

FEB 2003
RECEIVED
OCD - ARTESIA
OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

WELL API NO. 30-015-32530
5. Indicate Type of Lease STATE ☒ FEE ☐
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name: Indian Hills Unit Indian Hills Unit
8. Well No. 50
9. Pool name or Wildcat Indian Basin Upper Perm. Assoc.

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☒ Other	7. Lease Name or Unit Agreement Name: Indian Hills Unit Indian Hills Unit
2. Name of Operator Marathon Oil Company	8. Well No. 50
3. Address of Operator P.O. Box 552 Midland, TX 79702	9. Pool name or Wildcat Indian Basin Upper Perm. Assoc.
4. Well Location Unit Letter <u>K</u> : <u>1821'</u> feet from the <u>South</u> line and <u>2092'</u> feet from the <u>West</u> line Section <u>16</u> Township <u>21-S</u> Range <u>24-E</u> NMPM County <u>Eddy</u>	
10. Elevation (Show whether DR, RKB, RT, GR, etc.) 4118'	

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPLETION ☐

OTHER: ☐

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ PLUG AND ABANDONMENT ☐
CASING TEST AND CEMENT JOB ☐

OTHER: ☒

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

Please find attached end of well documents.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE Jerry Fletcher TITLE Engineer Tech. DATE 2/26/03

Type or print name Jerry Fletcher Telephone No. 915-687-8360

(This space for State use)

APPROVED BY Accepted for record B4 TITLE _____ DATE MAR 03 2003
Conditions of approval, if any:

Marathon Oil Company

Operations Summary Report

Page 1 of 11

Legal Well Name: INDIAN HILLS UNIT NO. 50
 Common Well Name: INDIAN HILLS UNIT NO. 50
 Event Name: ORIGINAL DRILLING
 Contractor Name: MCVAY DRILLING
 Rig Name: MCVAY DRILLING

Start: 7/7/2003
 Rig Release:
 Rig Number: 4
 Spud Date: 7/7/2003
 End:
 Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
1/21/2003	08:00 - 18:00	10.00	RIG	DMOB	MIRU	Location built by Key Const. Drilled & set 40' of 14" conductor pipe (GL). Cemented to surface. MIRU McVay #4. Finished rigging up. Welded on 13 5/8" flange on conductor pipe. NU 13 5/8" 3 M Hydril & drilling spool. Shut down for night.
1/22/2003	06:00 - 08:00	2.00	WAIT	Crew	MIRU	Shut down until daylight. Started Air compressors. (Safety meeting)
	08:00 - 08:30	0.50	DRILL	AIR	DRLSUR	Air Drilling. Spudded 12 1/4" hole @ 8:00 AM CST. Mist drilled t/ 75'. Mist pump not pumping.
	08:30 - 09:00	0.50	EQUIP	REQP	DRLSUR	Shut down. Pumping air only. Repair Equipment. Cleaned out Mist pump.
	09:00 - 09:30	0.50	DRILL	AIR	DRLSUR	Air Drilling. Mist drilled. Mist pump quit pumping.
	09:30 - 10:30	1.00	EQUIP	REQP	DRLSUR	Repair Equipment. Cleaned out Mist pump. (Pumping with air only while down for repairs.) Returns.
	10:30 - 10:45	0.25	DRILL	AIR	DRLSUR	Air Drilling. Mist pump not pumping.
	10:45 - 16:45	6.00	FISH	JAR	DRLSUR	Pumping air only. No returns. Repaired mist pump after 1 hr. (Cleaned small rocks from valves) Attempted t/ pull up with bit. Pulled t/ 93'. (tight hole) Worked pipe out hole after 6 hrs. (Mud ring)
	16:45 - 17:00	0.25	CIRC	CLN	DRLSUR	Pumped hole w/ air & mist. 2500 SCF.(20 BPH) of fluid. Good returns. No sticking problem. Hole clean.
	17:00 - 21:45	4.75	FISH	RFSH	DRLSUR	Attempted to drill. Hammer not hitting. POOH w/ Hammer. (No bit on bottom of Hammer) Bit had screwed off of Hammer. Made 5 attempts to screw bit back into Hammer. No success.
	21:45 - 00:00	2.25	FISH	PFSH	DRLSUR	L/D Hammer. Waited on Taper-tap f/ GL & 10" Magnet
	00:00 - 01:00	1.00	FISH	PFSH	DRLSUR	RI w/ 10" Magnet t/ top of fish @ 101'. Washed 6" of fill w/ mist. Good returns. POH w/ Magnet. No recovery. (attempting to recovery 2- haft moon rings that holds Retainer)
	01:00 - 03:30	2.50	WAIT	EQIP	DRLSUR	Found 4 1/2" XO box on Taper tap would not make up properly. Had to take 2 nd Taper Tap back to Artesia to cut the end off to fit the right ID.
	03:30 - 05:00	1.50	FISH	RFSH	DRLSUR	Run in Hole with w/ Taper tap. Tagged fish @ 101'. Made 2 runs with Tap. Could not fish. L/D Tap.
	05:00 - 06:00	1.00	FISH	RFSH	DRLSUR	RI w/ 8 5/8" OD x 6 1/8" (Grapple) Short catch overshot t/ 101'. Could not get to top of shank. No recovery.
1/23/2003	06:00 - 07:00	1.00	FISH	RFSH	DRLSUR	RIH w/ Hammer in attempt to screw Hammer (skirt onto bit) Butress thread. Could not screw into fish.
	07:00 - 09:00	2.00	FISH	RFSH	DRLSUR	Cut 2" off skirt on short catch overshot. RIH. Lached over fish. Pulled 25,000# over wt. POOH. Full recovery. (both moon shape rings on out side of shank)
	09:00 - 11:00	2.00	FISH	RFSH	DRLSUR	L/D fishing tool & Hammer. Cleared floor.
	11:00 - 12:00	1.00	TRIP	BBHD	DRLSUR	BHA/Bit Handling. Picked up used 12 1/4" bit, 8" shock sub, 1-8" collar, 12 1/4" reamer, 8"-collar.
1/24/2003	12:00 - 12:15	0.25	TRIP	WSHR	DRLSUR	Installed rotating head & reamed down to btm. 18' no fill.
	12:15 - 13:30	1.25	DRILL	DOH	DRLSUR	Drill Open Hole w/ 12 1/4" rerun bit while waiting for new bit.
	13:30 - 14:00	0.50	TRIP	BIT	DRLSUR	Trip in / out for Bit. Replaced used bit w/ new Hughes bit.
	14:00 - 16:15	2.25	DRILL	DOH	DRLSUR	Drill Open Hole w/ new 12 1/4" bit.
	16:15 - 16:30	0.25	SURV	TOTC	DRLSUR	Survey with TOTCO Tools
	16:30 - 23:30	7.00	DRILL	DOH	DRLSUR	Drill Open Hole
	23:30 - 23:45	0.25	SURV	TOTC	DRLSUR	Survey with TOTCO Tools
	23:45 - 06:00	6.25	DRILL	DOH	DRLSUR	Drill Open Hole
	06:00 - 06:45	0.75	SURV	TOTC	DRLSUR	Survey with TOTCO Tools
	06:45 - 12:30	5.75	DRILL	DOH	DRLSUR	Drill Open Hole
	12:30 - 12:45	0.25	SURV	TOTC	DRLSUR	Survey with TOTCO Tools
	12:45 - 21:00	8.25	DRILL	DOH	DRLSUR	Drill Open Hole
	21:00 - 21:45	0.75	SURV	TOTC	DRLSUR	Survey with TOTCO Tools. Misrun.
	21:45 - 22:15	0.50	DRILL	DOH	DRLSUR	Drill Open Hole



Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 50

Common Well Name: INDIAN HILLS UNIT NO. 50

Event Name: ORIGINAL DRILLING

Contractor Name: MCVAY DRILLING

Rig Name: MCVAY DRILLING

Start: 7/7/2003

Rig Release:

Rig Number: 4

Spud Date: 7/7/2003

End:

Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
1/24/2003	22:15 - 22:30	0.25	SURV	TOTC	DRLSUR	Survey with TOTCO Tools
	22:30 - 06:00	7.50	DRILL	DOH	DRLSUR	Drill Open Hole
1/25/2003	06:00 - 06:30	0.50	DRILL	DOH	DRLSUR	Drill Open Hole
	06:30 - 07:00	0.50	CIRC	FILL	DRLSUR	Circulate out fill
	07:00 - 07:15	0.25	SURV	TOTC	DRLSUR	Survey with TOTCO Tools
	07:15 - 08:45	1.50	TRIP	BHA	DRLSUR	Pulled rotating head.Trip for BHA
	08:45 - 09:15	0.50	TRIP	LDDP	DRLSUR	LD 3-8" D.C. ,reamer, shock sub, & bit.
	09:15 - 10:15	1.00	WAIT	Crew	CSGSUR	Wait on casers.
	10:15 - 10:45	0.50	SAFETY	SMTG	CSGSUR	Held Safety Meeting & R/U casers.
	10:45 - 11:15	0.50	WELD	FABR	CSGSUR	Tacked btm 2 jts to float collar & guide shoe.
	11:15 - 11:30	0.25	CSG	RUN	CSGSUR	RIH w/ 4 jts of 9 5/8" 38# csg. Casing stopped @ 140'.
	11:30 - 14:00	2.50	STUCK	WPIP	CSGSUR	Work Pipe. Could not get pipe pass 140'.Worked pipe tring to force pipe through. No good. L/D 4 jt's w/ guide shoe 7 float collar.
	14:00 - 14:30	0.50	TRIP	BBHD	CSGSUR	Made up 12 1/4" bit to 1 stand of 6 1/4" collars & 1 jt of D.P.. Making up to kelly w/ rotating head. Look down hole & could see big rock laying in front of hole.
	14:30 - 15:30	1.00	DRILL	WSHR	CSGSUR	Tagged up @ 140'. Drill & reamed through tight spot. But would get stuck when pulling up through it. Kept working pipe. Wedded rock across hole @ 150'.
	15:30 - 16:15	0.75	TRIP	LDDP	CSGSUR	POOH L/D 3-6 1/4" D.C. w/ bit.
	16:15 - 17:15	1.00	WELD	RRPL	CSGSUR	Cut window in casing in cellar.
	17:15 - 18:00	0.75	CEMT	OTHR	CSGSUR	Poured 8 yrs of ready mix. w/ paper. Tring to bridge off on top off rock that was laying across hole so we could drill it out better with out it sticking us up. Mobilizing boulder.
	18:00 - 00:00	6.00	WAIT	CEMT	CSGSUR	Wait on Cement
	00:00 - 01:00	1.00	TRIP	BIT	CSGSUR	RIH w/ 2 stands of D.P. & tagged up on cement @ 135'. Pulled back out off hole.
	01:00 - 05:00	4.00	WAIT	CEMT	CSGSUR	Wait on Cement. (Picked up 12 1/4" bit, bit sub, 1-8" collar, reamer, 2- 6 1/4" D.C. Installed rotating head.Getting ready to drill out cement. & chase to btm.
	05:00 - 06:00	1.00	DRILL	WSHR	CSGSUR	Ream & Drill cement f/ 135' to 182' . Making sure reamer doesn't hang up.
1/26/2003	06:00 - 08:15	2.25	DRILL	WSHR	CSGSUR	Wash/Ream. Would let kelly go down without having to rotating much feach conn. rom 182' to 229'.Then pull back up & ream out. Reamer kept hanging up while going in hole rotating.
	08:15 - 09:00	0.75	TRIP	BBHD	CSGSUR	Set kelly back & POOH L/D reamer. RIH w/ bit.
	09:00 - 11:30	2.50	DRILL	WSHR	CSGSUR	Wash/Ream. Would let kelly go down without having to rotate from 229' to 336'. Then pull up & ream back down kelly.Tagged up soild @ 336'.
	11:30 - 12:30	1.00	TRIP	BIT	CSGSUR	Getting back partial returns.Having to rotate to go down hole. Trip out of hole. POOH L/D 6 1/4" collars.(To have collars to drill out cement from surface.)
	12:30 - 15:30	3.00	WAIT	OTHR	CSGSUR	Wait, Other. LCM Had to come out of Monahans.
	15:30 - 17:30	2.00	TRIP	WTRP	CSGSUR	Wiper Trip. Dumped LCM down hole then push down to top off 336'. Did this 4 times. 5th time LCM Bridged off where conductor & 12 1/4" hole meet. (50').
	17:30 - 19:00	1.50	DRILL	CEMT	CSGSUR	Drill out LCM pill 10' & Pushed on down to 336'.
	19:00 - 19:30	0.50	CEMT	PLUG	CSGSUR	Dumped 10 yards of ready mix with chloride down hole.
	19:30 - 22:45	3.25	WAIT	CEMT	CSGSUR	Wait on Cement
	22:45 - 23:00	0.25	TRIP	BIT	CSGSUR	Trip in hole & tagged up @ 138'.
	23:00 - 23:30	0.50	TRIP	LDDP	CSGSUR	LD 3 6 1/4" collars.
	23:30 - 01:45	2.25	WAIT	CEMT	CSGSUR	Wait on Cement . Ordered 10 more yards off ready mix.
	01:45 - 02:00	0.25	CEMT	PLUG	CSGSUR	.Dumped 10 yards of ready mix chloride down hole. Cement didn't come up much.

Marathon Oil Company
Operations Summary Report

Page 3 of 11

Legal Well Name: INDIAN HILLS UNIT NO. 50
Common Well Name: INDIAN HILLS UNIT NO. 50
Event Name: ORIGINAL DRILLING
Contractor Name: MCVAY DRILLING
Rig Name: MCVAY DRILLING

Start: 7/7/2003
Rig Release:
Rig Number: 4

Spud Date: 7/7/2003
End:
Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
1/26/2003	02:00 - 04:15	2.25	WAIT	CEMT	CSGSUR	Ordered 10 more yards of cement. Waiting on truck to round with ready mix.
	04:15 - 04:30	0.25	CEMT	PLUG	CSGSUR	Dumped 10 yards of ready mix with chloride down hole.
	04:30 - 06:00	1.50	WAIT	CEMT	CSGSUR	Wait on Cement to harden.
1/27/2003	06:00 - 08:30	2.50	WAIT	CEMT	CSGSUR	Wait on Cement
	08:30 - 09:00	0.50	TRIP	BIT	CSGSUR	TIH w/ bit, bit sub, 8" collar, X-over, & picked up 3-6 1/4" D.C.. Tagged cement @ 110'.
	09:00 - 16:45	7.75	DRILL	CEMT	CSGSUR	Drill Cement from 518' to 550' 3/4' returns.
	16:45 - 17:30	0.75	TRIP	LDDP	CSGSUR	POOH L/D 6 jt's drill pipe & RIH w/ 2 stands of DC out of derrick.
	17:30 - 19:15	1.75	DRILL	CEMT	CSGSUR	Drill Cement from 550' to 736' with partial returns. Had to kick in # 2 pump to get good returns to keep hole clean. Still pushing something down hole.
	19:15 - 20:00	0.75	TRIP	LDDP	CSGSUR	POOH L/D 6 jt's drill pipe & RIH w/ 2 stands of DC out of derrick. Still push something down hole.
	20:00 - 21:15	1.25	DRILL	WSHR	CSGSUR	Wash & ream from 736' to 914'.
	21:15 - 22:15	1.00	TRIP	LDDP	CSGSUR	POOH L/D 6 jt's drill pipe & RIH w/ 2 stands DC. out of derrick. Still pushing junk down hole.
	22:15 - 23:15	1.00	DRILL	WSHR	CSGSUR	Wash/Ream from 914' to 1091'.
	23:15 - 00:30	1.25	TRIP	LDDP	CSGSUR	POOH L/D 6 jt's DP. This time the last stand of DC & 2 stands HWDP, & 6 stands of drill pipe went in.
	00:30 - 02:30	2.00	DRILL	WSHR	CSGSUR	Picked up kelly & went in & tagged up @ 1787'. Wash & ream from 1787 to 1815'. Pumped 20 bbl's sweep @ 1780' & 60 bbl sweep @ 1810'
	02:30 - 03:00	0.50	CIRC	HOLE	CSGSUR	Circulate and Condition Hole.
1/28/2003	03:00 - 04:15	1.25	TRIP	BIT	CSGSUR	POOH w/bit L/D 8" collar & 12 1/4" bit.
	04:15 - 06:00	1.75	CSG	RUN	CSGSUR	R/U casers & held safety meeting. R/U 9 5/8" surface casing.
	06:00 - 08:15	2.25	CSG	RUN	CSGSUR	Run 41 jt's 9 5/8" 36#
	08:15 - 09:00	0.75	CIRC	WSHD	CSGSUR	Wash 44' to btm w/ rig pump. had 10' of fill on btm.
	09:00 - 09:30	0.50	SAFETY	SMTG	CSGSUR	Held Safety Meeting & R/U Halliburton. Tested lines to 3500 PSI.
	09:30 - 11:00	1.50	CEMT	OTHR	CSGSUR	Cemented surface. Pumped 10000 scf of N2 ahead to unload hole. Pumped 10 bbl foam wtr spacer, followed w/ 20 bbl gel foam spacer, followed w/ 10 bbl wtr foam spacer, followed w/ 700 sks Nitrofig P+cement w/ 2% CC, 2.5# zone sealant, Tailed w/ 150 sks P+ cement w/ 2% CC Liquid cement. Plug down @ 1045A.M. Cir. over 100 sks foam cement into reserve pit. Capped foam cement in wellbore w/ 75 sks 2% CC w/ 10% Cal-seal.
	11:00 - 14:00	3.00			CSGSUR	Wait on Cement
	14:00 - 15:30	1.50	NUND	DBOP	CSGSUR	Picked up surface stack & cut off 9 5/8" surface pipe. Pulled out surface stack. Cut off conductor pipe.
	15:30 - 17:30	2.00	WELD	WLHD	CSGSUR	Welded on 11" x 9 5/8" 3M SOW Wellhead,
	17:30 - 20:30	3.00	NUND	UBOP	CSGSUR	Install BOP & N/U on wellhead. R/U flowline & shock manifold.
	20:30 - 01:00	4.50	TEST	BOP	CSGSUR	Test BOP's Choke manifolds & valves. R/D testers
	01:00 - 02:15	1.25	TRIP	BBHD	CSGSUR	BHA/Bit Handling. Picked up RR 8 3/4" bit, 6 pt combo, fullwrap, Quad, Short collar, Quad, short collar, Quad, Shock sub.
	02:15 - 04:00	1.75	TRIP	BIT	CSGSUR	TIH w/ PHA w/ 8 3/4" RR bit.
	04:00 - 04:15	0.25	TEST	CSG	CSGSUR	Test Casing w/ rig pump to 1000 PSI O.K.
	04:15 - 05:15	1.00			CSGSUR	Drill float collar / Drill Cement / Drill Shoe to 1810'.
	05:15 - 05:45	0.50	TEST	CSG	CSGSUR	Test shoe jt w/ rig pump to 1000 PSI. O.K.
	05:45 - 06:00	0.25	DRILL	DOH	DRLPR	Finish drilling cement from 1810' to 1815'. Drill Open holew/ 8 3/4" bit from 1815' to 1825'
						Drill Open Hole w/ 8 3/4" bit w/ fluid. Bearing PHA below casing
1/29/2003	06:00 - 08:00	2.00	DRILL	DOH	DRLPR	Blew fluid out of hole to start air drilling.
	08:00 - 08:30	0.50	CIRC	CLN	DRLPR	
	08:30 - 11:30	3.00	DRILL	DOH	DRLPR	Drill Open Hole w/ air.

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 50
 Common Well Name: INDIAN HILLS UNIT NO. 50
 Event Name: ORIGINAL DRILLING
 Contractor Name: MCVAY DRILLING
 Rig Name: MCVAY DRILLING

Start: 7/7/2003
 Rig Release: End:
 Rig Number: 4 Group:

Spud Date: 7/7/2003

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
1/29/2003	11:30 - 11:45	0.25	SURV	TOTC	DRLPR	W.L.S. & BOP drill.
	11:45 - 18:00	6.25	DRILL	DOH	DRLPR	Drill Open Hole w/ 8 3/4" bit w/ air.
	18:00 - 18:15	0.25	SURV	TOTC	DRLPR	W.L.S. & BOP drill.
	18:15 - 00:00	5.75	DRILL	DOH	DRLPR	Drill Open Hole w/ air.
	: - 00:15	0.25	SURV	TOTC	DRLPR	Survey with TOTCO Tools
1/30/2003	00:15 - 06:00	5.75	DRILL	DOH	DRLPR	Drill Open Hole w/ 8 3/4" bit w/ air.
	06:00 - 06:30	0.50	DRILL	AIR	DRLPR	Air Drilling
	06:30 - 07:00	0.50	SURV	TOTC	DRLPR	Survey with TOTCO Tools. Survey tool hung up in string float. Dropped survey tool above bit.
	07:00 - 09:30	2.50	TRIP	BIT	DRLPR	Trip in / out for Bit
	09:30 - 11:15	1.75	TRIP	BIT	DRLPR	Chg out bit & retrieved Survey tool. TIH. Installed rotating head rubber. Washed to bottom. 12' of fill.
1/31/2003	11:15 - 18:30	7.25	DRILL	AIR	DRLPR	Air Drilling
	18:30 - 19:15	0.75	SURV	TOTC	DRLPR	Survey with TOTCO Tools. BOP drill
	19:15 - 03:00	7.75	DRILL	AIR	DRLPR	Air Drilling
	03:00 - 03:30	0.50	SURV	TOTC	DRLPR	Survey with TOTCO Tools
	03:30 - 06:00	2.50	DRILL	AIR	DRLPR	Air Drilling (Mist) avg 20 BPH of fluid. Drilling @ 55'/hr.
	06:00 - 12:45	6.75	DRILL	AIR	DRLPR	Air Drilling 3500 SCF
	12:45 - 13:15	0.50	SURV	TOTC	DRLPR	Survey with TOTCO Tools
	13:15 - 23:45	10.50	DRILL	AIR	DRLPR	Air Drilling 3500 SCF
	23:45 - 00:30	0.75	SURV	TOTC	DRLPR	Survey with TOTCO Tools (Pumping 24 bbls of fluid before running survey to kill drillstring)
	00:30 - 02:00	1.50	CIRC	HOLE	DRLPR	Attempted to unload fluid f/ survey. Pressure climbed t/ 2200 psi. Could not unload hole w/ mist. Switched to fluid. Could not pump down drill string due to plug jets. (Caused due to floats remaining open, fluid back flowed back thru drillstring). L/D 2 jts. Attempted to unplug jets. No success. Set Kelly back.
	02:00 - 06:00	4.00	TRIP	BHA	DRLPR	Trip out of hole to unplug jets.
	06:00 - 06:30	0.50	TRIP	BHA	DRLPR	TOOH. Bit plugged with cutting.
	06:30 - 09:15	2.75	TRIP	BHA	DRLPR	TIH. Loaded drillstring after running DC's in hole. TIH. Washed 30' to bottom.
2/1/2003	09:15 - 03:45	18.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	03:45 - 04:00	0.25	SURV	TOTC	DRLPR	Survey with TOTCO Tools
	04:00 - 06:00	2.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Drop wt back f/ 70K t/ 54K . Drilling @ 24'/hr.
	06:00 - 09:30	3.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary 52K
	09:30 - 10:00	0.50	SURV	TOTC	DRLPR	Survey with TOTCO Tools .BOP drill
	10:00 - 19:15	9.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary 52K
	19:15 - 19:45	0.50	SURV	TOTC	DRLPR	Survey with TOTCO Tools . Misrun
	19:45 - 22:15	2.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary 52K
2/2/2003	22:15 - 22:45	0.50	SURV	TOTC	DRLPR	Survey with TOTCO Tools
	22:45 - 06:00	7.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Drilling ahead @ 29'/hr.(62K)
	06:00 - 08:00	2.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary 62K
	08:00 - 08:30	0.50	SURV	TOTC	DRLPR	Survey with TOTCO Tools
	08:30 - 17:00	8.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary 70K
	17:00 - 17:30	0.50	SURV	TOTC	DRLPR	Survey with TOTCO Tools
	17:30 - 06:00	12.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary 70K
	06:00 - 09:45	3.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
2/3/2003	09:45 - 10:15	0.50	SURV	TOTC	DRLPR	Survey with TOTCO Tools BOP drill
	10:15 - 22:15	12.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	22:15 - 22:45	0.50	SURV	TOTC	DRLPR	Survey with TOTCO Tools
	22:45 - 06:00	7.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Drilling @ 32'/hr,
	06:00 - 07:15	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
2/4/2003	07:15 - 08:00	0.75	SURV	TOTC	DRLPR	Survey with TOTCO Tools

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 50

Common Well Name: INDIAN HILLS UNIT NO. 50

Event Name: ORIGINAL DRILLING

Contractor Name: MCVAY DRILLING

Rig Name: MCVAY DRILLING

Start: 7/7/2003

Rig Release:

Rig Number: 4

Spud Date: 7/7/2003

End:

Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
2/5/2003	08:00 - 11:30	3.50	TRIP	BIT	DRLPR	Trip in / out for Bit
	11:30 - 12:30	1.00	TRIP	BBHD	DRLPR	BHA/Bit Handling
	12:30 - 13:30	1.00	TRIP	BIT	DRLPR	Trip in / out for Bit
	13:30 - 14:30	1.00	RIG	SCDL	DRLPR	Slip and Cut Drill Line
	14:30 - 17:15	2.75	TRIP	BIT	DRLPR	Trip in / out for Bit
	17:15 - 17:45	0.50	CIRC	WSHD	DRLPR	Wash f/ 7480' t/ 7523'.
	17:45 - 01:00	7.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	01:00 - 03:30	2.50	RIG	RCNT	DRLPR	Rig Repair, Contractor owned. Switched to steel pits. Flowline valve was in the closed position. Stem on valve was broke. Has to change out flowline valve.
2/6/2003	03:30 - 06:00	2.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Drilling ahead w/ full returns.
	06:00 - 12:00	6.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Lost complete returns @ 7885' & got back 50% returns @ 7900'.
	12:00 - 12:30	0.50	SURV	TOTC	DRLPR	Survey with TOTCO Tools & BOP drill.
	12:30 - 23:30	11.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary . Tight spot @ 8286.
2/7/2003	23:30 - 23:45	0.25	DRILL	WSHR	DRLPR	Wash/Ream.
	23:45 - 06:00	6.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Losing 176 BPH. 75% returns.
	06:00 - 08:00	2.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	08:00 - 09:30	1.50	CIRC	HOLE	DRLPR	Pump 20 bbl sweep & Circulate and Condition Hole
	09:30 - 11:15	1.75	TRIP	LOGS	DRLPR	Round trip for Logs. Short trip pipe, 20 stands
	11:15 - 11:30	0.25	DRILL	WSHR	DRLPR	Picked up kelly & washed down 40' to btm. No fill.
	11:30 - 13:15	1.75	CIRC	HOLE	DRLPR	Circulate and Condition Hole for logs. Spotted 40bbl pill on btm.
	13:15 - 17:45	4.50	TRIP	LOGS	DRLPR	Dropped Totco
	17:45 - 01:00	7.25	LOG	OPEN	EVALPR	Trip for Logs. Strapped out of hole.L/D shock sub , bit sub, & bit. Held safety meeting & R/U loggers & logged well. Standard Open Hole Logging. (Logs Spectral Density, Dual Spaced Neutron, Spectral Gamma Ray, ran f/ 8400' to surface). R/D loggers.
	01:00 - 01:45	0.75	WAIT	ORDR	EVALPR	Wait on Orders. Decided to side track well.
2/8/2003	01:45 - 04:00	2.25	TRIP	BIT	PLUGAB	TIH w/ drillpipe open ended w/ 78 stands out of derrick.Total pipe 7399.68'.
	04:00 - 05:15	1.25	WAIT	EQUIP	PLUGAB	Wait on Equipment (logging truck & water truck.) to move out of way to put pipe on pipe rack.Strapped pipe & put on rack.Picked up in V-door.
	05:15 - 06:00	0.75	TRIP	PUDP	PLUGAB	PU 17 jts of 4 1/2" drillpipe . Total of pipe is 535.32'.
	06:00 - 08:00	2.00	CIRC	HOLE	PLUGAB	Circulate and Condition Hole .
	08:00 - 08:30	0.50	CEMT	PLUG	PLUGAB	Setting Cement Plugs . Btm of DP @ 7935'. Pumped 125 sks of Premium H w/ 4# gil.
	08:30 - 09:00	0.50	TRIP	BIT	PLUGAB	POOH w/ 15 stands.
	09:00 - 14:00	5.00	WAIT	CEMT	PLUGAB	Wait on Cement. Picked up kelly & cir well bore while waiting on cement.
	14:00 - 14:30	0.50	TRIP	BIT	PLUGAB	TIH w/ 14 stands & tagged cement @ 7835'.
	14:30 - 16:00	1.50	CIRC	HOLE	PLUGAB	Picked up kelly & Circulate and Condition Hole .
	16:00 - 16:15	0.25	TRIP	BIT	PLUGAB	Set kelly back & POOH L/D 1 stand of DP..RIH w/ 1 stand of DP in derrick. Btm of DP @ 7815'. R/U L/D machine. R/U Halliburton.
	16:15 - 16:30	0.25	CEMT	PLUG	PLUGAB	Setting Cement Plugs. Btm of DP @ 7815'. Pumped 125 sks of Premium H w/ 4# gil.
	16:30 - 17:00	0.50	TRIP	BIT	PLUGAB	POOH L/D 15 jt's.
	17:00 - 18:00	1.00	CIRC	HOLE	PLUGAB	Picked up kelly & Circulate and Condition Hole.
	18:00 - 20:00	2.00	TRIP	BIT	PLUGAB	POOH L/D 97 jt's DP on rack.
	20:00 - 20:30	0.50	CIRC	HOLE	PLUGAB	Circulate and Condition Hole.
	20:30 - 21:00	0.50	CEMT	PLUG	PLUGAB	Set kick off cement plugs. Btm of DP @ 4272.18'. Cemented / 300 sks of Premium +(500' cement plug)
	21:00 - 21:15	0.25	TRIP	BIT	PLUGAB	POOH L/D 20 jts of DP.
	21:15 - 22:00	0.75	CIRC	HOLE	PLUGAB	Circulate and Condition Hole

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 50
 Common Well Name: INDIAN HILLS UNIT NO. 50
 Event Name: ORIGINAL DRILLING
 Contractor Name: MCVAY DRILLING
 Rig Name: MCVAY DRILLING

Start: 7/7/2003
 Rig Release: End:
 Rig Number: 4 Group:

Spud Date: 7/7/2003

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
2/8/2003	22:00 - 23:30	1.50	TRIP	BIT	PLUGAB	POOH L/D 33 jt's of DP.
	23:30 - 01:30	2.00	TRIP	BIT	PLUGAB	R/D L/D Machine & POOH w/ 27 stands of DP.
	01:30 - 02:30	1.00	TRIP	BIT	PLUGAB	TIH W/ 10 stands DC w/ jars.
	02:30 - 03:00	0.50	TRIP	LDDP	PLUGAB	R/U L/D machine.
	03:00 - 03:30	0.50	TRIP	LDDP	PLUGAB	POOH LD DC.
2/9/2003	03:30 - 06:00	2.50	INSPCT	DRLC	DRLPR	Inspect Drill Collars
	06:00 - 07:30	1.50	CHECK	BHA	DRLPR	Strapped ,ID & OD collars that we're going to pick up w/ HWDP.
	07:30 - 10:30	3.00	TRIP	BBHD	DRLPR	Picked up new bit w/ bit sub, 12 DC, 19 jts of HWDP.
	10:30 - 11:30	1.00	TRIP	BIT	DRLPR	TIH w/ DP out of derrick. Tagged cement @ 3645. L/D 3 jts .
	11:30 - 12:00	0.50	DRILL	WSHR	DRLPR	Picked up kelly, broke cir, & wash 18' to top of cement.
	12:00 - 14:45	2.75	DRILL	CEMT	DRLPR	Drill Cement .
	14:45 - 15:30	0.75	CIRC	CLN	DRLPR	Pumped old sweep out of mud pit ,Circulate Clean
	15:30 - 17:00	1.50	TRIP	BHA	DRLPR	Trip for BHA
	17:00 - 19:00	2.00	TRIP	BBHD	DRLPR	Picked up diamond bit , 2.38 degree motor, teleco, monel DC w/ pony, & check motor.
	19:00 - 19:30	0.50	DRILL	WSHR	DRLPR	Picked up 2 jt's DP & rotating head. Washed down 8' to btm.
2/10/2003	19:30 - 06:00	10.50	DRILL	TIME	DRLPR	Time Drill . 30% formation.
	06:00 - 13:30	7.50	DRILL	TIME	DRLPR	Time Drill
	13:30 - 14:45	1.25	SURV	GYRO	DRLPR	Survey with GYRO system. Survey from 3660' to surface.
	14:45 - 20:45	6.00	DRILL	TIME	DRLPR	Time Drill
	20:45 - 23:15	2.50	TRIP	BHA	DRLPR	Trip for BHA .
	23:15 - 23:30	0.25	TRIP	BBHD	DRLPR	L/D Diamond bit & 2.38 motor.
	23:30 - 00:30	1.00	TRIP	BBHD	DRLPR	Picked up 8 3/4" 47HPS bit, 1.3 motor, & 6 1/2" shock sub, screwed on to Teleco. Check motor O.K.
	00:30 - 02:30	2.00	TRIP	BIT	DRLPR	Trip in w/ bit & motor.
	02:30 - 03:00	0.50	DRILL	WSHR	DRLPR	Picked up kelly. Wash down to btm & ream side track.
	03:00 - 03:15	0.25	DRILL	DOHS	DRLPR	Drill Open Slide
2/11/2003	03:15 - 03:45	0.50	SURV	MWD	DRLPR	Cir & tried to survey.
	03:45 - 04:15	0.50	DRILL	DOHS	DRLPR	Drill Open Slide
	04:15 - 05:15	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	05:15 - 05:30	0.25	SURV	MWD	DRLPR	Conn & survey
	05:30 - 06:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide. 207 GRID.
	06:00 - 07:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	07:00 - 07:15	0.25	SURV	TOTC	DRLPR	Survey with TOTCO Tools
	07:15 - 07:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide
	07:30 - 09:00	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	09:00 - 09:15	0.25	SURV	TOTC	DRLPR	Survey with TOTCO Tools. Wouldn't take survey. Pump press got to 1800 psi on 66 strokes.
	09:15 - 10:45	1.50	TRIP	BHA	DRLPR	POOH to check Teleco & motor.
	10:45 - 11:15	0.50	TRIP	BBHD	DRLPR	Unplug bit & L/D Teleco.
	11:15 - 15:30	4.25	WAIT	EQUIP	DRLPR	Wait on Equipment.
	15:30 - 16:00	0.50	TRIP	BBHD	DRLPR	Picked up new rebuilt Teleco & made up to 1.3 motor. Check motor & Teleco. O.K.
	16:00 - 18:15	2.25	TRIP	BIT	DRLPR	TIH w/ 2nd lateral BHA.
	18:15 - 21:00	2.75	DRILL	WSHR	DRLPR	L/D 5 jt's, Reamed f/ 3721' to 3863'
	21:00 - 22:45	1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	22:45 - 23:15	0.50	DRILL	DOHS	DRLPR	Drill Open Slide. H/S
	23:15 - 00:15	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	00:15 - 00:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	00:30 - 00:45	0.25	DRILL	DOHS	DRLPR	Drill Open Slide. H/S
	00:45 - 01:45	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	01:45 - 02:15	0.50	DRILL	DOHS	DRLPR	Drill Open Slide. 5L
	02:15 - 03:15	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 50

Common Well Name: INDIAN HILLS UNIT NO. 50

Event Name: ORIGINAL DRILLING

Contractor Name: MCVAY DRILLING

Rig Name: MCVAY DRILLING

Start: 7/7/2003

Rig Release:

Rig Number: 4

Spud Date: 7/7/2003

End:

Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
2/11/2003	03:15 - 03:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	03:30 - 04:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide. 10L
	04:00 - 05:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	05:00 - 05:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide. 10L
	05:30 - 06:00	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
2/12/2003	06:00 - 06:30	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	06:30 - 06:45	0.25	SURV	MWD	DRLPR	Conn. & Survey
	06:45 - 08:15	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	08:15 - 08:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide .20L
	08:45 - 09:30	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	09:30 - 09:45	0.25	SURV	MWD	DRLPR	Conn. & Survey with MWD Tools
	09:45 - 10:00	0.25	DRILL	DOHS	DRLPR	Drill Open Slide .20L
	10:00 - 11:15	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	11:15 - 12:00	0.75	DRILL	DOHS	DRLPR	Drill Open Slide .30L
	12:00 - 13:15	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	13:15 - 13:30	0.25	SURV	MWD	DRLPR	Conn. & Survey with MWD Tools
	13:30 - 14:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide .20L
	14:00 - 15:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	15:00 - 15:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide .20L
	15:30 - 16:00	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	16:00 - 16:15	0.25	SURV	MWD	DRLPR	Conn. & Survey with MWD Tools
	16:15 - 17:00	0.75	DRILL	DOHS	DRLPR	Drill Open Slide .40L
	17:00 - 17:45	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	17:45 - 18:15	0.50	DRILL	DOHS	DRLPR	Drill Open Slide .30L
	18:15 - 19:00	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	19:00 - 19:15	0.25	SURV	MWD	DRLPR	Conn. & Survey with MWD Tools
	19:15 - 19:30	0.25	DRILL	DOHS	DRLPR	Drill Open Slide .30L
	19:30 - 20:30	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	20:30 - 21:00	0.50	DRILL	DOHS	DRLPR	Drill Open Slide .40L
	21:00 - 21:30	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	21:30 - 21:45	0.25	SURV	MWD	DRLPR	Conn. & Survey with MWD Tools
	21:45 - 22:15	0.50	DRILL	DOHS	DRLPR	Drill Open Slide .30L
	22:15 - 23:00	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	23:00 - 23:30	0.50	DRILL	DOHS	DRLPR	Drill Open Slide .30L
	23:30 - 00:30	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	00:30 - 00:45	0.25	SURV	MWD	DRLPR	Conn. & Survey with MWD Tools
	00:45 - 01:15	0.50	DRILL	DOHS	DRLPR	Drill Open Slide .35L
	01:15 - 02:15	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	02:15 - 02:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide .40L
	02:45 - 03:15	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	03:15 - 03:30	0.25	SURV	MWD	DRLPR	Conn. & Survey with MWD Tools
	03:30 - 03:45	0.25	DRILL	DOHS	DRLPR	Drill Open Slide .40L
	03:45 - 04:45	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	04:45 - 05:00	0.25	DRILL	DOHS	DRLPR	Drill Open Slide .45L
	05:00 - 06:00	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
2/13/2003	06:00 - 06:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	06:15 - 08:15	2.00	DRILL	DOHS	DRLPR	Drill Open Slide 45L
	08:15 - 08:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	08:30 - 10:30	2.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	10:30 - 10:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	10:45 - 16:00	5.25	DRILL	DOHS	DRLPR	Drill Open Slide 35L
	16:00 - 18:15	2.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	18:15 - 18:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 50

Common Well Name: INDIAN HILLS UNIT NO. 50

Event Name: ORIGINAL DRILLING

Contractor Name: MCVAY DRILLING

Rig Name: MCVAY DRILLING

Start: 7/7/2003

Rig Release:

Rig Number: 4

Spud Date: 7/7/2003

End:

Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
2/13/2003	18:30 - 18:45	0.25	DRILL	DOHS	DRLPR	Drill Open Slide HS
	18:45 - 01:00	6.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	01:00 - 01:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	01:15 - 01:45	0.50	DRILL	DOHS	DRLPR	Drill Open Slide HS
	01:45 - 03:45	2.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	03:45 - 04:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	04:00 - 04:15	0.25	DRILL	DOHS	DRLPR	Drill Open Slide HS
2/14/2003	04:15 - 06:00	1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	06:00 - 09:00	3.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	09:00 - 09:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	09:15 - 11:15	2.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	11:15 - 11:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	11:30 - 14:15	2.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	14:15 - 14:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	14:30 - 15:30	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	15:30 - 16:00	0.50	CHECK	BHA	DRLPR	Perform Check of BHA
	16:00 - 19:00	3.00	TRIP	MOTR	DRLPR	Trip for Motor report
	19:00 - 20:30	1.50	TRIP	BBHD	DRLPR	BHA/Bit Handling New bit & motor. Tst motor. Dailed t/ 1.3
	20:30 - 23:00	2.50	TRIP	BIT	DRLPR	Trip in / out for Bit
	23:00 - 23:30	0.50	CIRC	CLN	DRLPR	Break circ. Washed 42' t/ bottom. No fill.
	23:30 - 00:30	1.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	00:30 - 00:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	00:45 - 02:15	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	02:15 - 02:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
2/15/2003	02:30 - 04:30	2.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary 5505'-5508'. Slid-5508'-5517', Rot- 5517'-5568'.
	04:30 - 04:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	04:45 - 06:00	1.25	DRILL	DOHR	DRLPR	Drill Open Hole. Slid- 5568'-5576'. Rot- 5576'-5600. Drilling @ 26'/hr.
	06:00 - 08:30	2.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	08:30 - 08:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	08:45 - 10:30	1.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	10:30 - 10:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	10:45 - 12:15	1.50	DRILL	DOHR	DRLPR	Slid f/ 5758'-5765', Rot- 5765'-5821'.
	12:15 - 12:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	12:30 - 14:15	1.75	DRILL	DOHR	DRLPR	Slid f/ 5821'-29', Rot- 5829'-5885'.
	14:15 - 14:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	14:30 - 16:00	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	16:00 - 16:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	16:15 - 18:00	1.75	DRILL	DOHD	DRLPR	Drill Open Hole Directional/Slid f/ 5949'-5958'. Rot- 5958'-6012'.
	18:00 - 18:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	18:15 - 19:15	1.00	DRILL	DOHD	DRLPR	Drill Open Hole Directional/Slid- 6012'-6020'. Rot- 6020'-6044'.
	19:15 - 19:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	19:30 - 20:45	1.25	DRILL	DOHD	DRLPR	Drill Open Hole Directional/Slid- 6044'-6052', Rot- 6052'-6076'.
	20:45 - 21:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	21:00 - 22:00	1.00	DRILL	DOHD	DRLPR	Drill Open Hole Directional/Slid- 6076'-84', Rot- 6084'-6108'.
	22:00 - 22:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	22:15 - 23:45	1.50	DRILL	DOHD	DRLPR	Drill Open Hole Directional/Slid- 6108'-6118', Rot- 6118'-6140'.
	23:45 - 00:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	00:00 - 02:00	2.00	DRILL	DOHD	DRLPR	Drill Open Hole Directional/Slid-6140'-48', Rot- 6148'-6203'.
	02:00 - 02:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	02:15 - 03:45	1.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	03:45 - 04:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
2/16/2003	04:00 - 06:00	2.00	DRILL	DOHD	DRLPR	Drill Open Hole Directional/Slid-6266'-6274', Rot- 6274'-6325'.
	06:00 - 08:30	2.50	DRILL	DOHD	DRLPR	Drill Open Hole Rot- 6325'-6361'. Slid- 6361'-6369'. Rot- 6369'-6393'.

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 50

Common Well Name: INDIAN HILLS UNIT NO. 50

Event Name: ORIGINAL DRILLING

Contractor Name: MCVAY DRILLING

Rig Name: MCVAY DRILLING

Start: 7/7/2003

Rig Release:

Rig Number: 4

Spud Date: 7/7/2003

End:

Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
2/16/2003	08:30 - 08:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	08:45 - 10:00	1.25	DRILL	DOHD	DRLPR	Drill Open Hole Directional Slid- 6393'-6403'. Rot- 6403'-6425'.
	10:00 - 10:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	10:15 - 12:45	2.50	DRILL	DOHD	DRLPR	Drill Open Hole Directional Slid- 6425'-35'. Rot- 6435'-6519'.
	12:45 - 13:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	13:00 - 16:00	3.00	DRILL	DOHD	DRLPR	Drill Open Hole Directional Slid-6519'-6529'. Rot- 6529'-6583'.
	16:00 - 16:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	16:15 - 18:15	2.00	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	18:15 - 18:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	18:30 - 21:00	2.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	21:00 - 21:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	21:15 - 23:30	2.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	23:30 - 23:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	23:45 - 02:15	2.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	02:15 - 02:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	02:30 - 05:00	2.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	05:00 - 05:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	05:15 - 06:00	0.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. Drilling @ 25'/hr.
2/17/2003	06:00 - 07:45	1.75	DRILL	DOHD	DRLPR	Drill Open Hole Directional. Rot.
	07:45 - 08:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	08:00 - 10:15	2.25	DRILL	DOHR	DRLPR	Drill Open Hole Directional. Slid f/ 6964'-74'. Rot- 6974'-7028'.
	10:15 - 10:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	10:30 - 12:45	2.25	DRILL	DOHR	DRLPR	Drill Open Hole Directional. Slid f/ 7028'-34'. Rot-7034'-7092'.
	12:45 - 13:30	0.75	SURV	MWD	DRLPR	Survey with MWD Tools. Repair oiler 1/2 hr.
	13:30 - 15:45	2.25	DRILL	DOHR	DRLPR	Drill Open Hole Directional. Rot-7092'-7156'.
	15:45 - 16:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	16:00 - 18:45	2.75	DRILL	DOHD	DRLPR	Drill Open Hole Directional. Rot.
	18:45 - 19:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	19:00 - 20:15	1.25	DRILL	DOHD	DRLPR	Drill Open Hole Directional. Rot.
	20:15 - 20:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	20:30 - 22:00	1.50	DRILL	DOHD	DRLPR	Drill Open Hole Directional. Slid- f/ 7251'-61'. Rot- 7261'-7283'.
	22:00 - 22:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	22:15 - 23:15	1.00	DRILL	DOHD	DRLPR	Drill Open Hole Directional. Slid- 7283'-93'. Rot f/ 7293'-7310'.
	23:15 - 00:30	1.25	SURV	MWD	DRLPR	Survey with MWD Tools
	00:30 - 02:00	1.50	DRILL	DOHD	DRLPR	Drill Open Hole Directional. Slid- 7314'-7324'. Rot- 7324'-7345'.
	02:00 - 02:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	02:15 - 04:00	1.75	DRILL	DOHD	DRLPR	Drill Open Hole Directional. Slid-7345'-55', Rot- 7355' t/ 7377'.
	04:00 - 04:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	04:15 - 06:00	1.75	DRILL	DOHD	DRLPR	Drill Open Hole Directional. Slid- 7377'-89'. Rot 7389'-7410'. Drilling @ 21'/hr.
2/18/2003	06:00 - 08:15	2.25	DRILL	DOHD	DRLPR	Drill Open Hole Directional Rot.
	08:15 - 08:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	08:30 - 10:00	1.50	DRILL	DOHD	DRLPR	Drill Open Hole Directional Slid- 7441'-7452'. Rot- 7452'-7473'.
	10:00 - 10:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	10:15 - 12:45	2.50	DRILL	DOHD	DRLPR	Drill Open Hole Directional Slid- 7473'-7483'. Rot- 7483'-7505'.
	12:45 - 13:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	13:00 - 14:15	1.25	DRILL	DOHD	DRLPR	Drill Open Hole Directional Slid- 7505'-7517'. Rot- 7517'-7537'.
	14:15 - 14:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	14:30 - 15:15	0.75	DRILL	DOHD	DRLPR	Drill Open Hole Directional Slid-7537'-7547'. Rot- 7547'-7568'.
	15:15 - 15:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	15:30 - 17:30	2.00	DRILL	DOHD	DRLPR	Drill Open Hole Directional Rot
	17:30 - 17:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	17:45 - 20:30	2.75	DRILL	DOHD	DRLPR	Drill Open Hole Directional Slid- 7662'-7672'. Rot- 7672'-7726'

Operations Summary Report

Legal Well Name: INDIAN HILLS UNIT NO. 50

Common Well Name: INDIAN HILLS UNIT NO. 50

Event Name: ORIGINAL DRILLING

Contractor Name: MCVAY DRILLING

Rig Name: MCVAY DRILLING

Start: 7/7/2003

Rig Release:

Rig Number: 4

Spud Date: 7/7/2003

End:

Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
2/18/2003	20:30 - 20:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	20:45 - 23:00	2.25	DRILL	DOHD	DRLPR	Drill Open Hole Directional Rot.
	23:00 - 23:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	23:15 - 01:15	2.00	DRILL	DOHD	DRLPR	Drill Open Hole Directional Rot.
	01:15 - 01:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	01:30 - 04:15	2.75	DRILL	DOHD	DRLPR	Drill Open Hole Directional Slid- 7853'-63'. Rot- 7863'-7917'.
	04:15 - 04:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	04:30 - 05:15	0.75	DRILL	DOHD	DRLPR	Drill Open Hole Directional Slid- 7917'-27'. Rot t/ 7934'
	05:15 - 05:30	0.25	CIRC	CLN	DRLPR	Circulate Clean
	05:30 - 06:00	0.50	TRIP	BIT	DRLPR	Trip in / out for Bit
2/19/2003	06:00 - 09:30	3.50	TRIP	BIT	DRLPR	Trip out for Bit
	09:30 - 10:00	0.50	TRIP	BBHD	DRLPR	BHA/Bit Handling
	10:00 - 10:30	0.50	TRIP	BIT	DRLPR	Trip in w/ DC's.
	10:30 - 11:45	1.25	RIG	SCDL	DRLPR	Slip and Cut Drill Line
	11:45 - 13:30	1.75	TRIP	BIT	DRLPR	Trip in w/ new Bit.
	13:30 - 13:45	0.25	DRILL	WSHR	DRLPR	Wash/Ream 30' to bottom. No fill.
	13:45 - 15:00	1.25	DRILL	DOHD	DRLPR	Drill Open Hole Directional Rot f/ 7934'-7965'. Lost all returns. Drilled f/ 7965'-85'. Regained full returns after 10 mins. Pumped 30 bbl LCM pill. Rot f/ 7985' t/ 7979'.
	15:00 - 15:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	15:15 - 16:15	1.00	DRILL	DOHD	DRLPR	Drill Open Hole Directional Rot. Full returns.
	16:15 - 16:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
2/20/2003	16:30 - 19:30	3.00	DRILL	DOHD	DRLPR	Drill Open Hole Directional Rot.
	19:30 - 19:45	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	19:45 - 21:00	1.25	DRILL	DOHD	DRLPR	Drill Open Hole Directional Rot.
	21:00 - 21:15	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	21:15 - 22:45	1.50	DRILL	DOHD	DRLPR	Drill Open Hole Directional Rot. Start mud up @ 8250'.
	22:45 - 23:00	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	23:00 - 23:15	0.25	DRILL	DOHD	DRLPR	Drill Open Hole Directional Rot.
	23:15 - 23:30	0.25	SURV	MWD	DRLPR	Survey with MWD Tools
	23:30 - 01:30	2.00	DRILL	DOHD	DRLPR	Drill Open Hole Directional Rot.
	01:30 - 04:00	2.50	SURV	MWD	DRLPR	Survey with MWD Tools
2/21/2003	04:00 - 06:00	2.00	DRILL	DOHD	DRLPR	Drill Open Hole Directional Rot. Full returns. Drilling @ 22'/hr.
	06:00 - 06:30	0.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	06:30 - 06:45	0.25	SURV	MWD	DRLPR	Conn. & Survey with MWD Tools
	06:45 - 09:30	2.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	09:30 - 09:45	0.25	SURV	MWD	DRLPR	Conn. & Survey with MWD Tools
	09:45 - 12:30	2.75	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	12:30 - 12:45	0.25	SURV	MWD	DRLPR	Conn. & Survey with MWD Tools
	12:45 - 15:15	2.50	DRILL	DOHR	DRLPR	Drill Open Hole Rotary
	15:15 - 15:30	0.25	SURV	MWD	DRLPR	Conn. & Survey with MWD Tools
	15:30 - 16:45	1.25	DRILL	DOHR	DRLPR	Drill Open Hole Rotary. T.D. w/ 8 3/4" bit.
2/21/2003	16:45 - 18:15	1.50	CIRC	HOLE	DRLPR	Circulate and Condition Hole
	18:15 - 19:30	1.25	TRIP	BIT	DRLPR	10 stand short trip.
	19:30 - 19:45	0.25	DRILL	WSHR	DRLPR	Break cir & wash down 41' to btm no fill.
	19:45 - 21:15	1.50	CIRC	HOLE	DRLPR	Circulate and Condition Hole to log.
	21:15 - 01:00	3.75	TRIP	LOGS	DRLPR	Trip for Logs
	01:00 - 02:00	1.00	TRIP	BBHD	DRLPR	BHA/Bit Handling. L/D 2- 6 1/2" DC , 6 1/2" monel, Teleco, Short collar, Shock sub, Motor & bit.
	02:00 - 02:30	0.50	SAFETY	SMTG	EVALPR	Safety Meeting
	02:30 - 06:00	3.50	LOG	OPEN	EVALPR	R/U loggers & Standard Open Hole Logging
	06:00 - 07:30	1.50	LOG	OPEN	EVALPR	Standard Open Hole Logging. Ran Spectral Density, Dual Spaced Neutron, Spectral Gamma Ray. Logged f/ 8540' to 3500'.

Operations Summary Report

Rig Number: 4

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
2/21/2003	07:30 - 08:15	0.75	LOG	OTHR	EVALPR	R/D loggers .

Marathon Oil Company
Operations Summary Report

Page 1 of 1

Legal Well Name: INDIAN HILLS UNIT NO. 50
Common Well Name: INDIAN HILLS UNIT NO. 50
Event Name: ORIGINAL COMPLETION
Contractor Name: MCVAY DRILLING
Rig Name: MCVAY DRILLING

Start: 7/20/2003
Rig Release:
Rig Number: 4
Spud Date: 7/7/2003
End:
Group:

Date	From - To	Hours	Code	Sub Code	Phase	Description of Operations
2/21/2003	08:15 - 12:45	4.50	TRIP	BIT	EVALPR	TIH w/ bit.
	12:45 - 13:15	0.50	TRIP	WSHR	EVALPR	Installed rubber & broke cir. Wash 30' to btm. w/ 4' fill.
	13:15 - 14:45	1.50	CIRC	HOLE	EVALPR	Pump sweep & Circulate and Condition Hole
	14:45 - 21:00	6.25	TRIP	LDDP	EVALPR	Set kelly back & POOH LD DP & DC.
	21:00 - 22:15	1.25	EQUIP	CHAN	CSGPRO	Change out pipe rams w/ 7" casing rams. Cleaned off flow from subs & equipment not needed when running casing.
2/22/2003	22:15 - 22:45	0.50	SAFETY	SMTG	CSGPRO	Held Safety Meeting before R/U casers & running pipe.
	22:45 - 06:00	7.25	CSG	RUN	CSGPRO	Running 7" 26# & 23# K-55 Casing w/ float guide shoe & float collar.
	06:00 - 08:15	2.25	CSG	RUN	CSGPRO	Run Casing to 8700'. Total of 201 jts 7 7" casing 26# & 23#. Installed swedge on last 2 jt's.
	08:15 - 09:45	1.50	CIRC	WSHD	CSGPRO	Wash down last jt & cir. gas out of hole w/ rig pump.
	09:45 - 10:30	0.75	SAFETY	SMTG	CSGPRO	Safety Meeting & R/U cementers. Tested lines to 4000 PSI.
	10:30 - 13:30	3.00	CEMT	PRIM	CSGPRO	Primary Cementing Operations. Pumped 50000 SCF of Nitrogen ahead. Followed w/ 10 bbls of nitrified 10% Cad2 wtr, 10 bbl nitrified fresh wtr spacer, followed w/ 1000 gals of Super flush 101 nitrified, 10 bbl nitrified fresh wtr spacer, followed w/ 100 sks acid soluble cement nitrified, 950 sks prem cement nitrified. Tailed w/ 120 sks super H liquid cement. Plug down @ 12:45 HR cir. no cement. Nitrified super flush @ surface. Pumped 75 sks Prem. + w/ cal-seal as cap from surface.
	13:30 - 16:30	3.00	WAIT	CEMT	CSGPRO	Wait on Cement. Jetted pit & started R/D rig , getting ready to pick up stack while waiting on cement.
	16:30 - 21:00	4.50	NUND	DBOP	CSGPRO	N/D BOP & picked up stack. Set slips. Cut of 7" csg. Remove BOP Equipment. Installed tbg hanger & tested to 3000 psi.
	21:00 - 22:00	1.00	RIG*	DMOB	RDMO	Demob Rig, Rigging down rig . Released rig from well @ 2200Hrs

Casing Report

Legal Well Name: INDIAN HILLS UNIT NO. 50
 Common Well Name: INDIAN HILLS UNIT NO. 50
 Event Name: ORIGINAL DRILLING

Report #: 1
 Start: 7/7/2003

Spud Date: 7/7/2003
 Report Date: 1/28/2003
 End:

General Information

String Type: SURFACE CASING	Permanent Datum: KELLY BUSHING	Hole Size:	Hole TMD: 1,815.0 (ft)
Hole TVD: 1,815.0 (ft)	KB-Datum: 0.00 (ft)	Water TMD:	Str Wt on Slips: (lb)
Ground Level: 4,118.00 (ft)	CF Elevation: (ft)	Liner Overlap: (ft)	Max Hole Angle: 1.75 (°)
Circ Hours: 0.50 (hr)	Mud Lost: (bbl)	KB to Cutoff: (ft)	Days From Spud: 8 (days)

Casing Flange / Wellhead

Manufacturer: WOOD GROUP	Model: FMC C-22	Top Hub/Flange: (in) / (psi)
Hanger Model: 9 5/8" SOW	Packoff Model:	BTM Hub/Flange: (in) / (psi)

Actual TMD Set: 1,814.950 (ft)

Integral Casing Detail

Item	Size (in)	Weight (lb/ft)	Grade	Drift (in)	Threads	JTS	Length (ft)	Top (ft)	MU Torq. (ft-lbf)	THD	Manufacturer	Model	Cond.	Max OD (in)	Min ID (in)	Comp. Name
CASING JOINT(S)	9.625	36.0	J-55	8.921	8 ROUND	40	1,791.150							10.625	8.765	
CASING FLOAT COLLA	9.625			8.921	8 ROUND		1.450	1,791.15						10.625	8.765	
CASING JOINT(S)	9.625	36.0	J-55	8.921	8 ROUND	1	21.150	1,792.60						10.625	8.765	
Texas Pattern	9.625			8.921	Weld-on		1.200	1,813.75						10.625	8.765	

Non-Integral Casing Accessories

Accessory	Manufacturer	Number	Spacing (ft)	Interval		How Fixed
				Top (ft)	Bottom (ft)	
CENTRALIZER	Weatherford	9	220.0			CLAMPED

Marathon Oil Company

Cementing Report

Page 1 of 2

Legal Well Name: INDIAN HILLS UNIT NO. 50	Report #: 1	Spud Date: 7/7/2003
Common Well Name: INDIAN HILLS UNIT NO. 50	Start: 7/7/2003	Report Date: 1/28/2003
Event Name: ORIGINAL DRILLING		End:

Cement Job Type: Primary

Primary	Squeeze Open Hole	Squeeze Casing	Plug
Hole Size: 12.250 (in)	Hole Size:	Hole Size:	Hole Size:
TMD Set: 1,815.0 (ft)	SQ TMD: (ft)	TMD Set:	Top Set: (ft)
Date Set: 1/24/2003	SQ Date:	Date Set:	BTM set: (ft)
Csg Type: SURFACE CASING	SQ Type:	Csg Type:	Plug Date:
Csg Size: 9.625 (in)		SQ TMD:	Plug Type:
		SQ Date:	Drilled Out:
Cmtd. Csg: SURFACE CASING	Cmtd. Csg:	Cmtd. Csg:	Cmtd. Csg:

Cement Co: HALLIBURTON	Cementer:	Pipe Movement: NO MOVEMENT
------------------------	-----------	----------------------------

Pipe Movement

Rot Time Start: :	Time End: :	RPM:	Init Torque: (ft-lbf)	Avg Torque: (ft-lbf)	Max Torque: (ft-lbf)
Rec Time Start: :	Time End: :	SPM:	Stroke Length: (ft)	Drag Up: (lb)	Drag Down: (lb)

Stage No: 1 of 1

Type: PRIM CMT 1ST STAGE	Start Mix Cmt: 09:30	Disp Avg Rate: 6.00 (bbl/min)	Returns:
Volume Excess %: 250.00	Start Slurry Displ: :	Disp Max Rate: (bbl/min)	Total Mud Lost: (bbl)
Meas. From:	Start Displ: :	Bump Plug: Y	Cmt Vol to Surf: (bbl)
Time Circ Prior	End Pumping: :	Press Prior: 380 (psi)	
To Cementing: 0.30	End Pump Date:	Press Bumped: 650 (psi)	Ann Flow After: N
Mud Circ Rate: (gpm)	Top Plug: N	Press Held: 5 (min)	Mixing Method:
Mud Circ Press: (psi)	Bottom Plug: Y	Float Held: Y	Density Meas By:

Mud Data

Type: Density: (ppg) Visc: (s/qt)	PV/YP: (cp)/(lb/100ft ²) Gels 10 sec: (lb/100ft ²) Gels 10 min: (lb/100ft ²)	Bottom Hole Static Temperature: (°F)
Bottom Hole Circulating Temperature: (°F)		
Displacement Fluid Type: FRESH WATER	Density: 8.4 (ppg)	Volume: 138.00 (bbl)

Stage No: 1 Slurry No: 1 of 2

Slurry Data

Fluid Type: LEAD	Description: FOAM	Class: CLASS C	Purpose: FILLER CEM
Slurry Interval: (ft)	To: 1,700.00 (ft) Cmt Vol: 700 (sk)	Density: 14.8 (ppg)	Yield: 1.34 (ft ³ /sk)
Water Source: Frac-tanks	Slurry Vol: 10.0 (bbl)	Water Vol: 167.0 (bbl)	Other Vol: ()
			Mix Water: 6.36 (gal/sk)
			Foam Job: Y

Test Data

	Time	Temp	Pressure
Thickening Time:	Temperature: (°F)	Compressive Strength 1:	(°F) (psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2:	(°F) (psi)
Fluid Loss: (cc)	Temperature: (°F)		
Fluid Loss Pressure: (°F)			

Cementing Report

Legal Well Name: INDIAN HILLS UNIT NO. 50
 Common Well Name: INDIAN HILLS UNIT NO. 50
 Event Name: ORIGINAL DRILLING

Report #: 1
 Start: 7/7/2003

Spud Date: 7/7/2003
 Report Date: 1/28/2003
 End:

Stage No: 1 Slurry No: 2 of 2**Slurry Data**

Fluid Type: TAIL	Description: NEAT	Class: CLASS C	Purpose: SHOE INTEG
Slurry Interval: (ft) To: (ft)	Cmt Vol: 150 (sk)	Density: 14.8 (ppg)	Yield: 1.34 (ft³/sk)
Water Source: Frac tanks	Slurry Vol: (bbl)	Water Vol: 35.0 (bbl)	Other Vol: ()
			Mix Water: 6.34 (gal/sk)
			Foam Job: N

Test Data

	Time	Temp	Pressure
Thickening Time:	Temperature: (°F)	Compressive Strength 1:	(°F) (psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2:	(°F) (psi)
Fluid Loss: (cc)	Temperature: (°F)		
Fluid Loss Pressure: (°F)			

Casing Test**Shoe Test****Liner Top Test**

Test Press: (psi)
 For: (min)
 Cement Found between
 Shoe and Collar:

Pressure: (ppge)
 Tool:
 Open Hole: (ft)
 Hrs Before Test:

Liner Lap:
 Pos Test: (ppge) Tool:
 Neg Test: (ppge) Tool:
 Hrs Before Test:
 Cement Found on Tool:

Log/Survey Evaluation**Interpretation Summary**

CBL Run:
 Under Pressure: (psi)
 Bond Quality:
 Cet Run:
 Bond Quality:
 Temp Survey:
 Hrs Prior to Log:

Cement Top: (ft)
 How Determined:
 TOC Sufficient:
 Job Rating:
 If Unsuccessful Detection Indicator:
 Remedial Cementing Required:
 Number of Remedial Squeezes:

Casing Report

Legal Well Name: INDIAN HILLS UNIT NO. 50
 Common Well Name: INDIAN HILLS UNIT NO. 50
 Event Name: ORIGINAL COMPLETION

Report #: 1
 Start: 7/20/2003

Spud Date: 7/7/2003
 Report Date: 2/20/2003
 End:

General Information

String Type: PRODUCTION CASING #1	Permanent Datum: KELLY BUSHING	Hole Size:	Hole TMD: 8,700.0 (ft)
Hole TVD: 8,526.0 (ft)	KB-Datum: 0.00 (ft)	Water TMD:	Str Wt on Slips: (lb)
Ground Level: 4,118.00 (ft)	CF Elevation: (ft)	Liner Overlap: (ft)	Max Hole Angle: 17.60 (°)
Circ Hours: 1.50 (hr)	Mud Lost: (bbl)	KB to Cutoff: (ft)	Days From Spud:

Casing Flange / Wellhead

Manufacturer: WOOD GROUP	Model: FMC C-22	Top Hub/Flange: 11.000 (in) / 3,000 (psi)
Hanger Model: 11"3M	Packoff Model:	BTM Hub/Flange: 9.625 (in) / 3,000 (psi)

Actual TMD Set: 8,700.660 (ft)

Integral Casing Detail

Item	Size (in)	Weight (lb/ft)	Grade	Drift (in)	Threads	JTS	Length (ft)	Top (ft)	MU Torq (ft-lbf)	THD	Manufacturer	Model	Cond.	Max OD (in)	Min ID (in)	Comp. Name
CASING JOINT(S)	7.000	26.0	L-80	6.151	8 ROUND	1	33.000								6.276	
CASING JOINT(S)	7.000	23.0	L-80	6.241	8 ROUND	111	4,809.800	33.00							6.366	
CASING JOINT(S)	7.000	26.0	L-80	6.151	8 ROUND	88	3,834.350	4,842.80							6.276	
CASING FLOAT COLLA	7.000	26.0	L-80	6.151	8 ROUND		1.500	8,677.15		Y					6.276	
CASING JOINT(S)	7.000	26.0	L-80	6.151	8 ROUND	1	20.510	8,678.65		Y					6.276	
CASING FLOAT SHOE	7.000	26.0	L-80	6.151	8 ROUND		1.500	8,699.16		Y					6.276	

Non-Integral Casing Accessories

Accessory	Manufacturer	Number	Spacing (ft)	Interval		How Fixed
				Top (ft)	Bottom (ft)	
CENTRALIZER	GEMCO	26	45.0	7,546.0	8,690.0	CLAMPED

Remarks

Did not cir. cement. But did cir . about 15min of super flush out to pit before bumping plug. Capped w/ 75 sks from surface.

Marathon Oil Company

Cementing Report

Page 1 of 4

Legal Well Name: INDIAN HILLS UNIT NO. 50	Report #: 1	Spud Date: 7/7/2003
Common Well Name: INDIAN HILLS UNIT NO. 50	Start: 7/20/2003	Report Date: 2/21/2003
Event Name: ORIGINAL COMPLETION		End:

Cement Job Type: Primary

Primary	Squeeze Open Hole	Squeeze Casing	Plug
Hole Size: 8.750 (in)	Hole Size:	Hole Size:	Hole Size:
TMD Set: 8,710.0 (ft)	SQ TMD: (ft)	TMD Set:	Top Set: (ft)
Date Set: 2/21/2003	SQ Date:	Date Set:	BTM set: (ft)
Csg Type: PRODUCTION CASIN	SQ Type:	Csg Type:	Plug Date:
Csg Size: 7.000 (in)		SQ TMD:	Plug Type:
		SQ Date:	Drilled Out:
Cmtd. Csg: OPEN HOLE	Cmtd. Csg:	Cmtd. Csg:	Cmtd. Csg:

Cement Co: HALLIBURTON	Cementer:	Pipe Movement: NO MOVEMENT
------------------------	-----------	----------------------------

Pipe Movement

Rot Time Start :	Time End :	RPM:	Init Torque: (ft-lbf)	Avg Torque: (ft-lbf)	Max Torque: (ft-lbf)
Rec Time Start :	Time End :	SPM:	Stroke Length: (ft)	Drag Up: 205 (lb)	Drag Down: 180 (lb)

Stage No: 1 of 3

Type: PRIM CMT 1ST STAGE	Start Mix Cmt: 12:45	Disp Avg Rate: 5.00 (bbl/min)	Returns: 100%
Volume Excess %: 60.00	Start Slurry Displ: :	Disp Max Rate: 5.00 (bbl/min)	Total Mud Lost: (bbl)
Meas. From:	Start Displ: :	Bump Plug: N	Cmt Vol to Surf: (bbl)
Time Circ Prior	End Pumping: :	Press Prior: (psi)	
To Cementing: 9.00	End Pump Date:	Press Bumped: (psi)	Ann Flow After: N
Mud Circ Rate: 388 (gpm)	Top Plug: N	Press Held: (min)	Mixing Method:
Mud Circ Press: 1,500 (psi)	Bottom Plug: N	Float Held: N	Density Meas By:

Mud Data

Type: FRESH WATER Density: 8.7 (ppg) Visc: 45 (s/qt) PV/YP: (cp)/8 (lb/100ft²) Gels 10 sec: (lb/100ft²) Gels 10 min: (lb/100ft²)

Bottom Hole Circulating Temperature: 126 (°F) Bottom Hole Static Temperature: (°F)

Displacement Fluid Type: FRESH WATER Density: 8.3 (ppg) Volume: 334.00 (bbl)

Stage No: 1 Slurry No: 1 of 1

Slurry Data

Fluid Type: LEAD	Description: EXTENDED	Class: CLASS H	Purpose: FILLER CEM
Slurry Interval: (ft) To: (ft)	Cmt Vol: 100 (sk)	Density: 15.0 (ppg)	Yield: 2.55 (ft ³ /sk)
Water Source: Corky Glenn	Slurry Vol: 10.0 (bbl)	Water Vol: 45.0 (bbl)	Other Vol: ()
			Foam Job: Y

Test Data

	Time	Temp	Pressure
Thickening Time:	Temperature: (°F)	Compressive Strength 1:	(°F) (psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2:	(°F) (psi)
Fluid Loss: (cc)	Temperature: (°F)		
Fluid Loss Pressure: (°F)			

Marathon Oil Company

Cementing Report

Page 2 of 4

Legal Well Name: INDIAN HILLS UNIT NO. 50	Report #: 1	Spud Date: 7/7/2003
Common Well Name: INDIAN HILLS UNIT NO. 50	Start: 7/20/2003	Report Date: 2/21/2003
Event Name: ORIGINAL COMPLETION		End:

Stage No: 2 of 3

Type: PRIM CMT 2ND STAGE	Start Mix Cmt: 12:30	Disp Avg Rate: 5.00 (bbl/min)	Returns: 100%
Volume Excess %: 60.00	Start Slurry Displ: :	Disp Max Rate: 5.00 (bbl/min)	Total Mud Lost: (bbl)
Meas. From:	Start Displ: :	Bump Plug: N	Cmt Vol to Surf: (bbl)
Time Circ Prior	End Pumping: :	Press Prior: (psi)	
To Cementing: 9.00	End Pump Date:	Press Bumped: (psi)	Ann Flow After: N
Mud Circ Rate: 388 (gpm)	Top Plug: N	Press Held: (min)	Mixing Method:
Mud Circ Press: (psi)	Bottom Plug: N	Float Held: N	Density Meas By:

Mud Data

Type: FRESH WATER Density: 8.7 (ppg) Visc: 45 (s/qt) PV/YP: (cp)/8 (lb/100ft²) Gels 10 sec: (lb/100ft²) Gels 10 min: (lb/100ft²)

Bottom Hole Circulating Temperature: (°F) Bottom Hole Static Temperature: (°F)

Displacement Fluid Type: Density: (ppg) Volume: (bbl)

Stage No: 2 Slurry No: 1 of 2

Slurry Data

Fluid Type: LEAD	Description: FOAM	Class: CLASS H	Purpose: FILLER CEM
Slurry Interval: (ft) To: 8,100.00 (ft)	Cmt Vol: 950 (sk)	Density: 15.2 (ppg)	Yield: 1.24 (ft ³ /sk)
Water Source: Corky Glenn	Slurry Vol: (bbl)	Water Vol: 117.0 (bbl)	Other Vol: ()
			Foam Job: Y

Test Data

	Time	Temp	Pressure
Thickening Time:	Temperature: (°F)	Compressive Strength 1: (°F)	(psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2: (°F)	(psi)
Fluid Loss: (cc)	Temperature: (°F)		
Fluid Loss Pressure: (°F)			

Stage No: 2 Slurry No: 2 of 2

Slurry Data

Fluid Type: TAIL	Description: Modified Super H	Class: CLASS H	Purpose: SHOE INTEG
Slurry Interval: (ft) To: (ft)	Cmt Vol: 120 (sk)	Density: 13.0 (ppg)	Yield: 1.67 (ft ³ /sk)
Water Source: Gleens wtr	Slurry Vol: (bbl)	Water Vol: 8.2 (bbl)	Other Vol: ()
			Foam Job: N

Test Data

	Time	Temp	Pressure
Thickening Time:	Temperature: (°F)	Compressive Strength 1: (°F)	(psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2: (°F)	(psi)
Fluid Loss: (cc)	Temperature: (°F)		
Fluid Loss Pressure: (°F)			

Cementing Report

Legal Well Name: INDIAN HILLS UNIT NO. 50
 Common Well Name: INDIAN HILLS UNIT NO. 50
 Event Name: ORIGINAL COMPLETION

Report #: 1
 Start: 7/20/2003

Spud Date: 7/7/2003
 Report Date: 2/21/2003
 End:

Stage No: 3 of 3

Type: SUFACE TOPOUT	Start Mix Cmt: :	Disp Avg Rate: (bbl/min)	Returns:
Volume Excess %:	Start Slurry Displ: :	Disp Max Rate: (bbl/min)	Total Mud Lost: (bbl)
Meas. From:	Start Displ: :	Bump Plug: N	Cmt Vol to Surf: (bbl)
Time Circ Prior	End Pumping: :	Press Prior: (psi)	
To Cementing:	End Pump Date:	Press Bumped: (psi)	Ann Flow After: N
Mud Circ Rate: (gpm)	Top Plug: N	Press Held: (min)	Mixing Method:
Mud Circ Press: (psi)	Bottom Plug: N	Float Held: N	Density Meas By:

Mud Data

Type: FRESH WATER Density: 8.7 (ppg) Visc: 45 (s/qt) PV/YP: (cp)/8 (lb/100ft²) Gels 10 sec: (lb/100ft²) Gels 10 min: (lb/100ft²)
 Bottom Hole Circulating Temperature: (°F) Bottom Hole Static Temperature: (°F)
 Displacement Fluid Type: Density: (ppg) Volume: (bbl)

Stage No: 3 Slurry No: 1 of 1**Slurry Data**

Fluid Type: OTHER	Description: Modified Super "H"	Class: CLASS H	Purpose: FILLER CEM
Slurry Interval: (ft) To: 350.00 (ft)	Cmt Vol: 75 (sk)	Density: 14.8 (ppg)	Yield: 1.47 (ft ³ /sk)
Water Source: gleens wtr	Slurry Vol: (bbl)	Water Vol: 10.0 (bbl)	Other Vol: ()
			Foam Job: N

Test Data

	Time	Temp	Pressure
Thickening Time:	Temperature: (°F)	Compressive Strength 1: (°F)	(psi)
Free Water: (%)	Temperature: (°F)	Compressive Strength 2: (°F)	(psi)
Fluid Loss: (cc)	Temperature: (°F)		
Fluid Loss Pressure: (°F)			

Stage No: 3 Slurry No: 1 of 1 - Additives

Trade Name	Type	Concentration	Units	Liquid Conc.	Units
CaCl2		3.00			% BWOC
CalSeal		10.00			lbs/sack

Marathon Oil Company
Cementing Report

Page 4 of 4

Legal Well Name: INDIAN HILLS UNIT NO. 50
Common Well Name: INDIAN HILLS UNIT NO. 50
Event Name: ORIGINAL COMPLETION

Report #: 1
Start: 7/20/2003

Spud Date: 7/7/2003
Report Date: 2/21/2003
End:

Casing Test

Shoe Test

Liner Top Test

Test Press: (psi)
For: (min)
Cement Found between
Shoe and Collar:

Pressure: (ppge)
Tool:
Open Hole: (ft)
Hrs Before Test:

Liner Lap:
Pos Test: (ppge) Tool:
Neg Test: (ppge) Tool:
Hrs Before Test:
Cement Found on Tool:

Log/Survey Evaluation

Interpretation Summary

CBL Run:
Under Pressure: (psi)
Bond Quality:
Cet Run:
Bond Quality:
Temp Survey:
Hrs Prior to Log:

Cement Top: (ft)
How Determined:
TOC Sufficient:
Job Rating:
If Unsuccessful Detection Indicator:
Remedial Cementing Required:
Number of Remedial Squeezes: