14.5	5.80	Chemicals	5.09	Evaporation		0.00
Shakers #4				Barite	2.14	Surface		0.00
Centrifuges 1	LW355-1250N			TOTAL	38.45	Left in hole		0.00
Centrifuges 2	DE-7200	3.0	4.20			Formation lost		0.00
						Total	21.80	21.80

Continued to RH 9.56" casing to 1096m; Circulated prior to Cementation; Down Cementation and displaced cement with 44.16 m<sup>3</sup> as per program; R/Down Dowell Cement Head; N/Up BOP and flow riser; BOP function test; MU 8 3/4" bit and BHA; RH 8 3/4" bit, BHA and DP prior to drill 8 3/4" hole section; Drilled and slide 8 3/4" hole section to 1787m at report time.

During cementation dumped 85.14 m<sup>3</sup> Bentonite Gel Mud; After finished cement job dumped and clean 47.86 m<sup>3</sup> Bentonite Gel Mud in 2B, 3A, 3B and Sand Trap; Today Received 59.51 m<sup>3</sup> OBMA from SCOMI Yard, total received 135.89 m<sup>3</sup>; Received 45 m<sup>3</sup> new shipment Base Oil at SCOMI Yard; Premixed 33.33 m<sup>3</sup> OGM and sheared; Maintain Mud properties by added chemical especially Rheology Modifier; Added 15 ppb of CaCO3 (F.M, 50:50) before entering LYOM formation as per plan;

Daily Mud Chemicals Cost	
Previous Mud Chemicals Cost	
Cumulative Mud Chemicals Cost	
Debit well	
Credit well with SDF	
<b>TOTAL MUD COST</b>	

**DAILY MUD REPORT**

Rig Name	SUT Central	Date	26-Apr-08	Fluids Engineer	B.D.Kabiraj / Sahadhanapol P.	Depth (m)	1101.0
Well Name & No		Report No.	2	Solid Control	Winal / Boondab	Depth-TVD (m)	905.0
Field	Plain 1B	Formation	Sand / Clay	Head Quarters	Bangkok	Bit Depth (m)	0.0
Block		Warehouse	Len Krabue	Operator Rap	Mr. Sarit / Mr. Pratsont	Spud Date	25-Apr-08
Offshore Area				Contractor Rep	Han Min Ju	Hole Section (m)	12 1/4

Present Activity	RH 7" Casing	Surface		Hole Volume		85.14 m <sup>3</sup>
Bit Size (inch)		Production		Active pits		38.86 m <sup>3</sup>
Drill Pipe Size (inch)				Reserve		m <sup>3</sup>
Drill Collar (inch)				Sandtrap+Tng Tank+Surface lines		9.00 m <sup>3</sup>
RWDP				Total Volume		133.00 m <sup>3</sup>

Pump Size (inch)	5.75	Srk Length	12	Opposite DP in OH	0.00	meters/min
Pump Make		BOMCO-F1600		Opposite DC in OH	0.00	meters/min
Lines/Stroke (97%)		14.8590		Opposite DP in Cased Hole	0.00	meters/min
Strokes/Minute				Circulating Pressure		psi
MP / Minute	0.000			Bottoms Up Strokes	0	Bottoms Up Minutes
				Surface to surface Strokes	55	Cycle time Minutes

Sample From	ACTIVE	ACTIVE	PRODUCT	UNIT SIZE	STOCK	REC'D	USED	BACK'D	BAL	COST
Time Sample Taken	07:00	09:50	DRILL GEL	50 kg/bx	140		40		100	
Sample Temperature	41	43	HYDRO FAC R	25 kg/bx						
Depth	902.0	1100.0	XCE-EO	25 kg/bx	37				37	
Weight	1.12	1.14	GUAR (OBM)	25 kg/bx						
Funnel Viscosity	35	37	KCL (1MT/BB)	1 MT	4				4	
Plastic Viscosity	5	7	KCL (50 kg/bx)	50 kg/bx						
Yield Point	8	9	Calcium Chloride	25 kg/bx	280				280	
Gel Strength (10sec/10min)	7/15	8/18	DRILL CARB M (25 kg)	25 kg/bx						
HT-HP (500 psi/121°C)			DRILL CARB F (25 kg)	25 kg/bx						
HP-HT Cake Thickness			LBME	25 kg/bx	240				240	
Electrical Stability (ESV)			CONFRIGEL	25 kg/bx	80				80	
Ppm			CONFRIGEL HT	25 kg/bx						
AqH2O			CONFRIGEL P	208 kg/m <sup>3</sup>	26				26	
Excess Lime			CONFRIGEL S	208 kg/m <sup>3</sup>						
CaO2			CONFRIGEL F	208 kg/m <sup>3</sup>	6				6	
Water Phase Chlorides			CONFRIGEL HT	25 kg/bx	180				180	
Sand Content	0.70	0.50	CONFRIGEL HT	25 kg/bx						
Water Content	95.0	94.0	CONFRIGEL XHT	25 kg/bx	42				42	
Oil Content			CONFRIGEL	208 kg/m <sup>3</sup>	3				3	
Uncorrected Solid Content	5.0	6.0	DRILL CARB F (BB)	1 MT	6				6	
Corrected Solid Content			DRILL CARB M (BB)	1 MT	2				2	
Corrected Water content			SCOM ESCALD 110	Cubic/Meter	131.58				131.58	
Oil Water Ratio			DRILL BAR	1.5MT	31				31	
Water Activity (Aw)			DRILL CARB C (BB)	1 MT	5				5	
Solid Analysis				1 mt						
High Gravity Solids										
High Gravity Solids										
Low Gravity Solids										
Low Gravity Solids										
6 RPM READING										

Time	07:00	09:50	Hole Drilled (m <sup>3</sup> )		
600 RPM	18	23	Cuttings Discharged (MT)		
300 RPM	13	16	Barite Discharge (MT)		
200 RPM	10	13	SOC (% by weight)		
100 RPM	8	9	Synthetic discharge (MT)		
6 RPM	6	7	BIT DATA		
3 RPM	5	5	Made		
			Type		
			Jet		

SOLID CONTROL EQUIPMENT INFORMATION				Vol Addition	Daily (M <sup>3</sup> )	Cumulative (M <sup>3</sup> )	Losses	Daily	Cumulative (M <sup>3</sup> )
Shakers #1	200x170x170 MESH API PMD	Hours	Loss (M <sup>3</sup> )	Mud	76.18	76.18	Shakers	39.00	48.00
Shakers #2	200x170x170 MESH API PMD	24.0	15.00	Water	152.48	328.14	Centrifuge	16.00	17.50
Shakers #3	200x170x170 MESH API PMD	16.0	12.00	Base Oil	0.00	0.00	Evaporation	0.00	0.00
Shakers #4	200x170x170 MESH API PMD	16.0	12.00	Chemicals	1.33	2.00	Surface	111.64	129.64
Centrifuges 1	LW355-1250H			Barite	0.00	0.00	Left in hole	0.00	0.00
Centrifuges 2	DE-7200	16.0	16.00	TOTAL	153.81	328.14	Formation lost	0.00	0.00
							Total	166.64	195.14

Continued to Drilled and Slide to 1101mTMD / 905m TVD; Reamed Back while POOH; RH 7" Casing to 988m at report time.

Dumped the sandtrap at 499.3m (S/ 34%), 586.1m (S/ 30%), 729.8m (S/ 28%), 844.8m (S/ 30%), 960m (S/ 30%), 1074.8m (S/ 25%); During POOH dumped out Sand Trap at 929m (S/ 25%), 684m (S/ 20%), 469m (S/ 18%) and 237m (S/ 15%); Total Bentonite Gel Mud mixed today 153.81 m<sup>3</sup>; During 7" Casing Lowering, Bentonite Gel mud 54.64 m<sup>3</sup> was dumped from Pit-1, 2A and 3B and cleaned; Ran centrifuge to control MW and removed sand content; Premixed OBM in Pit-4A and 4B; Prepared used OBM at Pit-5 which received from the previous well for displace Cement; Received base oil from SCOM Yard 30 m<sup>3</sup> at Location; Base Oil and OBM chemical were used for premixed will be charge on the next report; All OBM and Base Oil volume in this report were not use for consideration.

DAILY MUD REPORT

Rig Name		Date		Fluide Engineer		Depth (m)	
SUT Central		25-Apr-08		B.D.Kabiraj / Sahadhanapal P.		411.4	
Well Name & No		Report No.		Solid Control		Depth-IVO (m)	
SUT Central		1		Winal / Boonriab		396.4	
Field		Formation		Head Quarters		Bit Depth (m)	
Plain IR		Sand / Clay		Bangkok		411.4	
Block		Warehouse		Operator Rep		Spud Date	
Plain IR		Lan Krabue		Mr. Sarit / Mr. Pralson		25-Apr-08	
Offshore Area		OPERATION		Contractor Rep		Hole Section (m)	
Plain IR		Casing		Han Min Ju		12.1/4	
Present Activity		Size (in)		Depth (m)		MUD VOLUME (m <sup>3</sup> )	
Drill 12 1/4" Hole Section		Surface		Hole Volume		29.34 m <sup>3</sup>	
Bit Size (inch)		Production		Active pits		107.49 m <sup>3</sup>	
12 1/4				Reserve		m <sup>3</sup>	
Drill Pipe Size (inch)				Sandtrap+Trip Tank+Surface lines		9.00 m <sup>3</sup>	
5				Total Volume		145.83 m <sup>3</sup>	
Drill Collar (inch)							
8							
FWOP							
5							
CIRCULATION DATA		ANNULAR VELOCITY (meter / sec)					
Pump Size (inch)		Sirk Length		Opposite DP in OH		55.81 meter/min	
5.75		12		Opposite DC in OH		81.09 meter/min	
Pump Make		BOHCO-F1600		Opposite DP in Cased Hole		54.73 meter/min	
L/Rev/Stroke (RPM)		14.8590		Circulating Pressure		1527 psi	
Strokes/Minute		238		Bottoms Up Strokes		1808	
M <sup>3</sup> /Minute		1.334		Surface to surface Strokes		2032	
		777.81 gpm				Bottoms Up Minutes 7.60	
						Cycle time Minutes 8.54	
MUD TYPE: BENTONITE GEL MUD		MATERIAL CONSUMPTION & COST					
Sample From:		Spec		ACTIVE		PRODUCT	
Time Sample Taken		R		R		23:30	
24 hrs		I		I		32	
Sample Temperature		G		G		361	
deg C		M		U		32	
Depth		O		P		4	
meters		V		N		6	
Weight		E		I		2/5	
S.G		D		N			
<1.15		F		T			
Funnel Viscosity		R		A			
sec/pt		O		L			
38-40		M		L			
Plastic Viscosity		L		FAL			
cps		K		E			
ALAP		U		E			
Yield Point		B		NAU			
lb/100 sq.ft		2		3.0			
>4							
Gel Strength (1 Base/10 min)							
cps							
E							
FT-HP (500 psi/12"PC)							
mi							
2nd in.							
HP-HT Cake Thickness							
Vol							
Electrical Stability (ESV)							
mi							
Pom							
mi							
AgH <sub>2</sub> O							
mi							
Excess Lime							
gpb							
CaCl <sub>2</sub>							
% by Vol.							
Water Phase Chlorides							
mg/lb							
% by Vol.							
Sand Content							
% by Vol.							
Water Content							
% by Vol.							
Oil Content							
% by Vol.							
Uncorrected Solid Content							
% by Vol.							
Corrected Solid Content							
% by Vol.							
Corrected Water content							
% by Vol.							
Oil Water Ratio							
Fraction							
(BAB)							
Water Activity (Aw)							
Solid Analysis							
High Gravity Solids							
% by Vol							
High Gravity Solids							
kg/m <sup>3</sup>							
Lower Gravity Solids							
% by Vol							
Lower Gravity Solids							
kg/m <sup>3</sup>							
6 RPM READING							
VG METER READING AT 45.5°C							
Time							
R							
23:30							
600 RPM							
14							
300 RPM							
10							
200 RPM							
8							
100 RPM							
6							
6 RPM							
4							
3 RPM							
4							
SYNTHETIC OIL CUTTINGS ANALYSIS							
Hole Drilled (m <sup>3</sup> )							
Cuttings Discharge (MT)							
Barite Discharge (MT)							
SOC (% by weight)							
Synthetic discharge (MT)							
BIT DATA							
Made							
Hyclog							
Type							
PCD DSX419S-E5							
Jet							
BX14							
DAILY ENG SERVICE							
Previous Eng Service							
CUM ENG SERVICE							
DAILY MUD COST							
DAILY MUD CHEMICALS COST							
PREVIOUS MUD CHEMICALS COST							
CUMULATIVE MUD CHEMICALS COST							
DEBIT WELL							
CREDIT WELL WITH SOF							
TOTAL MUD COST							
SOLID CONTROL EQUIPMENT INFORMATION							
Size							
Hours							
Log (M <sup>3</sup> )							
Vol Addition							
Mud							
Daily (M <sup>3</sup> )							
Cumulative (M <sup>3</sup> )							
Losses							
Daily							
Cumulative (M <sup>3</sup> )							
Shakers #1							
200x170x170 MESH API PMD							
4.0							
3.00							
Shakers #2							
200x170x170 MESH API PMD							
4.0							
3.00							
Shakers #3							
200x170x170 MESH API PMD							
4.0							
3.00							
Shakers #4							
Centrifuges 1							
LW355-1250N							
1.5							
1.50							
Centrifuges 2							
DE-7200							
Operation Comment							
Rig was studded from LKU-826 (BAB) at 14:00 hrs; N/HP Riser and install flowline; M/Up 12 1/4" bit and BHA; RH for drill 12 1/4" hole section; Started Spud at 20:00 hrs, Drilled and side to 411.4m at the report time.							
Drilling Fluid Comment							
Engineering service cost is charged for half day in this report; Received OBM from LKU-826 (BAB) 76.18 m <sup>3</sup> and keep in Pit-4A and Pit-5; Filled up all active Pits with water; Mixed Bentonite Gel in Pit-3B and slowly feed into mud system; Dumped the sandtrap at 183m (sand 35%), 355.6m (32%).							



8.75 " INTERVAL										SUT Central Plain 2B							
OPERATOR :		SPUD : 28 Apr 07		DATE : 04 May 07		DEPTH TVD/MD m.		2,211		2,643							
WELL NAME :		AREA : Sirikit Oilfield		RIG : GW80		MUD ENGINEER : Preecha Ruangrak / Chanin Wongdontri											
OPERATOR REP : Aung Kyaw/Yutthaphum D.				CONTRACTOR: GWDC				CONTRACTOR REP : Han Mln Jul									
MUD TYPE : Versaclean OB		MUD PROPERTIES				MUD PROPERTY SPEC.											
SAMPLE FROM				Weight 1.20 sg.		HTHP FL < 3.0 ml		OWR 75/25 - 80/20		YP 10-20							
TIME SAMPLE TAKEN		KCl		ES V. 600		Excess Lime 1-2		CaCl2% 20-22		6 RPM 8-10							
PIT/FLOWLINE TEMP. °C		/CaCl2		MATERIALS USAGE & COSTS													
DEPTH MD (m)				MATERIAL		INITIAL		RECVD.		RETURN		USED		BAL.		COST	
DEPTH TVD (m)				BARITE		1.5 ml / sx		42						42			
MUD WEIGHT (sg)		1.14		BENTONITE (M-I)		100 lb / sx		111						111			
FUNNEL VISCOSITY (sec/qt)				CAL CARB (C)		50 kg / sx		174						174			
PLASTIC VISCOSITY (cp)		B		CAL CARB (F)		25 kg / sx											
YIELD POINT (lb/100 cu. ft)		R		CAL CARB (M)		50 kg / sx		152						152			
GELS (lb/100 ft <sup>3</sup> ) 10/10/30		I		CAL CHLORIDE		25 kg / sx		190						190			
ES (volts)		N		DUO-VIS		25 kg / sx		10						10			
OIL WATER RATIO		E		ECOTROL RD		25 kg / sx		17						17			
HTHP (cm <sup>2</sup> /30min) @ 250° F				ESCAID 110		1 m3 bk		88.54		0.01				88.55			
CAKE (32nd in. API/HTHP)		I		HRP		55 gal / dr		5						5			
RET SOLIDS (%vol)		N		LIME		25 kg / sx		135						135			
RETORT OIL (%vol)				NOVATEC F		55 gal / dr		5						5			
RETORT WATER (%vol)		H		KCl		25 kg / sx		75						75			
CORRECTED SOLIDS (%vol)		O		KCl (BB)		1 ml / sx		20.00				2.00		18.00		\$910.00	
% LGS		L		OIL BASE MUD		1 m3 bk											
% BAR		E		VERSACOAT IC		55 gal / dr		10						10			
LGS ppb				VERSAGEL HT		25 kg / sx		142		6				136			
BAR (ppb)				VERSAMOD		55 gal / dr		7						7			
				VERSAMUL IC		55 gal / dr		13						13			
ALKALINITY (Pom)				VERSATROL		50 lb / sx		107						107			
EXCESS LIME (lb/bbl)				DAILY ENGR. SERVICE				\$1,300		DAILY CHEM. COST				\$910.00			
CHLORIDE (mg/l)				PREVIOUS ENGR. TOTAL				\$7,800		PREVIOUS CHEM. TOTAL				\$63,378.67			
CACL2 (%)				CUM. ENGR. SERVICE				\$9,100		CUM. CHEM. TOTAL				\$84,288.67			
SAND CONTENT (% vol)				COMMENTS / RECOMMENDATIONS													
AVERAGE SOLIDS, eppr				Ran Gammaray and perforated 6 runs. RIH perforation gun for 7th run at report time.													
RHEOLOGY 600/300				Made up additional 1.14 KCl brine. Centrifuge cutback loss = 21 m3. Saved total of 159.6 m3 OBM.													
65° 200/100																	
6/3																	
OOC %																	
SOLIDS CONTROL EQUIPMENT				HYDRAULICS		MUD VOLUMES		m3		MUD VOL ACCOUNTING (m3)							
SIZE		HOURS		U/F		Ann Vel (m/min)		ANNULAR VOLUME		STARTING VOL		180.6					
Centrifuge #1		152		20.0		DP/CSG		STRING CAPACITY		OBM RECD FROM PREV. WELL							
Centrifuge #2		552S		20.0		DP/OH		ACTIVE PITS		OIL ADDED							
Derrick Shaker 1		210/210/210				HW/OH		TOTAL CIRC. VOLUME		WATER ADDED							
Derrick Shaker 2		210/210/210				DC/OH		RESERVE OBM		CHEMICAL ADDED							
Derrick Shaker 3		210/210/210				ECD		TOTAL VOLUME		TOTAL VOLUME BUILT							
								159.6		FORMATION							
						SCREENS USED		CASING DATA		SHAKERS							
								9.625-in @1063 m (1017 TVD)		DUMPED / SOLIDS							
								7-in @2601 m (2183 TVD)		CENTRIFUGES		21.0					
								SHOE TEST (EMW)		TRIPS							
BIT DATA		STRING DATA				PUMP DATA				EVAPORATION							
TYPE :		LENGTH		OD		ID		PUMP SIZE 5.75x12 in		spm		gpm		LEFT BEHIND CASING			
SIZE: 8 3/4		CSG						OUTPUT@97% 0.093 bps				bbl/min		TOTAL LOSSES 21.0			
JETS: -		DP1						PUMP PRESSURE				psi		OBM T/F TO NEXT WELL			
		HWDP						SURF. TO BIT				min		ENDING VOLUME 159.6			
		DC						BOTTOMS UP TIME/STK						CUM BUILT SECTION 84.2			
TFA		Liner						TOTAL CIRC. TIME/STK						CUM LOST SECTION 93.1			

8.75" INTERVAL										SUT Central Plain 2B			
OPERATOR : I		SPUD : 28 Apr 07		DATE : 03 May 07		DEPTH TVD/MD m.		2,211		2,643			
WELL NAME : I		AREA : Sirikit Oilfield		RIG : GW80		MUD ENGINEER : Slobodan Lazic / Chanin Wongdontri							
OPERATOR REP : Aung Kyaw/Yuthaphum D.				CONTRACTOR: GWDC		CONTRACTOR REP : Han Min Jul							
MUD TYPE : Versaclean OB		MUD PROPERTIES				MUD PROPERTY SPEC.							
SAMPLE FROM	Active				Weight	1.20 sg	HTHP FL	< 3.0 ml	OWR	75/25 - 80/20	YP	10-20	
TIME SAMPLE TAKEN	14:30		KCl		ES V	600	Excess Lime	1-2	CaCl2%	20-22	6 RPM	8-10	
PIT/FLOWLINE TEMP. °C	55		/CaCl2		MATERIALS USAGE & COSTS								
DEPTH MD (m)	2,643				MATERIAL	INITIAL	RECVD.	RETURN	USED	BAL.	COST		
DEPTH TVD (m)	2,211				BARITE	1.5 mt / sx	46		4	42	\$667.00		
MUD WEIGHT (sg)	1.32	1.14			BENTONITE (M-I)	100 lb / sx	111			111			
FUNNEL VISCOSITY (sec/qt)	54				CAL CARB (C)	50 kg / sx	174			174			
PLASTIC VISCOSITY (cp)	17	B			CAL CARB (F)	25 kg / sx							
YIELD POINT (lb/100 cu. ft)	13	R			CAL CARB (M)	50 kg / sx	152			152			
GELS (lb/100 ft <sup>3</sup> ) 10/10/30	17/28/31	I			CAL CHLORIDE	25 kg / sx	190			190			
ES (volts)	676	N			DUO-VIS	25 kg / sx	12		2	10	\$530.00		
OIL WATER RATIO	81/19	E			ECOTROL RD	25 kg / sx	17			17			
HTHP (cm <sup>2</sup> /30min) @ 250° F	2.0				ESCAID 110	1 m3 bk	80.14		1.80	88.54	\$1,136.40		
CAKE (32nd in. API/HTHP)	2	I			HRP	55 gal / dr	5			5			
R <sub>500</sub> T SOLIDS (%vol)	17.0	N			LIME	25 kg / sx	135			135			
RETURN OIL (%vol)	67.0				NOVATEC F	55 gal / dr	5			5			
RETORT WATER (%vol)	16.0	H			KCl	25 kg / sx	151		76	75	\$1,197.00		
CORRECTED SOLIDS (%vol)	15.9	O			KCl (BB)	1 mt / sx	20.00			20.00			
% LGS	4.2	L			OIL BASE MUD	1 m3 bk							
% BAR	11.7	E			VERSACOAT IC	55 gal / dr	10			10			
LGS ppb	37.9				VERSAGEL HT	25 kg / sx	142			142			
BAR (ppb)	172.0				VERSAMOD	55 gal / dr	7			7			
					VERSAMUL IC	55 gal / dr	13			13			
					VERSATROL	50 lb / sx	107			107			
ALKALINITY (Ppm)	1.8												
EXCESS LIME (lb/bbl)	2.3												
CHLORIDE (mg/l)	29,500				DAILY ENGR. SERVICE	\$1,300	DAILY CHEM. COST			\$3,530.40			
CaCl2 (%)	22.4				PREVIOUS ENGR. TOTAL	\$6,500	PREVIOUS CHEM. TOTAL			\$59,848.27			
					CUM. ENGR. SERVICE	\$7,800	CUM. CHEM. TOTAL			\$63,378.67			
SAND CONTENT (% vol)	tr				COMMENTS / RECOMMENDATIONS								
AVERAGE SOLIDS, spgr	3.8				Ran XPT. Logging indicated 8.73" avg hole size, 98.9 C degree Bottom hole temperature. Ran 7" csg to 2601 m. Circ. csg. Cemented as per program. Dumped 1.6 m3 OBM contaminated spacer. Dumped 2.9 m3 pure spacer (with max 10% trace of cement). No loss to formation from cement job. L/D 5"DP.								
RHEOLOGY 600/300	47/30				Used 75m3 1.14 SG KCl/CaCl2 brine from previous well. BJ used 4 BB Barite, 2 sx Duovis, 1.6m3 base oil, 45sxs KCl. Inventory correction: charged off 31 sxs KCl.								
65° C. 200/100	23/18												
6/3	10/9												
OOC %													
SOLIDS CONTROL EQUIPMENT				HYDRAULICS		MUD VOLUMES		m3		MUD VOL ACCOUNTING (m3)			
	SIZE	HOURS	U/F	Ann Vel	(m/mIn)	ANNULAR VOLUME		STARTING VOL		195.8			
Centrifuge #1	152			DP/CSG		STRING CAPACITY		OBM RECD FROM PREV. WELL					
Centrifuge #2	552S			DP/OH		ACTIVE PITS		OIL ADDED					
Derrick Shaker 1	210/210/210			HW/OH		TOTAL CIRC. VOLUME		WATER ADDED					
Derrick Shaker 2	210/210/210			DC/OH		RESERVE OBM	180.6	CHEMICAL ADDED					
Derrick Shaker 3	210/210/210			ECD		TOTAL VOLUME	180.6	TOTAL VOLUME BUILT					
								FORMATION					
						SCREENS USED		SHAKERS					
								CASING DATA					
								9.625-in @1063 m (1017 TVD)		PIT CLEANING /SOLIDS	13.6		
								7-in @2601 m (2183 TVD)		CENTRIFUGES			
						SHOE TEST (EMW)		TRIPS					
BIT DATA		STRING DATA			PUMP DATA			DUMP					
TYPE:		LENGTH	OD	ID	PUMP SIZE	5.75x12 in	spm	gpm	LEFT BEHIND CASING				
SIZE:	8 3/4	CSG			OUTPUT@97%	0.093 bps		bbl/min	TOTAL LOSSES				
JETS:		DP1			PUMP PRESSURE			psi	OBM T/F TO NEXT WELL				
		HWDP			SURF. TO BIT			min	ENDING VOLUME				
		DC			BOTTOMS UP TIME/STK.				CUM BUILT SECTION				
TFA	Liner				TOTAL CIRC. TIME/STK.				CUM LOST SECTION				
									72.1				

8.75 " INTERVAL										SUT Central Plain 2B			
OPERATOR :		SPUD : 28 Apr 07		DATE : 02 May 07		DEPTH TVD/MD m.		2,211		2,643			
WELL NAME :		AREA : Sirikit Oilfield		RIG : GW80		MUD ENGINEER : Slobodan Lazic / Chanin Wongdontri							
OPERATOR REP : Aung Kyaw/Yutthaphum D.				CONTRACTOR: GWDC				CONTRACTOR REP : Han Min Jui					
MUD TYPE : Versaclean OB		MUD PROPERTIES				MUD PROPERTY SPEC.							
SAMPLE FROM	Active	Flowline	Active	Weight	1.20 sg	HHP FL	< 3.0 ml	OWR	75/25 - 80/20	YP	10-20		
TIME SAMPLE TAKEN	04:00	09:00	12:30	ES V	600	Excess Lime	1-2	CaCl2%	20-22	6 RPM	8-10		
PIT/FLOWLINE TEMP. °C	66	67	68	MATERIALS USAGE & COSTS									
DEPTH MD (m)	2,310	2,575	2,643	MATERIAL		INITIAL	RECVD.	RETURN	USED	BAL.	COST		
DEPTH TVD (m)	1,884	2,195	2,211	BARITE	1.5 mt / sx	64			18	46	\$3,001.50		
MUD WEIGHT (sg)	1.28	1.30	1.32	BENTONITE (M-I)	100 lb / sx	111				111			
FUNNEL VISCOSITY (sec/qt)	60	57	54	CAL CARB (C)	50 kg / sx	180			6	174	\$58.50		
PLASTIC VISCOSITY (cp)	16	16	17	CAL CARB (F)	25 kg / sx								
YIELD POINT (lb/100 cu. ft)	18	16	13	CAL CARB (M)	50 kg / sx	163			11	152	\$107.25		
GELS (lb/100 ft <sup>3</sup> ) 10/10/30	18/29/33	17/28/32	17/28/31	CAL CHLORIDE	25 kg / sx	190				190			
ES (volts)	724	840	827	DUO-VIS	25 kg / sx	12				12			
OIL WATER RATIO	80/20	80/20	81/19	ECOTROL RD	25 kg / sx	17				17			
HHP (cm <sup>3</sup> /30min) @ 250° F	2.0	2.0	2.0	ESCAID 110	1 m3 bk	97.64			7.5	90.14	\$5,326.88		
CAKE (32nd in. API/HHP)	2	2	2	HRP	55 gal / dr	5				5			
RT SOLIDS (%vol)	16.0	16.5	17.0	LIME	25 kg / sx	135				135			
RETORT OIL (%vol)	67.5	67.5	67.0	NOVATEC F	55 gal / dr	5				5			
RETORT WATER (%vol)	16.5	16.0	16.0	KCI	25 kg / sx	151				151			
CORRECTED SOLIDS (%vol)	14.9	15.3	15.9	KCI (BB)	1 mt / sx	20.00				20.00			
% LGS	4.5	4.2	4.1	OIL BASE MUD	1 m3 bk								
% BAR	10.4	11.1	11.8	VERSACOAT IC	55 gal / dr	10				10			
LGS ppb	41.0	38.4	37.3	VERSAGEL HT	25 kg / sx	142				142			
BAR (ppb)	152.7	163.5	172.9	VERSAMOD	55 gal / dr	7				7			
				VERSAMUL IC	55 gal / dr	13				13			
ALKALINITY (Ppm)	1.8	1.7	1.8	VERSATROL	50 lb / sx	107				107			
EXCESS LIME (lb/bbl)	2.3	2.2	2.3										
CHLORIDE (mg/l)	29,000	30,000	29,500	DAILY ENGR. SERVICE	\$1,300	DAILY CHEM. COST				\$8,494.13			
CACL2 (%)	21.6	22.7	22.4	PREVIOUS ENGR. TOTAL	\$5,200	PREVIOUS CHEM. TOTAL				\$51,354.14			
				CUM. ENGR. SERVICE	\$6,500	CUM. CHEM. TOTAL				\$59,848.27			
SAND CONTENT (% vol)	tr	tr	tr	COMMENTS / RECOMMENDATIONS									
AVERAGE SOLIDS, spgr	3.7	3.8	3.8	Drilled to TD at 2643mMD / 2211mVD. Carbide indicated avr. hole size 8.9" and 9.31" Carbide peak. Circulate 5 btms/up prior to poh. POH 5 stands and pumped slug. POOH. R/U Schlumberger wireline log. Ran PEX without problem at report time.									
RHEOLOGY 600/300	50/34	48/32	47/30	Transferred premix to active to maintain volume and properties. Maintained CaCO3 concentration in active system. After observing trace of caving of shakers increased MW from 1.28 sg to 1.3 at 2575m and then at TD to 1.32 sg in system prior to poh. Reduced hology prior to POH. Mixed slug. Ran centrifuge to control LGS and MW in system. Charged additional 5sx CaCO3 (M) for inventory correction. New base oil price since 1st May 07: US\$710.25/M3									
65° 200/100	25/19	24/18	23/18										
6/3	12/11	11/10	10/9										
OOC %													
SOLIDS CONTROL EQUIPMENT			HYDRAULICS		MUD VOLUMES		MUD VOL ACCOUNTING (m3)						
	SIZE	HOURS	U/F	Ann Vel (m/min)	ANNULAR VOLUME	105.2	STARTING VOL		200.0				
Centrifuge #1	152	2.0		DP/CSG	STRING CAPACITY		OBM RECD FROM PREV. WELL						
Centrifuge #2	552S	6.0		DP/OH	ACTIVE PITS	40.6	OIL ADDED		7.5				
Derrick Shaker 1	210/210/210	10.0		HW/OH	TOTAL CIRC. VOLUME	145.8	WATER ADDED						
Derrick Shaker 2	210/210/210	10.0		DC/OH	RESERVE OBM	50.0	CHEMICAL ADDED		7.0				
Derrick Shaker 3	210/210/210	10.0		ECD			TOTAL VOLUME BUILT		14.5				
					TOTAL VOLUME	195.8	FORMATION						
				SCREENS USED	CASING DATA		SHAKERS		12.0				
					9.625-in @ 1063 m (1017 TVD)		DUMPED /SOLIDS						
							CENTRIFUGES		6.2				
					SHOE TEST (EMW)		TRIPS		0.5				
BIT DATA		STRING DATA			PUMP DATA			EVAPORATION					
TYPE :		LENGTH	OD	ID	PUMP SIZE	5.75x12 in	spm	gpm	LEFT BEHIND CASING				
SIZE:	8 3/4	CSG			OUTPUT@97%	0.093 bps		bbl/min	TOTAL LOSSES		18.7		
JETS:		DP1			PUMP PRESSURE			psi	OBM T/F TO NEXT WELL				
		HWDP			SURF. TO BIT			min	ENDING VOLUME		195.8		
		DC			BOTTOMS UP TIME/STK.				CUM BUILT SECTION		84.2		
TFA	Liner				TOTAL CIRC. TIME/STK.				CUM LOST SECTION		56.9		

8.75 " INTERVAL										SUT Central Plain 2B			
OPERATOR :		SPUD : 28 Apr 07		DATE : 01 May 07		DEPTH TVD/MD m.		1,829		2,083			
WELL NAME :		AREA : Sirikit Oilfield		RIG : GW80		MUD ENGINEER : Slobodan Lazic / Charin Wongdontri							
OPERATOR REP : Aung Kyaw/Yutthaphum D.				CONTRACTOR : GWDC		CONTRACTOR REP : Han Mln Jul							
MUD TYPE : Versaclean OB		MUD PROPERTIES				MUD PROPERTY SPEC.							
SAMPLE FROM		Flowline	Active	Flowline	Active	Weight	1.20 sg.	HTHP FL	< 3.0 ml	OWR	75/25 - 80/20	YP	10-20
TIME SAMPLE TAKEN		4:00	10:00	15:30	21:45	ES V	600	Excess Lime	1-2	CaCl2%	20-22	6 RPM	8-10
PIT/FLOWLINE TEMP. °C		54	58	62	64	MATERIALS USAGE & COSTS							
DEPTH MD (m)		1,278	1,624	1,684	1,970	MATERIAL		INITIAL	RECVD.	RETURN	USED	BAL.	COST
DEPTH TVD (m)		1,221	1,447	1,568	1,755	BARITE	1.5 mt / sx	73			9	64	\$1,500.75
MUD WEIGHT (eg)		1.28	1.28	1.28	1.28	BENTONITE (M-I)	100 lb / sx	111				111	
FUNNEL VISCOSITY (sec/qt)		58	60	62	60	CAL CARB (C)	50 kg / sx	212			32	180	\$312.00
PLASTIC VISCOSITY (cp)		15	16	17	16	CAL CARB (F)	25 kg / sx						
YIELD POINT (lb/100 cu. ft.)		15	16	18	17	CAL CARB (M)	50 kg / sx	192			29	163	\$282.75
GELS (lb/100 ft <sup>3</sup> ) 10/10/30		15/26/31	17/28/33	19/31/34	18/28/32	CAL CHLORIDE	25 kg / sx	210			20	190	\$290.00
ES (volts)		709	695	730	746	DUO-VIS	25 kg / sx	12				12	
OIL WATER RATIO		80/20	80/20	80/20	80/20	ECOTROL RD	25 kg / sx	22			5	17	\$1,575.00
HTHP (cm <sup>3</sup> /30min) @ 250° F		2.2	2.0	2.0	2.0	ESCAID 110	1 m3 bk	97.64				97.64	
CAKE (32nd in. API/HTHP)		2	2	2	2	HRP	55 gal / dr	5				5	
RET SOLIDS (%vol)		15.5	15.5	16.0	16.0	LIME	25 kg / sx	215			80	135	\$508.00
RETORT OIL (%vol)		67.5	67.5	67.0	67.5	NOVATEC F	55 gal / dr	5				5	
RETORT WATER (%vol)		17.0	17.0	17.0	16.5	KCl	25 kg / sx	151				151	
CORRECTED SOLIDS (%vol)		14.3	14.4	14.9	14.9	KCl (8B)	1 mt / sx	20				20	
% LGS		4.5	4.1	4.3	4.1	OIL BASE MUD	1 m3 bk						
% BAR		9.8	10.2	10.6	10.8	VERSACOAT IC	55 gal / dr	13			3	10	\$1,200.00
LGS ppb		40.8	37.5	38.8	37.6	VERSAGEL HT	25 kg / sx	159			17	142	\$2,659.65
BAR (ppb)		144.4	150.3	158.0	158.2	VERSAMOD	55 gal / dr	7				7	
						VERSAMUL IC	55 gal / dr	14			1	13	\$358.20
ALKALINITY (Pom)		1.5	1.8	1.7	1.8	VERSATROL	50 lb / sx	107				107	
EXCESS LIME (lb/bbl)		2.0	2.1	2.2	2.3								
CHLORIDE (mg/l)		31,000	30,000	29,500	29,000	DAILY ENGR. SERVICE	\$1,300	DAILY CHEM. COST				\$8,686.35	
CaCl2 (%)		22.2	21.6	21.4	21.6	PREVIOUS ENGR. TOTAL	\$3,900	PREVIOUS CHEM. TOTAL				\$42,687.79	
						CUM. ENGR. SERVICE	\$5,200	CUM. CHEM. TOTAL				\$51,354.14	
SAND CONTENT (% vol)		tr	tr	tr	tr	COMMENTS / RECOMMENDATIONS							
AVERAGE SOLIDS, spgr		3.7	3.7	3.7	3.8	Cont. RH. Resumed drilling to 2083m/1829m TVD at report time.							
RHEOLOGY 600/300		45/30	48/32	52/35	49/33								
85° 200/100		24/17	25/18	27/20	26/19								
6/3		11/10	12/11	13/12	12/11								
OOC %						Transferred premix to active to maintain volume and properties. Redressed all shakers with 210 mesh screens. Added 0.6 ppb Ecotrol prior to mainseal (1647mMD) and maintained. Added 10 ppb CaCO3 M/C prior to LKU-K formation (1791mMD) and maintaining while drilling. Ran centrifuge to maintain LGS & MW in system.							
SOLIDS CONTROL EQUIPMENT			HYDRAULICS			MUD VOLUMES			MUD VOL ACCOUNTING (m3)				
		SIZE	HOURS	U/F	Ann Vel (m/min)	ANNULAR VOLUME	56.4	STARTING VOL		231.1			
Centrifuge #1		152			DP/CSG 81.0	STRING CAPACITY	18.5	OBM RECD FROM PREV. WELL					
Centrifuge #2		552S	11.0		DP/OH 83.0	ACTIVE PITS	50.1	OIL ADDED					
Derrick Shaker 1		210/210/210			HW/OH 83.0	TOTAL CIRC. VOLUME	125.0	WATER ADDED					
Derrick Shaker 2		210/210/210			DC/OH 124.0	RESERVE OBM	75.0	CHEMICAL ADDED					
Derrick Shaker 3		210/210/210			ECD 1.35	TOTAL VOLUME BUILT		6.6					
						TOTAL VOLUME	200.0	FORMATION					
						SCREENS USED		SHAKERS					
						CASING DATA		28.8					
						9.625-in @ 1063 m (1017 TVD)		DUMPED /SOLIDS					
						SHOE TEST (EMW)		CENTRIFUGES					
								7.5					
								TRIPS					
BIT DATA		STRING DATA			PUMP DATA			EVAPORATION					
TYPE : FM3563Z		LENGTH	OD	ID	PUMP SIZE 5.75x12 in	150 spm	589 gpm	LEFT BEHIND CASING					
SIZE: 8 3/4		CSG			OUTPUT@97% 0.093 bps	14.0	bbl/min	TOTAL LOSSES					
JETS: 5x16		DP1	1,925.60	5,000	4.276	PUMP PRESSURE	2,573	psl					
		HWDP	129.00	5,000	3,000	SURF. TO BIT		min					
		DC	28.40	6,500	2,750	BOTTOMS UP TIME/STK	25.3 min	3797 stk					
TFA 0.982		Liner				TOTAL CIRC. TIME/STK	56.1 min	8416 stk					
								CUM BUILT SECTION					
								69.7					
								CUM LOST SECTION					
								38.2					

8.75 " INTERVAL										SUT Central Plain 2B									
OPERATOR :		SPUD : 28 Apr 07		DATE : 30 Apr 07		DEPTH TVD/MD m.		1,058		1,106									
WELL NAME :		AREA : Sirikit Oilfield		RIG : GW80		MUD ENGINEER : Siobodan Lazic / Chanin Wongdontri													
OPERATOR REP : Aung Kyaw/Yuthaphum D.				CONTRACTOR: GWDC				CONTRACTOR REP : Han Min Jui											
MUD TYPE : Versaclean OB		MUD PROPERTIES				MUD PROPERTY SPEC.													
SAMPLE FROM		Active		Weight		1.20 sg. HTHP FL		< 3.0 ml		OWR		75/25 - 80/20		YP		10-20			
TIME SAMPLE TAKEN		20:00		ES V.		600		Excess Lime		1-2		CaCl2%		20-22		6 RPM		8-10	
PIT/FLOWLINE TEMP. °C		53		MATERIALS USAGE & COSTS															
DEPTH MD (m)		1,106		MATERIAL		INITIAL		RECV'D.		RETURN		USED		BAL.		COST			
DEPTH TVD (m)		1,058		BARITE		1.5 mt / sx		75				2		73		\$333.50			
MUD WEIGHT (sg)		1.28		BENTONITE (M-I)		100 lb / sx		111						111					
FUNNEL VISCOSITY (sec/qt)		58		CAL CARB (C)		50 kg / sx		212						212					
PLASTIC VISCOSITY (cp)		14		CAL CARB (F)		25 kg / sx													
YIELD POINT (lb/100 cu. ft.)		14		CAL CARB (M)		50 kg / sx		192						192					
GELS (lb/100 ft³) 10/10/30		14/25/29		CAL CHLORIDE		25 kg / sx		210						210					
ES (volts)		716		DUO-VIS		25 kg / sx		12						12					
OIL WATER RATIO		80/20		ECOTROL RD		25 kg / sx		22						22					
HTHP (cm²/30min) @ 250° F		2.4		ESCAID 110		1 m3 bk		97.64						97.64					
CAKE (32nd in. API/HTHP)		2		HRP		55 gal / dr		5						5					
RE IT SOLIDS (%vol)		15.5		LIME		25 kg / sx		225				10		215		\$63.50			
RETORT OIL (%vol)		67.5		NOVATEC F		55 gal / dr		5						5					
RETORT WATER (%vol)		17.0		KCI		25 kg / sx		151						151					
CORRECTED SOLIDS (%vol)		14.3		KCI (BB)		1 mt / sx		20						20					
% LGS		4.2		OIL BASE MUD		1 m3 bk													
% BAR		10.1		VERSACOAT IC		55 gal / dr		13						13					
LGS ppb		37.9		VERSAGEL HT		25 kg / sx		159						159					
BAR (ppb)		149.0		VERSAMOD		55 gal / dr		7						7					
				VERSAMUL IC		55 gal / dr		14						14					
				VERSATROL		50 lb / sx		107						107					
ALKALINITY (Ppm)		1.3																	
EXCESS LIME (lb/bbl)		1.7																	
CHLORIDE (mg/l)		31,000		DAILY ENGR. SERVICE				\$1,300		DAILY CHEM. COST						\$397.00			
CACL2 (%)		22.2		PREVIOUS ENGR. TOTAL				\$2,600		PREVIOUS CHEM. TOTAL						\$42,270.79			
				CUM. ENGR. SERVICE				\$3,900		CUM. CHEM. TOTAL						\$42,667.79			
SAND CONTENT (% vol)		tr		COMMENTS / RECOMMENDATIONS															
AVERAGE SOLIDS, spgr		3.7		Cont. RIH to 780m. Tested MWD with no signal. POOH to change MWD tool. RIH to 690 m. Tested MWD without success. POH to change to another MWD tool. RIH to 1105m. P/U another tool. RIH to 1077 m at report time.															
RHEOLOGY 600/300		42/28																	
65° 200/100		21/16																	
6/3		10/9																	
OOC %																			
SOLIDS CONTROL EQUIPMENT				HYDRAULICS				MUD VOLUMES m3				MUD VOL ACCOUNTING (m3)							
SIZE		HOURS		U/F		Ann Vel (m/min)		ANNULAR VOLUME		30.6		STARTING VOL		230.1					
Centrifuge #1		152				DP/CSG		STRING CAPACITY		9.2		OBM RECD FROM PREV. WELL							
Centrifuge #2		552S				DP/OH		ACTIVE PITS		57.3		OIL ADDED							
Derrick Shaker 1		165/165/165				HW/OH		TOTAL CIRC. VOLUME		97.1		WATER ADDED							
Derrick Shaker 2		165/165/165				DC/OH		RESERVE OBM		134.0		CHEMICAL ADDED		1.0					
Derrick Shaker 3		165/165/165				ECD 1.28						TOTAL VOLUME BUILT		1.0					
								TOTAL VOLUME		131.1		FORMATION							
SCREENS USED				CASING DATA				SHAKERS											
				9.625-in @ 1063 m (1017 TVD)				DUMPED /SOLIDS											
								CENTRIFUGES											
								TRIPS											
BIT DATA				STRING DATA				PUMP DATA				EVAPORATION							
TYPE : FM3563Z		LENGTH		OD		ID		PUMP SIZE 5.75x12 in		spm		gpm		LEFT BEHIND CASING					
SIZE: 8 3/4		CSG						OUTPUT@97% 0.093 bps				bbl/min		TOTAL LOSSES					
JETS: 5x16		DP1		919.60		5.000		PUMP PRESSURE -				psl		OBM T/F TO NEXT WELL					
		HWDP		129.00		5.000		SURF. TO BIT		#DIV/0!		min		ENDING VOLUME		231.1			
		DC		28.40		6.500		BOTTOMS UP TIME/STK.						CUM BUILT SECTION		63.1			
TFA		0.982		Liner				TOTAL CIRC. TIME/STK.						CUM LOST SECTION		0.5			

8.75 " INTERVAL										SUT Central Plain 2B							
OPERATOR :		SPUD : 28 Apr 07		DATE : 29 Apr 07		DEPTH TVD/MD m.		1,058		1,106							
WELL NAME :		AREA : Strikkt Oilfield		RIG : GW80		MUD ENGINEER : Slobodan Lazic / Chanin Wongdorntri											
OPERATOR REP : Aung Kyaw/Yutthaphum D.				CONTRACTOR: GWDC		CONTRACTOR REP : Han Min Jul											
MUD TYPE : Versaclean OB		MUD PROPERTIES				MUD PROPERTY SPEC.											
SAMPLE FROM		Active		Weight 1.20 sg.		HTHP FL		< 3.0 ml		OWR 75/25 - 80/20		YP 10-20					
TIME SAMPLE TAKEN		22:30		ES V. 600		Excess Lime		1-2		CaCl2% 20-22		8 RPM 8-10					
PIT/FLOWLINE TEMP. °C		54		MATERIALS USAGE & COSTS													
DEPTH MD (m)		1,106		MATERIAL		INITIAL		RECVD.		RETURN		USED		BAL.		COST	
DEPTH TVD (m)		1,058		BARITE		1.5 mt / sx		78				3		75		\$500.25	
MUD WEIGHT (sg)		1.28		BENTONITE (M-I)		100 lb / sx		111						111			
FUNNEL VISCOSITY (sec/qt)		58		CAL CARB (C)		50 kg / sx		212						212			
PLASTIC VISCOSITY (cp)		14		CAL CARB (F)		25 kg / sx											
YIELD POINT (lb/100 cu. ft)		13		CAL CARB (M)		50 kg / sx		192						192			
GELS (lb/100 ft³) 10/10/30		14/25/28		CAL CHLORIDE		25 kg / sx		315				105		210		\$1,522.50	
ES (volts)		722		DUO-VIS		25 kg / sx		12						12			
OIL WATER RATIO		80/20		ECOTROL RD		25 kg / sx		22						22			
HTHP (cm²/30min) @ 250° F		2.4		ESCAID 110		1 m3 bk		126.87		14.77		44.00		97.64		\$29,513.44	
CAKE (32nd in. API/HTHP)		2		HRP		55 gal / dr		5						5			
RET SOLIDS (%vol)		15.5		LIME		25 kg / sx		305				80		225		\$508.00	
RETURN OIL (%vol)		67.5		NOVATEC F		55 gal / dr		5						5			
RETORT WATER (%vol)		17		KCI		25 kg / sx		211				60		151		\$946.00	
CORRECTED SOLIDS (%vol)		14.31		KCI (BB)		1 mt / sx		20						20			
% LGS		4.1		OIL BASE MUD		1 m3 bk		168.50				168.50					
% BAR		10.2		VERSACOAT IC		55 gal / dr		18				5		13		\$2,000.00	
LGS ppb		37.35		VERSAGEL HT		25 kg / sx		182				23		159		\$3,598.35	
BAR (ppb)		149.95		VERSAMOD		55 gal / dr		7						7			
				VERSAMUL IC		55 gal / dr		17				3		14		\$1,074.60	
ALKALINITY (Ppm)		1.3		VERSATROL		50 lb / sx		144				37		107		\$997.15	
EXCESS LIME (lb/bbl)		1.69															
CHLORIDE (mg/l)		31000		DAILY ENGR. SERVICE				\$1,300		DAILY CHEM. COST						\$40,659.29	
CACL2 (%)		22.72		PREVIOUS ENGR. TOTAL				\$1,300		PREVIOUS CHEM. TOTAL						\$1,611.50	
				CUM. ENGR. SERVICE				\$2,600		CUM. CHEM. TOTAL						\$42,270.79	
SAND CONTENT (% vol)		tr		COMMENTS / RECOMMENDATIONS													
AVERAGE SOLIDS, spgr		3.7		Ran 9 5/8" csg to 1063 mMD. Cemented as per program. Displaced hole to 1.28sg OBM. Dumped 2.5m3 of contaminated WBM with max 25% cement returned to surface. NUW BOP. RIH 8 3/4" BHA. Drill to 1106m/1058m TVD with no MWD signal. POH to test MWD at 237m. RIH back to 600 m. at report time													
RHEOLOGY 600/300		41/27		Prepared OBM premix. Dressed all shakers with 165 mesh screen. BJ used for cement job: 7 sx CaCl2, 60 sx KCI. Cleaned pits for OBM section. Redressed all shakers to 165 mesh screens prior to drill out cement.													
65° C 200/100		21/16															
6/3		10/9															
OOC %																	
SOLIDS CONTROL EQUIPMENT				HYDRAULICS				MUD VOLUMES m3				MUD VOL ACCOUNTING (m3)					
Centrifuge #1		SIZE 152		HOURS		U/F		Ann Vel (m/min)		ANNULAR VOLUME 36.6		STARTING VOL					
Centrifuge #2		552S						DP/CSG		STRING CAPACITY 4.8		OBM RECD FROM PREV. WELL		168.5			
Derrick Shaker 1		165/165/165		1.0				DP/OH		ACTIVE PITS 54.7		OIL ADDED		44.0			
Derrick Shaker 2		165/165/165		1.0				HW/OH		TOTAL CIRC. VOLUME 96.1		WATER ADDED		12.3			
Derrick Shaker 3		165/165/165		1.0				DC/OH		RESERVE OBM 134.0		CHEMICAL ADDED		5.8			
								ECD 1.28		TOTAL VOLUME BUILT 62.1							
										TOTAL VOLUME 230.1		FORMATION					
								SCREENS USED		CASING DATA		SHAKERS		0.5			
												DUMPED/SOLIDS					
												CENTRIFUGES					
								SHOE TEST (EMW)				TRIPS					
BIT DATA		STRING DATA				PUMP DATA				EVAPORATION							
TYPE : FM3563Z		LENGTH		OD		ID		PUMP SIZE 5.75x12 in		spm		gpm		LEFT BEHIND CASING			
SIZE: 8 3/4		CSG						OUTPUT@97% 0.093 bps		bbl/min		TOTAL LOSSES		0.5			
JETS: 5x16		DP1		442.60		5.000		4.276		PUMP PRESSURE		OBM T/F TO NEXT WELL					
		HWDP		129.00		5.000		3.000		SURF. TO BIT		ENDING VOLUME		230.1			
		DC		28.40		6.500		2.750		BOTTOMS UP TIME/STK.		CUM BUILT SECTION		62.1			
TFA 0.982		Liner								TOTAL CIRC. TIME/STK.		CUM LOST SECTION		0.5			

12.25" INTERVAL										SUT Central Plain 2B			
OPERATOR :		SPUD : 28 Apr 07		DATE : 28 Apr 07		DEPTH TVD/MD m.		1,023	1,069				
WELL NAME :		AREA : Sirikit Oilfield		RIG : GW80		MUD ENGR : Slobodan Lazic / Chanin Wongdontri							
OPERATOR REP : Sitaram/Aung Kyaw				CONTRACTOR : GWDC		CONTRACTOR REP : Han Min Jul							
MUD TYPE : Water/Native c		MUD PROPERTIES				MUD PROPERTY SPEC.							
SAMPLE FROM	Flowline	Active	Weight	1.15 sg	HTHP FL	OWR	YP						
TIME SAMPLE TAKEN	10:30	17:00	ES V	Excess Lime	CaCl2%								
PIT/FLOWLINE TEMP. °C	48	50	MATERIALS USAGE & COSTS										
DEPTH MD (m)	590	1,069	MATERIAL		INITIAL	RECVD.	RETURN	USED	BAL.	COST			
DEPTH TVD (m)	565	1,024	BARITE	1.5 mt / sx	78	16	16		78				
MUD WEIGHT (sg)	1.1	1.13	BENTONITE (M-	100 lb / sx	221			110	111	\$1,611.50			
FUNNEL VISCOSITY (sec/qt)	33	35	CAL CARB (C)	50 kg / sx	152	60			212				
PLASTIC VISCOSITY (cp)	4	5	CAL CARB (F)	25 kg / sx									
YIELD POINT (lb/100 cu. ft.)	8	9	CAL CARB (M)	50 kg / sx	152	40			192				
GELS (lb/100 ft <sup>3</sup> ) 10/10/30	5/7/9	7/9/11	CAL CHLORIDE	25 kg / sx	245	70			315				
ES (volts)			DUO-VIS	25 kg / sx	12				12				
OIL WATER RATIO			ECOTROL RD	25 kg / sx	22				22				
HTHP (cm <sup>3</sup> /30min) @ 250° F			ESCAID 110	1 m3 bk	126.87				126.87				
CAKE (32nd in. API/HTHP)			HRP	55 gal / dr	5				5				
RET SOLIDS (%vol)	4.0	5.0	LIME	25 kg / sx	105	200			305				
RET OIL (%vol)			NOVATEC F	55 gal / dr	5				5				
RETORT WATER (%vol)	96.0	95.0	KCl	25 kg / sx	211				211				
CORRECTED SOLIDS (%vol)	4.0	5.0	KCl (BB)	1 mt / sx	20				20				
% LGS	5.1	7.2	OIL BASE MUD	1 m3 bk	168.50				168.50				
% BAR	NA	NA	VERSACOAT IC	55 gal / dr	2	16			18				
LGS ppb	46.0	65.3	VERSAGEL HT	25 kg / sx	152	30			182				
BAR (ppb)	NA	NA	VERSAMOD	55 gal / dr	7				7				
ALKALINITY (Pom)			VERSAMUL IC	55 gal / dr	9	8			17				
EXCESS LIME (lb/bbl)			VERSATROL	50 lb / sx	84	60			144				
CHLORIDE (mg/l)			DAILY ENGR. SERVICE		\$1,300	DAILY CHEM. COST			\$1,611.50				
CACL2 (%)			PREVIOUS ENGR. TOTAL			PREVIOUS CHEM. TOTAL							
			CUM. ENGR. SERVICE		\$1,300	CUM. CHEM. TOTAL			\$1,611.50				
SAND CONTENT (% vol)			COMMENTS / RECOMMENDATIONS										
AVERAGE SOLIDS, spgr	2.6	2.6	Skidded to LKU-Z04(ZE) M/U 12.25" BHA. Spudded the well at 02:50 hours. Drilled to TD 1069mMD / 1024mVD. Carbide test indicated avr. hole size 12.73" and 12.96" peak. Backreamed out of hole. Bit on surface at report time.										
RHEOLOGY 600/300	16/12	19/14	Filled all active pits with water. Dressed all shakers with 200 mesh screens. Prepared Hi Vis Bentonite in slug pit. Dumped sand trap at 96m (12% sand), 212m (20% sand), 299m (18% sand), 444m (18% sand), 587m (10%), 760m (9% sand), 903m (7% sand), 1047m (6% sand). While backreaming dumped ST at: 846m (5% sand), 616m (4% sand), 357m (4% sand). Bled Hi vis Bentonite to active after dumping sand trap.										
65° C	200/100	9/6	Rcvd 16 BB Barite from BKK. Returned 16 BB Barite from rig to WH LKU.										
	6/3	5/4											
DOC % (Brandt / Thule)													
SOLIDS CONTROL EQUIPMENT			HYDRAULICS			MUD VOLUMES m3		MUD VOL ACCOUNTING (m3)					
	SIZE	HOURS	U/F	Ann Vel (m/min)	ANNULAR VOLUME	81.3	STARTING VOL						
Centrifuge #1	152	20		DP/CSG	STRING CAPACITY		OBM RECD FROM PREV. WELL						
Centrifuge #2	552S	20		DP/OH	ACTIVE PITS	43.3	OIL ADDED						
Derrick Shaker 1	210/210/210	20		HW/OH	TOTAL CIRC. VOLUME	124.3	WATER ADDED	271.60					
Derrick Shaker 2	210/210/210	20		DC/OH	RESERVE		CHEMICAL ADDED	2.80					
Derrick Shaker 3	210/210/210	20		ECD	OBM AT M LOCATION		TOTAL VOLUME BUILT	273.70					
					TOTAL VOLUME	124.3	FORMATION						
				SCREENS USED	CASING DATA		SHAKERS	28.00					
							DUMPED	99.00					
							CENTRIFUGES	22.40					
					SHOE TEST (EMW)		TRIPS						
BIT DATA		STRING DATA			PUMP DATA			EVAPORATION					
TYPE :		LENGTH	OD	ID	PUMP SIZE 5.75x12 in	spm	gpm	LEFT BEHIND CASING					
SIZE:	12 1/4	CSG			OUTPUT@ 97% .093 bps		bb/min	TOTAL LOSSES 149.40					
JETS:		DP1			PUMP PRESSURE		psi	OBM T/F TO NEXT WELL					
		HWDP			SURF. TO BIT		min	ENDING VOLUME 124.30					
		DC			BOTTOMS UP TIME/STK			CUM BUILT SECTION 273.70					
TFA		Liner			TOTAL CIRC. TIME/STK			CUM LOST SECTION 149.40					

5.56 gpm x 26.8 min = 149.4



**BIT AND HYDRAULICS PROGRAM**

Hole Size (inch)	MD Interval (ft - RKB)	Bit Type (or similar type)	IADC Code	Nozzles (3/2nd inch)	RPM	WOB (KLBs)	Press (psi)	Flow Rate (gpm)	Lines (in)
26	0 - 120	CR1	1-1-1	20-20-20-18	80-100	10-20	450	1000	6-1/4"
17-1/2	120 - 600	MAX G-3	1-3-5	18-18-18	70-120	30-50	3200	900	6-1/4"
	600 - 1500	ATM-22	5-1-7	18-18-18	70-80	40-70	3200	900	6-1/4"
12-1/4 {Kick-off}	1,500 - 6,200	PDC (β)		13's	80-150	20-30	4000	600	5"
	6,200 - 6,800	ATM-22 (4)	5-1-7	16-16-16	80-150	50-60	4000	600	5"
	6,800 - 10,200	ATM-33	5-3-7	16-16-16	80-150	50-60	4000	600	5"
8-1/2	10,200 - TD	ATJ-44	5-4-7	12-12-12	100-160	35-45	4000	400	5"

Notes:

1. Motors are planned to be used in each hole interval.
2. Guideline parameters indicated, actual drilling parameters will be adjusted to achieve optimum drilling performance.
3. 12-1/4" PDC bit recommendation and operating guidelines to be issued at a later date.
4. For Geological reasons, well is planned with a 45° E&H directional profile with KOP @ 6,200 ft. Consideration should be made to use an enhanced bearing and cutting structure motor bit to kick the well off (e.g., Smith Magnum 20 MFD or equivalent). Details will be transmitted to the rig at a later date.

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**BOTTOM HOLES ASSEMBLIES - SURVEY REQUIREMENT**

Hole Size (inches)	WOB (Klbs)	Bottom Hole Assembly
26	10-20	26" bit, 9-5/8" F2000 straight housing motor, 26" stabilizer, 2 x 9-1/2" DC, 5" drill pipe.
17-1/2 (w/ motor)	30-50	17-1/2" bit, 9-5/8" F2000 straight housing motor, float sub, 9-1/2" NMDC, 17-1/2" stab, 4 x 9-1/2" DC, XO, 12 x 8-1/4" DC, XO, 6 x 5" HWDP, 5" drill pipe.
17-1/2 (w/o motor)	40-70	17-1/2" bit, float sub, 9-1/2" NMDC, 9-1/2" DC, 17-1/2" stab, 4 x 9-1/2" DC, XO, 12 x 8-1/4" DC, XO, 5" HWDP as req'd, 5" drill pipe.
12-1/4 (vertical)	20-30	12-1/4" PDC bit, float sub, 8" NMDC, 8-1/4" DC, 12-1/4" stab, 8-1/4" DC (as req'd), 6 x 5" HWDP, 6-1/2" Jars, HWDP as reqd, 5" drill pipe.
12-1/4 (steerable) {used to kick-off well}	50-60	12-1/4" rock bit, 9-5/8" F2000 bent housing ( $\pm 1.25^\circ$ ) steerable motor, float sub, 8" Dir MWD, 1 x 8" NMDC, 12-1/4" string stab, 2 x 8-1/4" DC, 6 x 5" HWDP, 6-1/2" Jars, 5" HWDP as reqd, 5" DP.
12-1/4 (packed)	50-60	12-1/4" rock bit, 12-1/4" NB stab, 8" pony DC, 12-1/4" stab, 8" Dir MWD (or 8" NMDC), 12-1/4" NM stab, 8" NMDC, 12-1/4" stab, 8-1/4" DC as req'd, XO, 6 x 5" HWDP, 6-1/2" Jars, 5" HWDP as reqd, 5" drill pipe.
8-1/2 (packed)	35-45	8-1/2" bit, 8-1/2" NB stab, 1 x 6-1/2" Monel Pony DC, 8-1/2" stab, 1 x 6-1/2" NMDC, 8-1/2" stab, 6-1/4" DC as reqd, 6 x 5" HWDP, 6-1/2" Jars, 5" HWDP as reqd, 5" drill pipe.
8-1/2 (steerable) {if correction run is req'd}	20-30	8-1/2" rock bit, 6-3/4" F2000 bent housing ( $\pm 1.25^\circ$ ) steerable motor, float sub, 6-1/2" Dir MWD, 1 x 6-1/4" NMDC, 8-1/2" string stab, 2 x 6-1/4" DC, 6 x 5" HWDP, 6-1/2" Jars, 5" HWDP as reqd, 5" DP.

**SURVEY REQUIREMENTS**

1. Magnetic single shot surveys shall be made at 500 foot intervals from spud to kick-off point and at casing points. If inclination only surveys (i.e., Totco's) are run, consideration will be made to tie subject interval in with a magnetic multishot or gyroscopic survey.
2. During directional drilling, magnetic single shot or MWD directional surveys shall be made as follows:
  - a. every 30 feet or less during programmed angle change sections (building or turning).
  - b. at intervals not exceeding 150 feet during angle "hold" sections.

## MUD PROGRAM

Hole Size (In)	MD Interval (Ft)	Mud type	Mud Wt. (ppg)	Solids Volume (%)	PV	YP	API FL cc/30min	Oil/Water Ratio	pH	CI G/L	CEC
26	0 - 120	Gel/Water	8.5 - 9.0	≤ 5	5 - 15	30-40	N/C	N/A	9.0 - 9.5	N/A	< 35
17-1/2	120 - 1500	± 15% KCL/Polymer	9.3 - 10.0	≤ 13	10 - 15	20-30	N/C	N/A	9.0 - 9.5	78,000	≤ 10
12-1/4	1500 - 10,200	Diesel OBM	7.0 - 9.0	≤ 8	20 - 30	10-30	< 10	90/10 - 85/15	N/A	N/A	N/A
8-1/2	10,200 - TD	± 6% KCL/Polymer	9.8 - 14.0	≤ 25	10 - 20	15-25	< 10	N/A	9.0 - 9.5	30,000	≤ 10

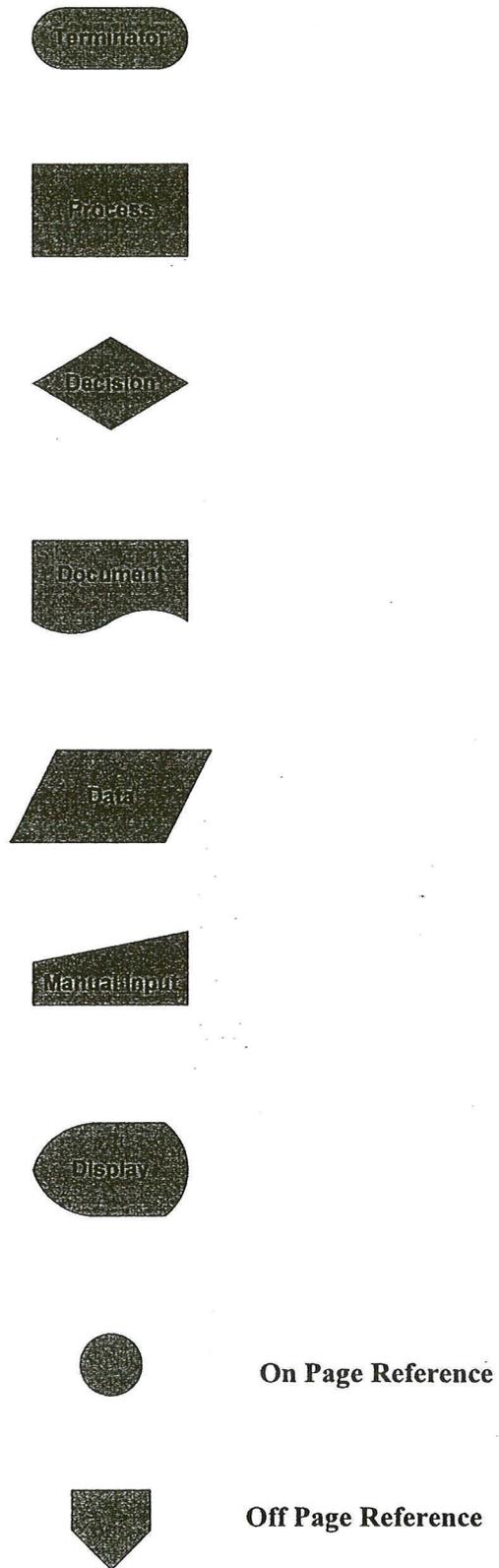
### NOTES:

- 1) Hole conditions and/or abnormal pressure may dictate changes from the proposed guidelines. To maximize ROP and minimize lost returns potential, it is recommended that the minimum MW schedule listed above be followed as much as practical (i.e., until well/hole conditions indicate an increase in MW is required or if dilution required to maintain minimum MW becomes excessive). The mud engineer is expected to make any recommendations which he feels will improve this program and the overall well efficiency. Recommendations should be made to the Esso Operations Supervisor and Superintendent via the daily mud report.
- 2) Minimum of one complete mud check (in & out) per eight hours of drilling and a complete mud check on bottoms up after each trip is required. Mud checks while drilling will include in and out properties, with samples being taken after proper lag time (catch sample at suction pit, allow for cycle time, and catch sample at flowline). Mud properties to be measured at 120° F (APD).
- 3) H.T.H.P. water loss will be run at 250° F and 500 psi or maximum anticipated B.H.T. (whichever is higher) and maintained at 12-15cc/30 minutes below the surface casing shoe. Filter cake description should be made at API conditions (120° F and 100 psi).
- 4) Consideration should be made to use Glycol/KCL/PHPA mud if used mud can be economically sourced for 17-1/2" hole section. Analysis should look at availability, volume of mud that can be returned, potential ROP enhancements and reduced disposal costs. Due to the inhibitive properties of Glycol, it may also be possible to reduce the KCL concentration of the mud system (e.g., 15% down to ± 8%).
- 5) Refer to Drilling Operations manual for Oil Base Mud Guidelines and Checklist. Ensure all personnel working near OBM wear appropriate Personnel Protective Equipment (PPE) and follow recommended safety precautions. To reduce time spent in critical path (*Fast Track*) and to minimize OBM contamination, consideration should be made to displace/bump 13-3/8" casing top wiper plug with OBM during cementing (may require additional mud tanks; active mud tanks can be dumped/cleaned while WOC and nipping up "A" section & BOP's).

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ภาคผนวก ข

**สัญลักษณ์ฟังก์ชันและ Source Code ของโปรแกรม PRE\_HO  
(Pressure Loss and Horse Power for Thailand Drilling Well)**



รูปภาพ ค.1 สัญลักษณ์ผังงานของโปรแกรม PRE\_HO (Pressure Loss and Horse Power for Thailand Drilling Well)

Option Explicit

Private Sub calculation\_Click()

Dim Ps, q, Vc, Vap, Re, f, Pp, Vac, Pc, de, d, deq, Pb, Vcc, Vccol, Vacc, Vacp, Vcp, Pac, Pap, Pt, HP, dea, Vahw, Vachw, Vchw,  
Vcchw

Dim L, Ldp, Idp, Odp, Idc, Odc, Dh, Den, Vis, Y, V, M, inp, TF, Rate, Lhw, Ihw, Ohw, Phw, Pahw

L = Val(Text1.Text)

Ldp = Val(Text2.Text)

Idp = Val(Text3.Text)

Odp = Val(Text4.Text)

Lhw = Val(Text15.Text)

Ihw = Val(Text13.Text)

Ohw = Val(Text14.Text)

Idc = Val(Text5.Text)

Odc = Val(Text6.Text)

Dh = Val(Text10.Text)

Den = Val(Text7.Text)

Vis = Val(Text8.Text)

Y = Val(Text9.Text)

V = Val(Text20.Text)

M = Val(Text19.Text)

inp = Val(Text21.Text)

TF = Val(Text11.Text)

Rate = Val(Text12.Text)

If L = 0 Then

MsgBox "Please check data input or Press Check Input button"

ElseIf Ldp = 0 Then

MsgBox "Please check data input or Press Check Input button"

ElseIf Idp = 0 Then

MsgBox "Please check data input or Press Check Input button"

ElseIf Odp = 0 Then

MsgBox "Please check data input or Press Check Input button"

ElseIf Idc = 0 Then

MsgBox "Please check data input or Press Check Input button"

ElseIf Odc = 0 Then

MsgBox "Please check data input or Press Check Input button"

ElseIf Dh = 0 Then

MsgBox "Please check data input or Press Check Input button"

ElseIf ((Ldp + Lhw) > L) Then

MsgBox "Please check data input or Press Check Input button"

```

Elseif Den = 0 Then
MsgBox "Please check data input or Press Check Input button"
Elseif Vis = 0 Then
MsgBox "Please check data input or Press Check Input button"
Elseif Y = 0 Then
MsgBox "Please check data input or Press Check Input button"
Elseif V = 0 Then
MsgBox "Please check data input or Press Check Input button"
Elseif M = 0 Then
MsgBox "Please check data input or Press Check Input button"
Else

If Rate = 0 Then
    If TF = 1 Then
        Vacp = 3
        q = 2.45 * (Dh ^ 2 - Odp ^ 2) * Vacp
        Text12.Text = Round(q, 2)
        Elseif TF = 2 Then
            Vacp = 2.75
            q = 2.45 * (Dh ^ 2 - Odp ^ 2) * Vacp
            Text12.Text = Round(q, 2)
            Else: MsgBox "                Please Check the Type of formation" & vbCrLf & "Type 1 for Sort formation and Type 2
for Hard formation or Input Circulation rate"
                End If
        Else: q = Val(Text12.Text)
        Vacp = q / (2.45 * (Dh ^ 2 - Odp ^ 2))
        Text12.Text = Round(q, 2)
        Text11.Text = " "
        End If

If (inp = 1) Then
Ps = (0.0007 * q ^ 2 + 0.0358 * q) * Den / 9.5
Elseif (inp = 2) Then Ps = (0.00022 * q ^ 2 + 0.0149 * q) * Den / 9.5
Elseif (inp = 3) Then Ps = (0.0003 * q ^ 2 + 0.0186 * q) * Den / 9.5
Elseif (inp = 4) Then Ps = (0.0001 * q ^ 2 + 0.0081 * q) * Den / 9.5
Elseif (inp = 5) Then Ps = (0.0001 * q ^ 2 - 0.0014 * q) * Den / 9.5
Else: MsgBox "Please insert type of Ps again,it's out of range"
End If

Vc = (1.08 * Vis + 1.08 * (Vis ^ 2 + 9.3 * Den * Idp ^ 2 * Y) ^ 0.5) / (Den * Idp)

```

$$V_{ap} = q / (2.45 * I_{dp}^2)$$

If ( $V_{ap} > V_c$ ) Then

$$P_p = \text{Round}(0.055 * (2970 * \text{Den} * V_{ap} * I_{dp} / \text{Vis})^{-0.2037} * \text{Den} * L_{dp} * V_{ap}^2 / (25.8 * I_{dp}), 2)$$

Else

$$P_p = \text{Round}((\text{Vis} * L_{dp} * V_{ap}) / (1500 * I_{dp}^2), 2)$$

End If

If ( $L_{hw} > 0$ ) Then

$$V_{chw} = (1.08 * \text{Vis} + 1.08 * (\text{Vis}^2 + 9.3 * \text{Den} * I_{hw}^2 * Y)^{0.5}) / (\text{Den} * I_{dp})$$

$$V_{ahw} = q / (2.45 * I_{hw}^2)$$

If ( $V_{ahw} > V_{chw}$ ) Then

$$P_{hw} = \text{Round}(0.055 * (2970 * \text{Den} * V_{ahw} * I_{hw} / \text{Vis})^{-0.2037} * \text{Den} * L_{hw} * V_{ahw}^2 / (25.8 * I_{hw}), 2)$$

Else

$$P_{hw} = \text{Round}((\text{Vis} * L_{hw} * V_{ahw}) / (1500 * I_{hw}^2), 2)$$

End If

Else

$$P_{hw} = 0$$

End If

$$V_{ccol} = (1.08 * \text{Vis} + 1.08 * (\text{Vis}^2 + 9.3 * \text{Den} * I_{dc}^2 * Y)^{0.5}) / (\text{Den} * I_{dc})$$

$$V_{ac} = q / (2.45 * I_{dc}^2)$$

If ( $V_{ac} > V_{ccol}$ ) Then

$$P_c = \text{Round}(0.055 * (2970 * \text{Den} * V_{ac} * I_{dc} / \text{Vis})^{-0.2037} * \text{Den} * (L - L_{dp} - L_{hw}) * V_{ac}^2 / (25.8 * I_{dc}), 2)$$

Else

$$P_c = \text{Round}((\text{Vis} * (L - L_{dp} - L_{hw}) * V_{ac}) / (1500 * I_{dc}^2), 2)$$

End If

$$d_e = (q / 1837.5)^{0.5}$$

If ( $d_e < 0.282$ ) Then

$$d = 0.188$$

ElseIf ( $d_e < 0.391$ ) Then  $d = 0.375$

ElseIf ( $d_e < 0.422$ ) Then  $d = 0.406$

ElseIf ( $d_e < 0.469$ ) Then  $d = 0.438$

ElseIf ( $d_e < 0.532$ ) Then  $d = 0.5$

ElseIf ( $d_e < 0.594$ ) Then  $d = 0.563$

ElseIf ( $d_e < 0.657$ ) Then  $d = 0.625$

ElseIf ( $d_e < 0.719$ ) Then  $d = 0.688$

ElseIf ( $d_e < 0.782$ ) Then  $d = 0.75$

ElseIf ( $d_e < 0.844$ ) Then  $d = 0.813$

Else:  $d = 0.875$

End If

$deq = (3 * d^2)^{0.5}$

$Pb = \text{Round}(q^2 * Den / (6705.58 * deq^4), 2)$

$Vcc = ((1.08 * Vis) + 1.08 * (Vis^2 + 9.3 * Den * (Dh - Odc)^2 * Y)^{0.5}) / (Den * (Dh - Odc))$

$Vacc = q / (2.45 * (Dh^2 - Odc^2))$

If  $(Vacc \leq Vcc)$  Then

$Pac = \text{Round}(Vis * (L - Ldp - Lhw) * Vacc / (1500 * (Dh - Odc)^2), 2)$

Else

$Pac = \text{Round}((0.0331 * ((2970 * Den * Vacc * (Dh - Odc)) / Vis)^{-0.1359}) * Den * (L - Ldp - Lhw) * (Vacc^2) / (25.8 * (Dh - Odc)), 2)$

End If

If  $(Lhw > 0)$  Then

$Vcchw = ((1.08 * Vis) + 1.08 * (Vis^2 + 9.3 * Den * (Dh - Ohw)^2 * Y)^{0.5}) / (Den * (Dh - Ohw))$

$Vachw = q / (2.45 * (Dh^2 - Ohw^2))$

If  $(Vachw \leq Vcchw)$  Then

$Pahw = \text{Round}(Vis * (Lhw) * Vachw / (1500 * (Dh - Ohw)^2), 2)$

Else

$Pahw = \text{Round}((0.0331 * ((2970 * Den * Vachw * (Dh - Ohw)) / Vis)^{-0.1359}) * Den * (Lhw) * (Vachw^2) / (25.8 * (Dh - Ohw)), 2)$

End If

Else

$Pahw = 0$

End If

$Vcp = (1.08 * Vis + 1.08 * (Vis^2 + 9.3 * Den * (Dh + Odp)^2 * Y)^{0.5}) / (Den * (Dh - Odp))$

If  $(Vacp > Vcp)$  Then

$Pap = \text{Round}(0.03 * (2970 * Den * Vacp * (Dh - Odp) / Vis)^{-0.1359} * Den * Ldp * Vacp^2 * (25.8 * (Dh - Odp)), 2)$

Else

$Pap = \text{Round}((Ldp * Y / (300 * (Dh - Odp))) + Vis * Vacp * Ldp / (1500 * (Dh - Odp)^2), 2)$

End If

$Pt = \text{Round}(Ps + Pp + Phw + Pc + Pb + Pac + Pap + Pahw, 2)$

$HP = \text{Round}(q * Pt / (1714 * V * M), 2)$

$\text{Label59.Caption} = \text{Round}(Vacp, 2)$

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Label44.Caption = Round(Ps, 2)
Label45.Caption = Pp
Label46.Caption = Pc
Label47.Caption = Pb
Label48.Caption = Pac
Label49.Caption = Pap
Label50.Caption = Pt
Label51.Caption = HP
End If
End Sub

Private Sub Check_Click()
Dim Ps, q, Vc, Vap, Re, f, Pp, Vac, Pc, de, d, deq, Pb, Vcc, Vccol, Vacc, Vacp, Vcp, Pac, Pap, Pt, HP, dea
Dim L, Ldp, Idp, Odp, Idc, Odc, Dh, Den, Vis, Y, V, M, inp, CH, Rate, TF, Lhw, lhw, Ohw

VACP = 3
L = Val(Text1.Text)
Ldp = Val(Text2.Text)
Lhw = Val(Text15.Text)
Idp = Val(Text3.Text)
Odp = Val(Text4.Text)
Idc = Val(Text5.Text)
Odc = Val(Text6.Text)
Dh = Val(Text10.Text)
Den = Val(Text7.Text)
Vis = Val(Text8.Text)
Y = Val(Text9.Text)
V = Val(Text20.Text)
M = Val(Text19.Text)
inp = Val(Text21.Text)
TF = Val(Text11.Text)
Rate = Val(Text12.Text)

If (L <= 50) Then
MsgBox "Total Depth should be between 50 to 99,999 ft", vbOKOnly
ElseIf (L > 99999) Then MsgBox "Total Depth should be between 50 to 99,999 ft", vbOKOnly
ElseIf (Ldp < 50) Then MsgBox "Please Check the length of Drillpipe ", vbOKOnly
ElseIf (Ldp > L) Then MsgBox "Please Check the length of Drillpipe ", vbOKOnly
ElseIf (Idp = 0) Then MsgBox "Please Check Inside Drillpipe Diameter ", vbOKOnly
ElseIf (Odp = 0) Then MsgBox "Please Check Outside Drillpipe Diameter ", vbOKOnly

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ElseIf (Ldp < Lhw) Then MsgBox "Please Check the length of Drillpipe or Drillcollar", vbOKOnly
ElseIf ((Ldp + Lhw) > L) Then MsgBox "Please Check the length of Drillpie or Heavy Weight Drillpipe or Drillcollar", vbOKOnly
ElseIf (Idp > Odp) Then MsgBox "Please Check Diameter of Drillpipe ", vbOKOnly
ElseIf (Idc > Odp) Then MsgBox "Please Check Diameter of Drillpipe or Drillcollar ", vbOKOnly
ElseIf (Idc >= Odc) Then MsgBox "Please Check Diameter of Drillcollar ", vbOKOnly
ElseIf (Dh <= Odp) Then MsgBox "Please Check Bit dimeter", vbOKOnly
ElseIf (Den <= 5) Then MsgBox "The Mud Density should be between 5 - 25 lb/gal", vbOKOnly
ElseIf (Dh <= (Odc + 0.5)) Then MsgBox "Please Check Bit dimeter", vbOKOnly
CH = 1
ElseIf (Den > 25) Then MsgBox "The Mud Density should be between 8 - 25lb/gal", vbOKOnly
ElseIf (M < 0.8) Then MsgBox "The mechanical efficiency should be between 0.8 - 1.0", vbOKOnly
ElseIf (M > 1) Then MsgBox "The mechanical efficiejncy should be between 0.8 - 1.0", vbOKOnly
ElseIf (V < 0.9) Then MsgBox "The volumetric efficiency should be between 0.9 - 1.0", vbOKOnly
ElseIf (V > 1) Then MsgBox "The volumetric efficiency should be between 0.9 - 1.0", vbOKOnly
ElseIf (TF > 0 & Rate > 0) Then MsgBox " Please selected formation type or input the circurate rate", vbOKOnly
Else: MsgBox "Please Run the Horse Power Calculation", vbOKOnly
calculation.Visible = True
End If
End Sub

Private Sub formation_Click()
MsgBox " Please input the formation Type (Soft formation type 1 eg. Shale for estimate the velocity of mud flow around
drillpipe 3 ft/sec and " & vbCrLf & "Hard formation type 2 eg. Granular or Carbonate for estimate the velocity of mud flow
around drillpipe 2.75 ft/sec ) or input the circulation rate "
End Sub

Private Sub print_Click()

PrintDlg.ShowPrinter
Printer.Print " "
Printer.Print " "
Printer.Print " Data Input"
Printer.Print "

=====

Printer.Print " Total Depth = " & Text1.Text & Label14.Caption
Printer.Print " Drillpipe Length = " & Text2.Text & Label15.Caption
Printer.Print " Inside Drillpipe Diameter = " & Text3.Text & Label16.Caption
Printer.Print " Outside Dripipe Diameter = " & Text4.Text & Label17.Caption
Printer.Print " Heavy Weight Drillpipe Length = " & Text15.Text & Label65.Caption

```

```

Printer.Print "    Inside Heavy Weight Drillpipe Diameter = " & Text13.Text & Label62.Caption
Printer.Print "    Outside Heavy Weight Drillpipe Diameter = "; Text14.Text & Label64.Caption
Printer.Print "    Inside Drillcollar Diameter = " & Text5.Text & Label18.Caption
Printer.Print "    Outside Drillcollar Diameter = " & Text6.Text & Label19.Caption
Printer.Print "    Bit Size = " & Text10.Text & Label23.Caption
Printer.Print "    Mud Density = " & Text7 & Label20.Caption
Printer.Print "    Mud Viscosity = " & Text8.Text & Label21.Caption
Printer.Print "    Bingham's Yield Value = " & Text9.Text & Label22.Caption
Printer.Print "    Mechanical Efficiency = " & Text19.Text
Printer.Print "    Volumetric Efficiency = " & Text20.Text
Printer.Print "    Circuration Rate = " & Text12.Text & Label57.Caption

```

```
Dim TFP, SUR
```

```

TFP = Val(Text11.Text)
If TFP = 1 Then
Printer.Print "    Soft Formation"
ElseIf TFP = 2 Then
Printer.Print "    Hard Formation"
Else: Printer.Print "    Type of formation not available"
End If

```

```

SUR = Val(Text21.Text)
If SUR = 1 Then
Printer.Print "    Surface Pressure Loss is Type 1"
ElseIf SUR = 2 Then
Printer.Print "    Surface Pressure Loss is Type 2"
ElseIf SUR = 3 Then
Printer.Print "    Surface Pressure Loss is Type 3"
Else: Printer.Print "    Surface Pressure Loss is Type 4"
End If

```

```

Printer.Print " "
Printer.Print " "
Printer.Print " "
Printer.Print " "
Printer.Print "    Pressure Loss and Horse Power"
Printer.Print "

```

---

```
="
```

```
Printer.Print "    Mud Velocity around Drillpipe = " & Label59.Caption & Label60.Caption
```

```

Printer.Print "      Surface Pressure Loss = " & Label44.Caption & Label32.Caption
Printer.Print "      Pressure Loss inside Drillpipe = " & Label45.Caption & Label33.Caption
Printer.Print "      Pressure Loss inside Drillcollar = " & Label46.Caption & Label34.Caption
Printer.Print "      Pressure Loss across Bit = " & Label47.Caption & Label35.Caption
Printer.Print "      Pressure Loss in annulus around Drillcollar = " & Label48.Caption & Label36.Caption
Printer.Print "      Pressure Loss in annulus around Drillpipe = " & Label49.Caption & Label37.Caption
Printer.Print "      Total Pressure Loss = " & Label50.Caption & Label38.Caption
Printer.Print "      Horse Power Required = " & Label51.Caption & Label39.Caption

```

```
Printer.EndDoc
```

```
End Sub
```

```
Private Sub CLEAR_Click()
```

```

Text1.Text = " "
Text2.Text = " "
Text3.Text = " "
Text4.Text = " "
Text5.Text = " "
Text6.Text = " "
Text10.Text = " "
Text7.Text = " "
Text8.Text = " "
Text9.Text = " "
Text19.Text = " "
Text20.Text = " "
Text11.Text = " "
Text13.Text = " "
Text14.Text = " "
Text15.Text = " "
Text21.Text = " "
Text12.Text = " "

```

```
End Sub
```

```
Private Sub Type_Click()
```

MsgBox " Component	No.1		No.2		No.3		No.4" &	
vbCrLf & "	Id	Length	Id	Length	Id	Length	Id	Length" &
vbCrLf & "-Standpipe	3	40	3.5	40	4	45	4	45" &
vbCrLf & "-Horse	2	45	2.5	55	3	55	3	55" &

```
vbCrLf & "-Swivel wash pip gooseneck 2 4 2.5 5 2.5 5 3 6" &  
vbCrLf & _  
"-Kelly 2.25 40 3.25 40 3.25 40 4 40", vbOKOnly,  
"Instruction"  
End Sub  
  
Private Sub exit_Click()  
  
End  
  
End Sub
```