
IGCAA-NGTL-002

Reference:

Section 2.0, lines 15 to 17

Preamble:

NGTL states that supply on the NGTL system comes from over 900 individual receipt points and delivery from over 100 intra-Alberta delivery points. IGCAA is seeking to understand the implications of the physical structure of NGTL on rates and rate design.

Request:

(a) Could NGTL please provide a map of the NGTL pipeline system showing the individual receipt points and the intra-Alberta delivery stations?

(b) In NGTL's 2004 Annual Plan it sets out a number of "Design Areas". Could NGTL please provide a list of all of the "Design Areas" on its system and a map showing the location of each design area?

(c) Please provide a list of the receipt points and the delivery points in each design area.

Response:

(a) Please refer to Attachment IGCAA-NGTL-002(a).

IGCAA-NGTL-002

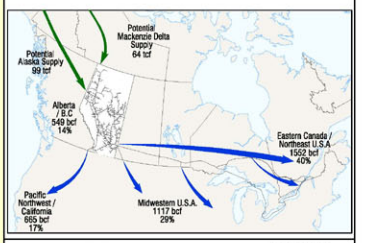
(b) Please refer to Attachment IGCAA-NGTL-002(b).

Design Area Name
UPPER PEACE RIVER
CENTRAL PEACE RIVER
LOWER PEACE RIVER
MARTEN HILLS
UPSTREAM BENS LAKE
DOWNSTREAM BENS LAKE
EDSON MAINLINE
EASML JAMES RIVER TO PRINCESS
EASML PRINCESS TO EMPRESS/MCNEILL
WESTERN MAINLINE
RIMBEY NEVIS
SOUTH AND ALDERSON
MEDICINE HAT

(c) Please refer to Attachment IGCAA-NGTL-002(c) for a list of current receipt and delivery stations by Design Area as of April 2005.

TransCanada
In business to deliver

2005 INTERIM PRICES
FT-R 3 YEAR TERM



2003 Operating Data (to Dec. 31 2003)		Natural Gas Transported	2002 Alberta System Statistics (to Dec. 31 2002)	
Total volumes delivered	- 3863 bcf	- 1957 bcf was delivered to TransCanada's Canadian Mainline System	Receipt meter points	- 937
Average day deliveries	- 10.61 bcf	- 613 bcf was delivered to TransCanada's B.C. System	Major delivery points	- 166
Maximum day deliveries	- 12.08 bcf	- 777 bcf was delivered to the Foothills Saskatchewan Pipeline System	Compressor Station Sites	- 47
			Total compression power (MW)	- 907
			Pipeline in service (km)	- 23,731

North and East Project Area

Peace River Project Area

Mainline Project Area

BOUNDARY LAKE BORDER

GORDONDALE BORDER

COLD LAKE BORDER

MERIDIAN LAKE BORDER

UNITY BORDER

ESTHER BORDER

EMPRESS BORDER
McNEILL BORDER

ALBERTA/B.C. BORDER

ALBERTA - MONTANA BORDER

ALBERTA SYSTEM
Existing Facilities

- Alberta System
- ▲ Compressor Station
- ● Receipt Meter Station
- ■ Delivery Sales Station

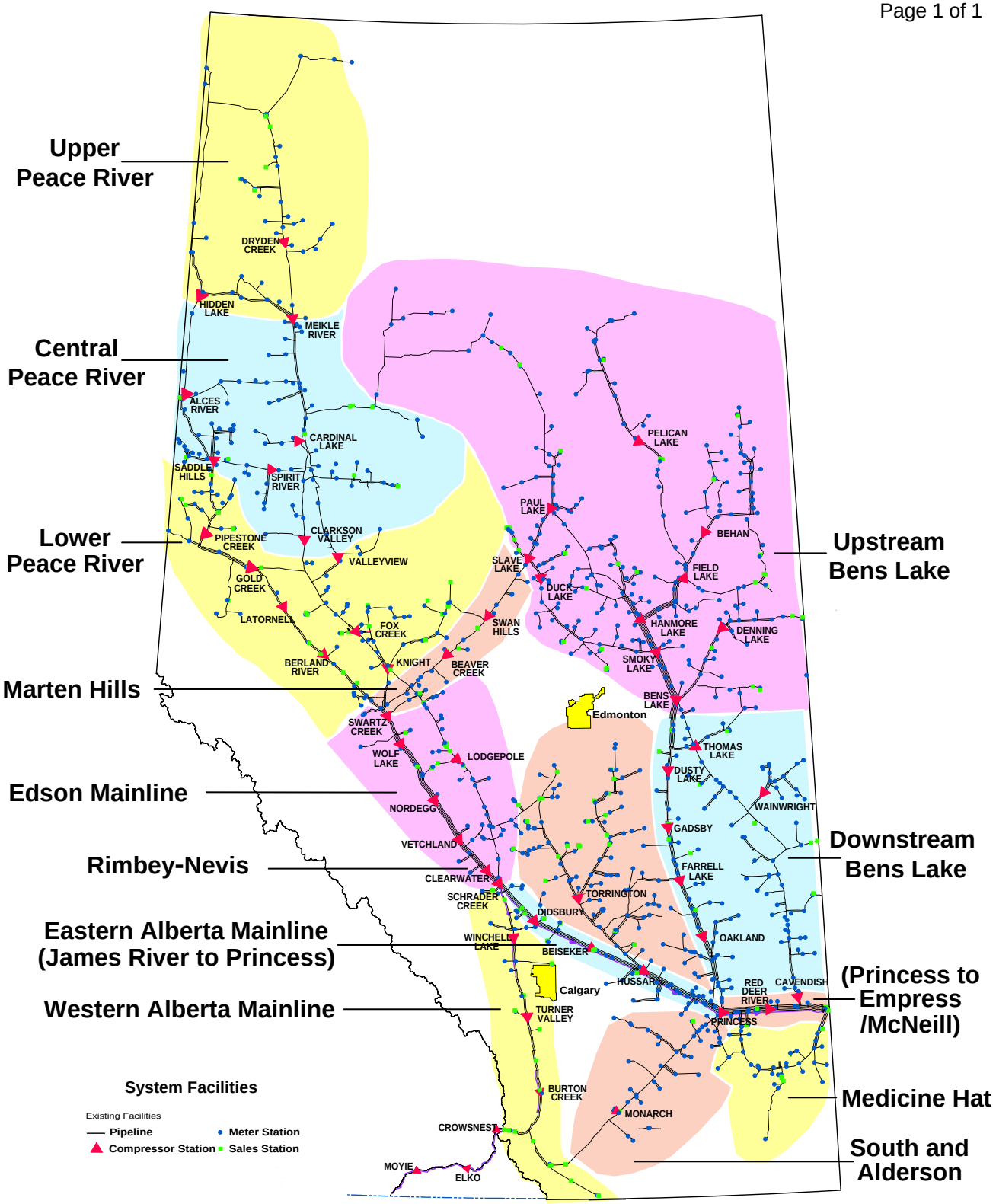
PRICE KEY (cents / Mcf)
FT-D Price 16.0 cents / Mcf

>= 8.0 - < 10.0	>= 16.0 - < 18.0
>= 10.0 - < 12.0	>= 18.0 - < 20.0
>= 12.0 - < 14.0	>= 20.0 - < 22.0
>= 14.0 - < 16.0	>= 22.0 - < = 24.0

"This price key reflects the Average Firm Receipt Service Price (AFRSP) for a 3 year term with a price floor of -8 cents/mcf from the AFRSP and a price ceiling of +8 cents/mcf from the AFRSP."

2005_Dot_alberta_interim_rates.dwg January 25, 2005 - willis - TC Mapping

DESIGN AREAS



MS Name	Design Area
BALLATER #2	CENTRAL PEACE RIVER
BAY TREE	CENTRAL PEACE RIVER
BEAR CANYON W.	CENTRAL PEACE RIVER
BELLOY	CENTRAL PEACE RIVER
BELLOY WEST	CENTRAL PEACE RIVER
BIG PRAIRIE	CENTRAL PEACE RIVER
BLUEBERRY HILL	CENTRAL PEACE RIVER
BOUNDARY LAKE S	CENTRAL PEACE RIVER
BOUNDARY LK BDR	CENTRAL PEACE RIVER
BROWNVALE NORTH	CENTRAL PEACE RIVER
BROWNVALE SALES	CENTRAL PEACE RIVER
CADOTTE RIVER	CENTRAL PEACE RIVER
CALAIS	CENTRAL PEACE RIVER
CARMON CREEK SL	CENTRAL PEACE RIVER
CATTAIL LAKE	CENTRAL PEACE RIVER
CLEAR HILLS	CENTRAL PEACE RIVER
CLEAR HILLS N.	CENTRAL PEACE RIVER
CLEAR PRAIRIE	CENTRAL PEACE RIVER
CLEARDALE	CENTRAL PEACE RIVER
CODESA	CENTRAL PEACE RIVER
CRANBERRY LK #2	CENTRAL PEACE RIVER
CRANBERRY LK SL	CENTRAL PEACE RIVER
CROWELL	CENTRAL PEACE RIVER
CULP #2	CENTRAL PEACE RIVER
CULP NORTH	CENTRAL PEACE RIVER
DEBOLT	CENTRAL PEACE RIVER
DIXONVILLE N #2	CENTRAL PEACE RIVER
DIXONVILLE N.	CENTRAL PEACE RIVER
DOE CREEK	CENTRAL PEACE RIVER
DOE CREEK SOUTH	CENTRAL PEACE RIVER
DONNELLY	CENTRAL PEACE RIVER
DREAU	CENTRAL PEACE RIVER
DUNVEGAN	CENTRAL PEACE RIVER
DUNVEGAN W. #2	CENTRAL PEACE RIVER
DUNVEGAN WEST	CENTRAL PEACE RIVER
EAGLESHAM	CENTRAL PEACE RIVER
FALHER SALES	CENTRAL PEACE RIVER
FERGUSON SALES	CENTRAL PEACE RIVER
FOURTH CREEK	CENTRAL PEACE RIVER
FOURTH CREEK S.	CENTRAL PEACE RIVER
FOURTH CREEK W.	CENTRAL PEACE RIVER
GILMORE LAKE	CENTRAL PEACE RIVER
GORDONDALE BDR	CENTRAL PEACE RIVER
GORDONDALE INTR	CENTRAL PEACE RIVER
GORDONDALE RCPT	CENTRAL PEACE RIVER
HARPER CREEK	CENTRAL PEACE RIVER
HEART RIVER	CENTRAL PEACE RIVER
HEART RIVER SLS	CENTRAL PEACE RIVER
HENDERSON CK SE	CENTRAL PEACE RIVER
HENDERSON CREEK	CENTRAL PEACE RIVER
HINES CREEK	CENTRAL PEACE RIVER
HINES CREEK W.	CENTRAL PEACE RIVER
HOTCHKISS	CENTRAL PEACE RIVER
HOTCHKISS EAST	CENTRAL PEACE RIVER
HOTCHKISS NE B	CENTRAL PEACE RIVER
HOTCHKISS NE C	CENTRAL PEACE RIVER
HOTCHKISS NORTH	CENTRAL PEACE RIVER
HOWARD CREEK E.	CENTRAL PEACE RIVER
JOSEPHINE	CENTRAL PEACE RIVER
JOSEPHINE EAST	CENTRAL PEACE RIVER
KSITUAN R E #2	CENTRAL PEACE RIVER
KSITUAN RIVER	CENTRAL PEACE RIVER
LALBY CREEK	CENTRAL PEACE RIVER
LAST LAKE	CENTRAL PEACE RIVER
LATHROP CREEK	CENTRAL PEACE RIVER
LOVET CREEK	CENTRAL PEACE RIVER
MANIR	CENTRAL PEACE RIVER
MCLEAN CREEK	CENTRAL PEACE RIVER
MCLENNAN	CENTRAL PEACE RIVER
MIRAGE	CENTRAL PEACE RIVER
MIRAGE SALES	CENTRAL PEACE RIVER
MOUNTAIN LAKE	CENTRAL PEACE RIVER
MULLIGAN CRK S.	CENTRAL PEACE RIVER
NEPTUNE	CENTRAL PEACE RIVER
NOTIKEWIN RIVER	CENTRAL PEACE RIVER
NOTIKEWIN RVR N	CENTRAL PEACE RIVER
OLE LAKE	CENTRAL PEACE RIVER
OWL LAKE SOUTH	CENTRAL PEACE RIVER
OWL LAKE STH #2	CENTRAL PEACE RIVER
OWL LAKE STH #3	CENTRAL PEACE RIVER
PETE LAKE	CENTRAL PEACE RIVER
PETE LAKE SOUTH	CENTRAL PEACE RIVER
RAMBLING CREEK	CENTRAL PEACE RIVER

MS Name	Design Area
RAMBLING CRK E.	CENTRAL PEACE RIVER
RAY LAKE SOUTH	CENTRAL PEACE RIVER
RAY LAKE WEST	CENTRAL PEACE RIVER
RUNNING LAKE	CENTRAL PEACE RIVER
RUNNING LAKE SA	CENTRAL PEACE RIVER
SILVER VALLEY	CENTRAL PEACE RIVER
SILVER VLY SLS	CENTRAL PEACE RIVER
SILVERWOOD	CENTRAL PEACE RIVER
SILVERWOOD N.	CENTRAL PEACE RIVER
SLIMS LAKE	CENTRAL PEACE RIVER
SNEDDON CREEK	CENTRAL PEACE RIVER
STOWE CREEK	CENTRAL PEACE RIVER
TANGENT	CENTRAL PEACE RIVER
TANGENT B	CENTRAL PEACE RIVER
TANGENT EAST	CENTRAL PEACE RIVER
TEEPEE CREEK	CENTRAL PEACE RIVER
U&T EAST PEACE	CENTRAL PEACE RIVER
WARRENSVILLE	CENTRAL PEACE RIVER
WATINO	CENTRAL PEACE RIVER
WEBSTER	CENTRAL PEACE RIVER
WEBSTER NORTH	CENTRAL PEACE RIVER
WHITBURN EAST	CENTRAL PEACE RIVER
WHITELAW	CENTRAL PEACE RIVER
WHITEMUD EAST	CENTRAL PEACE RIVER
WHITEMUD RIVER	CENTRAL PEACE RIVER
WHITEMUD WEST	CENTRAL PEACE RIVER
WINAGAMI LAKE	CENTRAL PEACE RIVER
WOKING	CENTRAL PEACE RIVER
WORSLEY EAST	CENTRAL PEACE RIVER
ACADIA EAST	DOWNSTREAM BENS LAKE
ACADIA NORTH	DOWNSTREAM BENS LAKE
ACADIA VALLEY	DOWNSTREAM BENS LAKE
AMISK SOUTH	DOWNSTREAM BENS LAKE
BAXTER LAKE	DOWNSTREAM BENS LAKE
BAXTER LAKE B	DOWNSTREAM BENS LAKE
BAXTER LAKE NW	DOWNSTREAM BENS LAKE
BAXTER LAKE S.	DOWNSTREAM BENS LAKE
BAXTER LAKE W.	DOWNSTREAM BENS LAKE
BELTZ LAKE	DOWNSTREAM BENS LAKE
BENTON	DOWNSTREAM BENS LAKE
BENTON WEST	DOWNSTREAM BENS LAKE
BERRY CREEK S.	DOWNSTREAM BENS LAKE
BERRY CRK EAST	DOWNSTREAM BENS LAKE
BERRY-CAROLSIDE	DOWNSTREAM BENS LAKE
BIGKNIFE CREEK	DOWNSTREAM BENS LAKE
BINDLOSS N. #1	DOWNSTREAM BENS LAKE
BINDLOSS SOUTH	DOWNSTREAM BENS LAKE
BINDLOSS WEST	DOWNSTREAM BENS LAKE
BLOOD IND CK E.	DOWNSTREAM BENS LAKE
BLOOD INDIAN CK	DOWNSTREAM BENS LAKE
BLOOR LAKE	DOWNSTREAM BENS LAKE
BODO WEST	DOWNSTREAM BENS LAKE
BONAR WEST	DOWNSTREAM BENS LAKE
BRUCE	DOWNSTREAM BENS LAKE
BRUCE NORTH	DOWNSTREAM BENS LAKE
BULLPOUND	DOWNSTREAM BENS LAKE
BULLPOUND SOUTH	DOWNSTREAM BENS LAKE
BYEMOOR	DOWNSTREAM BENS LAKE
CADOGAN	DOWNSTREAM BENS LAKE
CASTOR	DOWNSTREAM BENS LAKE
CESSFORD EAST	DOWNSTREAM BENS LAKE
CESSFORD N.E.	DOWNSTREAM BENS LAKE
CESSFORD NORTH	DOWNSTREAM BENS LAKE
CESSFORD SOUTH	DOWNSTREAM BENS LAKE
CESSFORD W GAGE	DOWNSTREAM BENS LAKE
CESSFORD WARDLO	DOWNSTREAM BENS LAKE
CESSFORD WEST	DOWNSTREAM BENS LAKE
CESSFORD-BUR #2	DOWNSTREAM BENS LAKE
CESSFORD-BURF W	DOWNSTREAM BENS LAKE
CESSFORD-BURF W	DOWNSTREAM BENS LAKE
CHAUVIN	DOWNSTREAM BENS LAKE
CHINOOK-CEREAL	DOWNSTREAM BENS LAKE
CHOICE	DOWNSTREAM BENS LAKE
CHOICE B	DOWNSTREAM BENS LAKE
COATES LAKE	DOWNSTREAM BENS LAKE
CONTRACOSTA E.	DOWNSTREAM BENS LAKE
CONTRACOSTA LK	DOWNSTREAM BENS LAKE
CRAIGMYLE EAST	DOWNSTREAM BENS LAKE
DAYSLAND	DOWNSTREAM BENS LAKE
DOROTHY	DOWNSTREAM BENS LAKE
DOWLING	DOWNSTREAM BENS LAKE
EDGERTON	DOWNSTREAM BENS LAKE
EDGERTON WEST	DOWNSTREAM BENS LAKE

MS Name	Design Area
ENDIANG	DOWNSTREAM BENS LAKE
ESTRIDGE LAKE	DOWNSTREAM BENS LAKE
FITZALLAN SOUTH	DOWNSTREAM BENS LAKE
FLAT LAKE CV MS	DOWNSTREAM BENS LAKE
FORESTBURG SLS	DOWNSTREAM BENS LAKE
GILT EDGE WEST	DOWNSTREAM BENS LAKE
GOUGH LAKE	DOWNSTREAM BENS LAKE
GREGORY N.E.	DOWNSTREAM BENS LAKE
HACKETT	DOWNSTREAM BENS LAKE
HALKIRK	DOWNSTREAM BENS LAKE
HALKIRK NORTH#2	DOWNSTREAM BENS LAKE
HAMILTON LAKE	DOWNSTREAM BENS LAKE
HANNA	DOWNSTREAM BENS LAKE
HANNA S B SALES	DOWNSTREAM BENS LAKE
HARDISTY	DOWNSTREAM BENS LAKE
HASTINGS COULEE	DOWNSTREAM BENS LAKE
HATTIE LAKE N.	DOWNSTREAM BENS LAKE
HEISLER	DOWNSTREAM BENS LAKE
HOLDEN	DOWNSTREAM BENS LAKE
HUDSON	DOWNSTREAM BENS LAKE
HUDSON WEST	DOWNSTREAM BENS LAKE
HUGHENDEN EAST	DOWNSTREAM BENS LAKE
JARROW	DOWNSTREAM BENS LAKE
JARROW SOUTH	DOWNSTREAM BENS LAKE
JARROW WEST	DOWNSTREAM BENS LAKE
KILLAM	DOWNSTREAM BENS LAKE
KILLAM NORTH	DOWNSTREAM BENS LAKE
LANFINE	DOWNSTREAM BENS LAKE
LAVOY	DOWNSTREAM BENS LAKE
LEE LAKE	DOWNSTREAM BENS LAKE
LEO	DOWNSTREAM BENS LAKE
LONE BUTTE	DOWNSTREAM BENS LAKE
MAPLE GLEN	DOWNSTREAM BENS LAKE
MATZHIWIN EAST	DOWNSTREAM BENS LAKE
METISKOW NORTH	DOWNSTREAM BENS LAKE
MINBURN	DOWNSTREAM BENS LAKE
MONITOR CREEK	DOWNSTREAM BENS LAKE
MONITOR CREEK W	DOWNSTREAM BENS LAKE
MONITOR SOUTH	DOWNSTREAM BENS LAKE
OYEN	DOWNSTREAM BENS LAKE
OYEN NORTH	DOWNSTREAM BENS LAKE
OYEN SOUTHEAST	DOWNSTREAM BENS LAKE
PARADISE VALLEY	DOWNSTREAM BENS LAKE
PARSONS LAKE	DOWNSTREAM BENS LAKE
PLAIN LAKE	DOWNSTREAM BENS LAKE
POE	DOWNSTREAM BENS LAKE
PROVOST MONITOR	DOWNSTREAM BENS LAKE
PROVOST NORTH	DOWNSTREAM BENS LAKE
PROVOST SOUTH	DOWNSTREAM BENS LAKE
PROVOST WEST	DOWNSTREAM BENS LAKE
PROVOST-BROWNFI	DOWNSTREAM BENS LAKE
PROVOST-KESSLER	DOWNSTREAM BENS LAKE
RANFURLY	DOWNSTREAM BENS LAKE
RANFURLY C	DOWNSTREAM BENS LAKE
RANFURLY NORTH	DOWNSTREAM BENS LAKE
RANFURLY SALES	DOWNSTREAM BENS LAKE
RANFURLY WEST	DOWNSTREAM BENS LAKE
RIBSTONE	DOWNSTREAM BENS LAKE
RIVERCOURSE	DOWNSTREAM BENS LAKE
ROSALIND	DOWNSTREAM BENS LAKE
ROSE LYNNE	DOWNSTREAM BENS LAKE
SCOTFIELD	DOWNSTREAM BENS LAKE
SEDALIA	DOWNSTREAM BENS LAKE
SEDALIA NORTH	DOWNSTREAM BENS LAKE
SEDALIA SOUTH	DOWNSTREAM BENS LAKE
SEDGEWICK	DOWNSTREAM BENS LAKE
SEDGEWICK EAST	DOWNSTREAM BENS LAKE
SEDGEWICK NORTH	DOWNSTREAM BENS LAKE
SHEERNESS SALES	DOWNSTREAM BENS LAKE
SHORNCLIFFE CRK	DOWNSTREAM BENS LAKE
SIBBALD	DOWNSTREAM BENS LAKE
STANMORE	DOWNSTREAM BENS LAKE
STANMORE SOUTH	DOWNSTREAM BENS LAKE
STEVEVILLE	DOWNSTREAM BENS LAKE
STROME-HOLMBERG	DOWNSTREAM BENS LAKE
SULLIVAN LAKE	DOWNSTREAM BENS LAKE
SUNNYNOOK	DOWNSTREAM BENS LAKE
TAPLOW	DOWNSTREAM BENS LAKE
TORLEA	DOWNSTREAM BENS LAKE
TORLEA EAST	DOWNSTREAM BENS LAKE
UNITY BORDER	DOWNSTREAM BENS LAKE
VEGREVILLE SALE	DOWNSTREAM BENS LAKE
VETERAN	DOWNSTREAM BENS LAKE

MS Name	Design Area
VIKING EAST	DOWNSTREAM BENS LAKE
VIKING NORTH	DOWNSTREAM BENS LAKE
VIKING SALES	DOWNSTREAM BENS LAKE
WAINWRIGHT EAST	DOWNSTREAM BENS LAKE
WAINWRIGHT S.	DOWNSTREAM BENS LAKE
WARDLOW EAST	DOWNSTREAM BENS LAKE
WATTS	DOWNSTREAM BENS LAKE
WEST VIKING	DOWNSTREAM BENS LAKE
WILDUNN CREEK E	DOWNSTREAM BENS LAKE
WILDUNN CRK-BUR	DOWNSTREAM BENS LAKE
YOUNGSTOWN	DOWNSTREAM BENS LAKE
ATUSIS CREEK SL	EASML JAMES RIVER TO PRINCESS
BASSANO SOUTH	EASML JAMES RIVER TO PRINCESS
BASSANO SOUTH 2	EASML JAMES RIVER TO PRINCESS
CARSELAND RECEI	EASML JAMES RIVER TO PRINCESS
CAVALIER	EASML JAMES RIVER TO PRINCESS
CAVALIER SALES	EASML JAMES RIVER TO PRINCESS
CHANCELLOR RECE	EASML JAMES RIVER TO PRINCESS
CHANCELLOR SALE	EASML JAMES RIVER TO PRINCESS
COUNTESS	EASML JAMES RIVER TO PRINCESS
COUNTESS MAKEPE	EASML JAMES RIVER TO PRINCESS
COUNTESS WEST	EASML JAMES RIVER TO PRINCESS
CRAMMOND	EASML JAMES RIVER TO PRINCESS
CRAMMOND SALES	EASML JAMES RIVER TO PRINCESS
CROSSFIELD E #2	EASML JAMES RIVER TO PRINCESS
CROSSFIELD E #2	EASML JAMES RIVER TO PRINCESS
DEADRICK CK SLS	EASML JAMES RIVER TO PRINCESS
DEADRICK CREEK	EASML JAMES RIVER TO PRINCESS
DIDSBURY TEST	EASML JAMES RIVER TO PRINCESS
GAYFORD	EASML JAMES RIVER TO PRINCESS
GEM SOUTH	EASML JAMES RIVER TO PRINCESS
GEM WEST	EASML JAMES RIVER TO PRINCESS
GLEICHEN	EASML JAMES RIVER TO PRINCESS
GREGORY	EASML JAMES RIVER TO PRINCESS
GREGORY WEST	EASML JAMES RIVER TO PRINCESS
HARMATTAN EAST	EASML JAMES RIVER TO PRINCESS
HARMATTAN SALES	EASML JAMES RIVER TO PRINCESS
HARMATTAN-ELKTN	EASML JAMES RIVER TO PRINCESS
JAMES RVR INTER	EASML JAMES RIVER TO PRINCESS
KERSEY	EASML JAMES RIVER TO PRINCESS
LONE PINE CK SL	EASML JAMES RIVER TO PRINCESS
LONE PINE CREEK	EASML JAMES RIVER TO PRINCESS
LONE PINE SOUTH	EASML JAMES RIVER TO PRINCESS
MAKEPEACE NORTH	EASML JAMES RIVER TO PRINCESS
MATZHIWIN N.E.	EASML JAMES RIVER TO PRINCESS
MATZHIWIN SOUTH	EASML JAMES RIVER TO PRINCESS
MATZHIWIN W. B	EASML JAMES RIVER TO PRINCESS
MATZHIWIN WEST	EASML JAMES RIVER TO PRINCESS
NETOOK	EASML JAMES RIVER TO PRINCESS
NIGHTINGALE	EASML JAMES RIVER TO PRINCESS
OLDS	EASML JAMES RIVER TO PRINCESS
PATRICIA	EASML JAMES RIVER TO PRINCESS
PATRICIA WEST	EASML JAMES RIVER TO PRINCESS
RICINUS S SALES	EASML JAMES RIVER TO PRINCESS
RICINUS SOUTH	EASML JAMES RIVER TO PRINCESS
ROCKYFORD	EASML JAMES RIVER TO PRINCESS
ROSEMARY	EASML JAMES RIVER TO PRINCESS
ROSEMARY NORTH	EASML JAMES RIVER TO PRINCESS
SEIU CREEK	EASML JAMES RIVER TO PRINCESS
SERVICEBERRY CR	EASML JAMES RIVER TO PRINCESS
SEVERN CREEK	EASML JAMES RIVER TO PRINCESS
SEVERN CRK SLS	EASML JAMES RIVER TO PRINCESS
SHANTZ SALES	EASML JAMES RIVER TO PRINCESS
SOUTH ELKTON	EASML JAMES RIVER TO PRINCESS
STANDARD	EASML JAMES RIVER TO PRINCESS
TUDOR	EASML JAMES RIVER TO PRINCESS
VERGER	EASML JAMES RIVER TO PRINCESS
VERGER-HOMESTEA	EASML JAMES RIVER TO PRINCESS
VERGER-MILLICEN	EASML JAMES RIVER TO PRINCESS
WESTERDALE SLS	EASML JAMES RIVER TO PRINCESS
WINTERING HILLS	EASML JAMES RIVER TO PRINCESS
WINTERING HLS E	EASML JAMES RIVER TO PRINCESS
AECO A	EASML PRINCESS TO EMPRESS
AECO C	EASML PRINCESS TO EMPRESS
AECO C SALES	EASML PRINCESS TO EMPRESS
AECO H	EASML PRINCESS TO EMPRESS
AMOCO INLET	EASML PRINCESS TO EMPRESS
ATLEE-BUFFALO	EASML PRINCESS TO EMPRESS
ATLEE-BUFFALO E	EASML PRINCESS TO EMPRESS
ATLEE-BUFFALO S	EASML PRINCESS TO EMPRESS
CAVENDISH SOUTH	EASML PRINCESS TO EMPRESS
DERE COMP FUEL	EASML PRINCESS TO EMPRESS
EMPRESS 100 RTM	EASML PRINCESS TO EMPRESS

MS Name	Design Area
EMPRESS 200 RTM	EASML PRINCESS TO EMPRESS
EMPRESS 300 RTM	EASML PRINCESS TO EMPRESS
EMPRESS 400 RTM	EASML PRINCESS TO EMPRESS
EMPRESS BORDER	EASML PRINCESS TO EMPRESS
EMPRESS C BDR	EASML PRINCESS TO EMPRESS
EMPRESS EAST BO	EASML PRINCESS TO EMPRESS
EMPRESS SOUTH	EASML PRINCESS TO EMPRESS
EMPRESS SYST.7	EASML PRINCESS TO EMPRESS
EMPRESS WOLCOTT	EASML PRINCESS TO EMPRESS
IDDESLEIGH S.	EASML PRINCESS TO EMPRESS
JENNER EAST	EASML PRINCESS TO EMPRESS
JENNER EAST SLS	EASML PRINCESS TO EMPRESS
JENNER WEST	EASML PRINCESS TO EMPRESS
JENNER WEST B	EASML PRINCESS TO EMPRESS
MAJESTIC	EASML PRINCESS TO EMPRESS
MCNEILL A BORDR	EASML PRINCESS TO EMPRESS
MCNEILL A UTIL	EASML PRINCESS TO EMPRESS
MCNEILL BORDR	EASML PRINCESS TO EMPRESS
PAN CAN INLET	EASML PRINCESS TO EMPRESS
PETRO FUEL SALE	EASML PRINCESS TO EMPRESS
PETRO GAS PLANT	EASML PRINCESS TO EMPRESS
PRINCESS EAST	EASML PRINCESS TO EMPRESS
PRINCESS-DENHAR	EASML PRINCESS TO EMPRESS
PRINCESS-IDDESL	EASML PRINCESS TO EMPRESS
PROGAS PLANT	EASML PRINCESS TO EMPRESS
SHARROW SOUTH#2	EASML PRINCESS TO EMPRESS
TIDE LAKE NORTH	EASML PRINCESS TO EMPRESS
ALDER FLATS	EDSON MAINLINE
ALDER FLATS S.	EDSON MAINLINE
BIGORAY RIVER	EDSON MAINLINE
BINGLEY	EDSON MAINLINE
BLUE RAPIDS	EDSON MAINLINE
BRAZEAU	EDSON MAINLINE
BRAZEAU EAST	EDSON MAINLINE
BRAZEAU N SALES	EDSON MAINLINE
BRAZEAU NORTH	EDSON MAINLINE
BRAZEAU SOUTH	EDSON MAINLINE
BUTTE	EDSON MAINLINE
CAROLINE NORTH	EDSON MAINLINE
CAROLINE SALES	EDSON MAINLINE
CARROT CREEK SL	EDSON MAINLINE
CODNER	EDSON MAINLINE
CYNTHIA #2	EDSON MAINLINE
CYNTHIA SALES	EDSON MAINLINE
DISMAL CREEK	EDSON MAINLINE
EDSON	EDSON MAINLINE
ELK RIVER S SLS	EDSON MAINLINE
ELK RIVER SOUTH	EDSON MAINLINE
ETA LAKE	EDSON MAINLINE
FERRIER	EDSON MAINLINE
FERRIER NORTH	EDSON MAINLINE
FERRIER SOUTH A	EDSON MAINLINE
FERRIER SOUTH B	EDSON MAINLINE
GILBY WEST	EDSON MAINLINE
GRACE CREEK	EDSON MAINLINE
GRANADA	EDSON MAINLINE
HORBURG	EDSON MAINLINE
JANUARY CREEK	EDSON MAINLINE
JANUARY CRK SLS	EDSON MAINLINE
LASTHILL CREEK	EDSON MAINLINE
LEAFLAND	EDSON MAINLINE
LEEDALE	EDSON MAINLINE
LOBSTICK	EDSON MAINLINE
MINNEHIK-BK L B	EDSON MAINLINE
MINNEHIK-BK LK	EDSON MAINLINE
MINNOW LAKE	EDSON MAINLINE
MINNOW LK S. SL	EDSON MAINLINE
NEWALTA HUGH. S	EDSON MAINLINE
NITON	EDSON MAINLINE
NITON NORTH	EDSON MAINLINE
PADDY CREEK SLS	EDSON MAINLINE
PEERS	EDSON MAINLINE
PEMBINA	EDSON MAINLINE
PEMBINA SALES	EDSON MAINLINE
PEMBINA WEST	EDSON MAINLINE
PIONEER	EDSON MAINLINE
PIONEER EAST	EDSON MAINLINE
POISON CREEK	EDSON MAINLINE
RAT CREEK	EDSON MAINLINE
RAT CREEK SOUTH	EDSON MAINLINE
RAT CREEK WEST	EDSON MAINLINE
RICINUS	EDSON MAINLINE
RICINUS WEST	EDSON MAINLINE

MS Name	Design Area
ROBB	EDSON MAINLINE
ROSEVEAR SOUTH	EDSON MAINLINE
SAND CREEK	EDSON MAINLINE
STRACHAN	EDSON MAINLINE
TAWADINA CREEK	EDSON MAINLINE
WEST PEMBINA S.	EDSON MAINLINE
WESTEROSE	EDSON MAINLINE
WILLESDEN GR N.	EDSON MAINLINE
WILLESDEN GREEN	EDSON MAINLINE
WILSON CREEK	EDSON MAINLINE
WILSON CREEK SE	EDSON MAINLINE
WILSON CRK S SL	EDSON MAINLINE
WITHROW	EDSON MAINLINE
ALBRIGHT	LOWER PEACE RIVER
ANTE CREEK S.	LOWER PEACE RIVER
BEAR RIVER	LOWER PEACE RIVER
BEAR RIVER WEST	LOWER PEACE RIVER
BEAVER HILL SLS	LOWER PEACE RIVER
BENBOW SOUTH	LOWER PEACE RIVER
BIGSTONE EAST	LOWER PEACE RIVER
BIGSTONE EAST B	LOWER PEACE RIVER
BIGSTONE SALES	LOWER PEACE RIVER
BOULDER CREEK	LOWER PEACE RIVER
BURNT RIVER	LOWER PEACE RIVER
CARSON CREEK	LOWER PEACE RIVER
CARSON CREEK E.	LOWER PEACE RIVER
CECILIA	LOWER PEACE RIVER
CHICKADEE CK SL	LOWER PEACE RIVER
CHICKADEE CK W.	LOWER PEACE RIVER
CLARK LAKE	LOWER PEACE RIVER
COPTON CREEK	LOWER PEACE RIVER
CROOKED LK S.	LOWER PEACE RIVER
CROOKED LK W.	LOWER PEACE RIVER
CUTBANK RIVER	LOWER PEACE RIVER
DEEP VLLY CR SL	LOWER PEACE RIVER
DEEP VLLY CRK E	LOWER PEACE RIVER
DEEP VLLY CRK S	LOWER PEACE RIVER
DEEP VY CK S SL	LOWER PEACE RIVER
DEMMITT	LOWER PEACE RIVER
DEMMITT #2	LOWER PEACE RIVER
DEMMITT #2 SLS	LOWER PEACE RIVER
DEMMITT SALES	LOWER PEACE RIVER
ELMWORTH HIGH	LOWER PEACE RIVER
FRAKES FLATS	LOWER PEACE RIVER
FRAKES FLATS E.	LOWER PEACE RIVER
GOLD CREEK	LOWER PEACE RIVER
GOLD CREEK SLS	LOWER PEACE RIVER
GOODFARE	LOWER PEACE RIVER
GRANDE PRAIR SL	LOWER PEACE RIVER
GRIZZLY	LOWER PEACE RIVER
GRIZZLY SALES	LOWER PEACE RIVER
HERMIT LAKE	LOWER PEACE RIVER
HERMIT LAKE SLS	LOWER PEACE RIVER
HUGGARD CREEK S	LOWER PEACE RIVER
HYTHE	LOWER PEACE RIVER
IROQUOIS CREEK	LOWER PEACE RIVER
JONES LAKE	LOWER PEACE RIVER
JONES LAKE #2	LOWER PEACE RIVER
JONES LAKE EAST	LOWER PEACE RIVER
JONES LAKE N.	LOWER PEACE RIVER
JUDY CREEK	LOWER PEACE RIVER
JUDY CREEK SALE	LOWER PEACE RIVER
KAKWA	LOWER PEACE RIVER
KARR	LOWER PEACE RIVER
KAYBOB	LOWER PEACE RIVER
KAYBOB 11-36	LOWER PEACE RIVER
KAYBOB SOUTH	LOWER PEACE RIVER
KAYBOB SOUTH #3	LOWER PEACE RIVER
LITTLE SUNDANCE	LOWER PEACE RIVER
LOUISE CREEK SL	LOWER PEACE RIVER
MARLBORO	LOWER PEACE RIVER
MARLBORO EAST	LOWER PEACE RIVER
MARSH HD CK W#2	LOWER PEACE RIVER
MARSH HD CR W S	LOWER PEACE RIVER
MARSH HEAD CK W	LOWER PEACE RIVER
MARSH HEAD CRK	LOWER PEACE RIVER
MILLERS LAKE	LOWER PEACE RIVER
MOOSEHORN R SLS	LOWER PEACE RIVER
MOUNT VALLEY	LOWER PEACE RIVER
MUSREAU LAKE	LOWER PEACE RIVER
NARRAWAY RIVER	LOWER PEACE RIVER
NIOBE CREEK	LOWER PEACE RIVER
NOSE MOUNTAIN	LOWER PEACE RIVER

MS Name	Design Area
NOSEHILL CRK N.	LOWER PEACE RIVER
NOSEHILL CRK SL	LOWER PEACE RIVER
OBED CREEK	LOWER PEACE RIVER
OBED NORTH	LOWER PEACE RIVER
OUTLET CREEK SL	LOWER PEACE RIVER
PASS CREEK	LOWER PEACE RIVER
PASS CREEK WEST	LOWER PEACE RIVER
PINE CREEK SLS	LOWER PEACE RIVER
PROGRESS	LOWER PEACE RIVER
PROGRESS EAST	LOWER PEACE RIVER
RASPBERRY LAKE	LOWER PEACE RIVER
RASPBERRY LAKE	LOWER PEACE RIVER
SAKWATAMAU SALE	LOWER PEACE RIVER
SIMONETTE	LOWER PEACE RIVER
SIMONETTE NORTH	LOWER PEACE RIVER
SIMONETTE SALES	LOWER PEACE RIVER
SNIPE LAKE	LOWER PEACE RIVER
SNUFF MOUNTAIN	LOWER PEACE RIVER
STURGEON LAKE S	LOWER PEACE RIVER
SUNDANCE CREEK	LOWER PEACE RIVER
SUNDANCE CREEK	LOWER PEACE RIVER
SUNDANCE CRK E.	LOWER PEACE RIVER
TONY CREEK N.	LOWER PEACE RIVER
TWO CREEKS	LOWER PEACE RIVER
TWO CREEKS EAST	LOWER PEACE RIVER
VALHALLA	LOWER PEACE RIVER
VALHALLA #2	LOWER PEACE RIVER
VALHALLA EAST	LOWER PEACE RIVER
VALHALLA SALES	LOWER PEACE RIVER
VIRGINIA HILLS	LOWER PEACE RIVER
VIRGINIA HLS E.	LOWER PEACE RIVER
WASKAHIGAN	LOWER PEACE RIVER
WASKAHIGAN EAST	LOWER PEACE RIVER
WEMBLEY	LOWER PEACE RIVER
WEMBLEY SALES	LOWER PEACE RIVER
WILDHAY RIVER	LOWER PEACE RIVER
WINDFALL	LOWER PEACE RIVER
WOOSTER	LOWER PEACE RIVER
AKUINU RIVER	MARTEN HILLS
AKUINU RIVER W.	MARTEN HILLS
AKUINU RVR W.#2	MARTEN HILLS
ANSELL	MARTEN HILLS
BLUE RIDGE E SL	MARTEN HILLS
CHISHOLM MILL W	MARTEN HILLS
DORIS CREEK N.	MARTEN HILLS
DORIS CREEK SOU	MARTEN HILLS
FLORENCE CREEK	MARTEN HILLS
GREENCOURT	MARTEN HILLS
GREENCOURT W SL	MARTEN HILLS
HADDOCK	MARTEN HILLS
HADDOCK NORTH	MARTEN HILLS
HADDOCK SOUTH	MARTEN HILLS
MAHASKA	MARTEN HILLS
MAHASKA WEST	MARTEN HILLS
NOEL LAKE SALES	MARTEN HILLS
NOEL LAKE SOUTH	MARTEN HILLS
PADDLE RIVER	MARTEN HILLS
PARKER CREEK	MARTEN HILLS
TOPLAND	MARTEN HILLS
WHITECOURT	MARTEN HILLS
AECO I	MEDICINE HAT
ALDERSON	MEDICINE HAT
ALDERSON SOUTH	MEDICINE HAT
BOWELL SOUTH	MEDICINE HAT
BOWELL SOUTH #2	MEDICINE HAT
BOWMANTON	MEDICINE HAT
BOWMANTON EAST	MEDICINE HAT
BOWMANTON SOUTH	MEDICINE HAT
BOWMANTON WEST	MEDICINE HAT
BULLSHEAD	MEDICINE HAT
COUSINS A SALES	MEDICINE HAT
COUSINS B SALES	MEDICINE HAT
COUSINS C SALES	MEDICINE HAT
COUSINS WEST	MEDICINE HAT
DUNMORE	MEDICINE HAT
ETZIKOM A	MEDICINE HAT
ETZIKOM B	MEDICINE HAT
ETZIKOM C	MEDICINE HAT
ETZIKOM D	MEDICINE HAT
GAS CITY SALES	MEDICINE HAT
HILDA WEST	MEDICINE HAT
IRVINE	MEDICINE HAT
LOUISIANA LAKE	MEDICINE HAT

MS Name	Design Area
MED HAT N. #1	MEDICINE HAT
MED HAT N. ARCO	MEDICINE HAT
MED HAT N. F	MEDICINE HAT
MED HAT N.W.	MEDICINE HAT
MED HAT S. #1	MEDICINE HAT
MED HAT S. #2	MEDICINE HAT
MED HAT S. #4	MEDICINE HAT
MED HAT WEST	MEDICINE HAT
MEDICINE HAT E.	MEDICINE HAT
MURRAY LAKE	MEDICINE HAT
MURRAY LAKE NOR	MEDICINE HAT
RALSTON	MEDICINE HAT
RALSTON SOUTH	MEDICINE HAT
REDCLIFF	MEDICINE HAT
REDCLIFF SOUTH	MEDICINE HAT
REDCLIFF STH #2	MEDICINE HAT
REDCLIFF WEST	MEDICINE HAT
ROSS CREEK SLS	MEDICINE HAT
SCHULER	MEDICINE HAT
SOUTH SASK RVR	MEDICINE HAT
STORNHAM COULEE	MEDICINE HAT
SUFFIELD WEST	MEDICINE HAT
TIDE LAKE	MEDICINE HAT
TIDE LAKE B	MEDICINE HAT
TIDE LAKE EAST	MEDICINE HAT
TIDE LAKE SOUTH	MEDICINE HAT
TWELVE MILE COU	MEDICINE HAT
VALE	MEDICINE HAT
VALE EAST	MEDICINE HAT
ARDLEY SALES	RIMBEY NEVIS
ARMENA	RIMBEY NEVIS
ATUSIS CREEK E	RIMBEY NEVIS
BASHAW	RIMBEY NEVIS
BASHAW B	RIMBEY NEVIS
BASHAW WEST SLS	RIMBEY NEVIS
BENALTO WEST	RIMBEY NEVIS
BENTLEY	RIMBEY NEVIS
BITTERN LAKE	RIMBEY NEVIS
BITTERN LAKE SL	RIMBEY NEVIS
BONNIE GLEN	RIMBEY NEVIS
BRIGGS	RIMBEY NEVIS
CAMROSE CREEK	RIMBEY NEVIS
CARBON	RIMBEY NEVIS
CARBON EMERG CT	RIMBEY NEVIS
CARBON SALES	RIMBEY NEVIS
CARBON WEST	RIMBEY NEVIS
CHIGWELL	RIMBEY NEVIS
CHIGWELL EAST	RIMBEY NEVIS
CHIGWELL N. SLS	RIMBEY NEVIS
CRAIGMYLE	RIMBEY NEVIS
DELBURNE SALES	RIMBEY NEVIS
DELIA	RIMBEY NEVIS
DONALDA	RIMBEY NEVIS
DUHAMEL	RIMBEY NEVIS
EDBERG	RIMBEY NEVIS
ELNORA EAST #2	RIMBEY NEVIS
EQUITY	RIMBEY NEVIS
EQUITY B	RIMBEY NEVIS
EQUITY EAST	RIMBEY NEVIS
ERSKINE NORTH	RIMBEY NEVIS
EVERGREEN SALES	RIMBEY NEVIS
FERINTOSH N. SL	RIMBEY NEVIS
FERINTOSH NORTH	RIMBEY NEVIS
FERINTOSH SALES	RIMBEY NEVIS
FERINTOSH WEST	RIMBEY NEVIS
FORSHEE	RIMBEY NEVIS
GAETZ LAKE SLS	RIMBEY NEVIS
GATINE	RIMBEY NEVIS
GHOSTPINE	RIMBEY NEVIS
GHOSTPINE B	RIMBEY NEVIS
GILBY #2	RIMBEY NEVIS
GILBY SOUTH PAC	RIMBEY NEVIS
GOOSEQUILL	RIMBEY NEVIS
GRAINGER	RIMBEY NEVIS
HACKETT WEST	RIMBEY NEVIS
HAYNES SALES	RIMBEY NEVIS
HUMMOCK LAKE	RIMBEY NEVIS
HUSSAR NORTH	RIMBEY NEVIS
HUSSAR-CHANCELL	RIMBEY NEVIS
HUXLEY	RIMBEY NEVIS
HUXLEY EAST	RIMBEY NEVIS
INNISFAIL SALES	RIMBEY NEVIS
JOFFRE	RIMBEY NEVIS

MS Name	Design Area
JOFFRE EXTRACTI	RIMBEY NEVIS
JOFFRE SALES	RIMBEY NEVIS
JOFFRE SLS #2	RIMBEY NEVIS
JOFFRE SLS #3	RIMBEY NEVIS
LACOMBE LAKE	RIMBEY NEVIS
LAKEVIEW LAKE	RIMBEY NEVIS
LAKEVIEW LAKE #	RIMBEY NEVIS
LAMERTON	RIMBEY NEVIS
LINDEN	RIMBEY NEVIS
LLOYD CREEK SLS	RIMBEY NEVIS
LOUSANA	RIMBEY NEVIS
MEDICINE RVR A	RIMBEY NEVIS
MICHICHI	RIMBEY NEVIS
MIKWAN	RIMBEY NEVIS
MIKWAN EAST	RIMBEY NEVIS
MIKWAN NORTH	RIMBEY NEVIS
MIQUELON LAKE	RIMBEY NEVIS
MIRROR	RIMBEY NEVIS
MORRIN	RIMBEY NEVIS
MUNSON	RIMBEY NEVIS
NEVIS NORTH	RIMBEY NEVIS
NEVIS SOUTH	RIMBEY NEVIS
NORTH PENHOLD S	RIMBEY NEVIS
OHATON	RIMBEY NEVIS
PENHOLD	RIMBEY NEVIS
PENHOLD WEST	RIMBEY NEVIS
PIPER CREEK	RIMBEY NEVIS
RIMBEY	RIMBEY NEVIS
RIM-WEST SALES	RIMBEY NEVIS
ROWLEY	RIMBEY NEVIS
RUMSEY	RIMBEY NEVIS
RUMSEY WEST	RIMBEY NEVIS
SPOTTED CREEK	RIMBEY NEVIS
STETTLER SOUTH	RIMBEY NEVIS
SYLVAN LAKE	RIMBEY NEVIS
SYLVAN LAKE EAS	RIMBEY NEVIS
SYLVAN LAKE EAS	RIMBEY NEVIS
SYLVAN LAKE SLS	RIMBEY NEVIS
SYLVAN LK SOUTH	RIMBEY NEVIS
SYLVAN LK WEST	RIMBEY NEVIS
THREE HILLS CRK	RIMBEY NEVIS
THREE HLS CRK W	RIMBEY NEVIS
TORRINGTON EAST	RIMBEY NEVIS
TROCHU	RIMBEY NEVIS
TWINING	RIMBEY NEVIS
TWINING NORTH	RIMBEY NEVIS
USONA SALES	RIMBEY NEVIS
VICTOR	RIMBEY NEVIS
WAYNE N B SALES	RIMBEY NEVIS
WAYNE NORTH	RIMBEY NEVIS
WAYNE-DALUM	RIMBEY NEVIS
WAYNE-ROSEBUD	RIMBEY NEVIS
WIMBORNE	RIMBEY NEVIS
WIMBORNE NORTH	RIMBEY NEVIS
WIMBORNE SALES	RIMBEY NEVIS
WOOD RIVER	RIMBEY NEVIS
WOOD RVR SALES	RIMBEY NEVIS
ALDERSON NORTH	SOUTH & ALDERSON FLATS
BADGER EAST	SOUTH & ALDERSON FLATS
BADGER NORTH	SOUTH & ALDERSON FLATS
BAILEY S BOTTOM	SOUTH & ALDERSON FLATS
BANTRY	SOUTH & ALDERSON FLATS
BANTRY N.E.	SOUTH & ALDERSON FLATS
BANTRY N.W.	SOUTH & ALDERSON FLATS
BANTRY NORTH	SOUTH & ALDERSON FLATS
CASSILS	SOUTH & ALDERSON FLATS
COUNTESS S. #2	SOUTH & ALDERSON FLATS
DIAMOND CITY	SOUTH & ALDERSON FLATS
ENCHANT	SOUTH & ALDERSON FLATS
HAYS	SOUTH & ALDERSON FLATS
INDIAN LAKE	SOUTH & ALDERSON FLATS
INDIAN LAKE #2	SOUTH & ALDERSON FLATS
IRON SPRINGS	SOUTH & ALDERSON FLATS
KEHO LAKE	SOUTH & ALDERSON FLATS
KEHO LAKE NORTH	SOUTH & ALDERSON FLATS
LAKE NEWELL E.	SOUTH & ALDERSON FLATS
LONESOME LAKE	SOUTH & ALDERSON FLATS
MILO	SOUTH & ALDERSON FLATS
MONARCH N. B SL	SOUTH & ALDERSON FLATS
MONARCH NORTH A	SOUTH & ALDERSON FLATS
NEWELL NORTH	SOUTH & ALDERSON FLATS
ONETREE SALES	SOUTH & ALDERSON FLATS
ORTON	SOUTH & ALDERSON FLATS

MS Name	Design Area
PICTURE BUTTE	SOUTH & ALDERSON FLATS
PINCHER CRK SLS	SOUTH & ALDERSON FLATS
PRINCESS SOUTH	SOUTH & ALDERSON FLATS
PRINCESS WEST	SOUTH & ALDERSON FLATS
QUEENSTOWN	SOUTH & ALDERSON FLATS
RAINIER	SOUTH & ALDERSON FLATS
RAINIER S.W.	SOUTH & ALDERSON FLATS
RAINIER SOUTH	SOUTH & ALDERSON FLATS
RETLAW	SOUTH & ALDERSON FLATS
RETLAW SOUTH	SOUTH & ALDERSON FLATS
TILLEBROOK	SOUTH & ALDERSON FLATS
TILLEBROOK WEST	SOUTH & ALDERSON FLATS
TILLEY	SOUTH & ALDERSON FLATS
TILLEY SOUTH #2	SOUTH & ALDERSON FLATS
TRAVERS	SOUTH & ALDERSON FLATS
VULCAN	SOUTH & ALDERSON FLATS
WELLING	SOUTH & ALDERSON FLATS
WELLING SALES	SOUTH & ALDERSON FLATS
WHITNEY	SOUTH & ALDERSON FLATS
CHIP LAKE	UNCONNECTED UNITS
CHIP LAKE JCT	UNCONNECTED UNITS
COALDALE S. A I	UNCONNECTED UNITS
COALDALE S. B	UNCONNECTED UNITS
COALDALE S. JCT	UNCONNECTED UNITS
ESTHER BORDER	UNCONNECTED UNITS
ESTHER DELIVERY	UNCONNECTED UNITS
MERIDIAN LK BDR	UNCONNECTED UNITS
MERIDIAN LK DLV	UNCONNECTED UNITS
ASSUMPTION	UPPER PEACE RIVER
ASSUMPTION #2	UPPER PEACE RIVER
BASSET LAKE	UPPER PEACE RIVER
BASSET LAKE S.	UPPER PEACE RIVER
BASSET LAKE W.	UPPER PEACE RIVER
BOOTIS HILL	UPPER PEACE RIVER
BOTHA	UPPER PEACE RIVER
BOTHA EAST	UPPER PEACE RIVER
BOTHA WEST	UPPER PEACE RIVER
BOYER EAST	UPPER PEACE RIVER
CAMERON HILLS	UPPER PEACE RIVER
CHINCHAGA	UPPER PEACE RIVER
CHINCHAGA WEST	UPPER PEACE RIVER
EKWAN	UPPER PEACE RIVER
EKWAN SALES	UPPER PEACE RIVER
FARIA	UPPER PEACE RIVER
FIRE CREEK SALE	UPPER PEACE RIVER
FONTAS RIVER	UPPER PEACE RIVER
FOULWATER CREEK	UPPER PEACE RIVER
HAIG RIVER	UPPER PEACE RIVER
HAIG RIVER EAST	UPPER PEACE RIVER
HAIG RIVER N.	UPPER PEACE RIVER
HARO RIVER N.	UPPER PEACE RIVER
HAY RIVER	UPPER PEACE RIVER
HAY RIVER SOUTH	UPPER PEACE RIVER
JACKPOT CREEK	UPPER PEACE RIVER
JACKPOT CREEK S	UPPER PEACE RIVER
KEG RIVER	UPPER PEACE RIVER
KEG RIVER EAST	UPPER PEACE RIVER
KEG RIVER NORTH	UPPER PEACE RIVER
KEMP RIVER	UPPER PEACE RIVER
LENNARD CREEK	UPPER PEACE RIVER
MARLOW CREEK	UPPER PEACE RIVER
MUSKEG CREEK	UPPER PEACE RIVER
OSLAND LAKE	UPPER PEACE RIVER
OWL LAKE	UPPER PEACE RIVER
PADDLE PRAIR S.	UPPER PEACE RIVER
PADDLE PRAIRIE	UPPER PEACE RIVER
RAINBOW LAKE S.	UPPER PEACE RIVER
RAINBOW SALES	UPPER PEACE RIVER
SHEKILIE RVR N.	UPPER PEACE RIVER
SLOAT CREEK	UPPER PEACE RIVER
SNOWFALL CREEK	UPPER PEACE RIVER
SOUSA CRK E SLS	UPPER PEACE RIVER
STEEN RIVER	UPPER PEACE RIVER
TANGHE CREEK	UPPER PEACE RIVER
TANGHE CREEK #2	UPPER PEACE RIVER
TANGHE CREEK #3	UPPER PEACE RIVER
TIMBERWOLF	UPPER PEACE RIVER
U&T NTHRN LGHTS	UPPER PEACE RIVER
VIRGO SALES	UPPER PEACE RIVER
ZAMA LAKE	UPPER PEACE RIVER
ZAMA LAKE #2	UPPER PEACE RIVER
ZAMA LAKE #3	UPPER PEACE RIVER
ABEE	UPSTREAM BENS LAKE

MS Name	Design Area
ALGAR LAKE	UPSTREAM BENS LAKE
AMOCO SALES TAP	UPSTREAM BENS LAKE
ANDREW	UPSTREAM BENS LAKE
ARMSTRONG LAKE	UPSTREAM BENS LAKE
ATHABASCA	UPSTREAM BENS LAKE
ATHABASCA EAST	UPSTREAM BENS LAKE
ATMORE	UPSTREAM BENS LAKE
ATMORE B SALES	UPSTREAM BENS LAKE
ATMORE C	UPSTREAM BENS LAKE
AURORA SALES (N	UPSTREAM BENS LAKE
BAPTISTE	UPSTREAM BENS LAKE
BAPTISTE SOUTH	UPSTREAM BENS LAKE
BARICH	UPSTREAM BENS LAKE
BEAUVALLON	UPSTREAM BENS LAKE
BELLIS	UPSTREAM BENS LAKE
BELLIS SOUTH	UPSTREAM BENS LAKE
BIG BEND	UPSTREAM BENS LAKE
BIG BEND EAST	UPSTREAM BENS LAKE
BISON LAKE	UPSTREAM BENS LAKE
BLANCHET LAKE N	UPSTREAM BENS LAKE
BLEAK LAKE SLS	UPSTREAM BENS LAKE
BLUE JAY	UPSTREAM BENS LAKE
BOHN LAKE	UPSTREAM BENS LAKE
BOIVIN CREEK	UPSTREAM BENS LAKE
BOLLOQUE	UPSTREAM BENS LAKE
BOLLOQUE #2	UPSTREAM BENS LAKE
BOLLOQUE SOUTH	UPSTREAM BENS LAKE
BONNYVILLE	UPSTREAM BENS LAKE
BOYLE WEST	UPSTREAM BENS LAKE
BUFFALO CREEK I	UPSTREAM BENS LAKE
BURNT PINE	UPSTREAM BENS LAKE
CALLING LAKE	UPSTREAM BENS LAKE
CALLING LAKE (S	UPSTREAM BENS LAKE
CALLING LAKE E.	UPSTREAM BENS LAKE
CALLING LAKE W.	UPSTREAM BENS LAKE
CALLING LK N.	UPSTREAM BENS LAKE
CALLING LK S.	UPSTREAM BENS LAKE
CANOE LAKE	UPSTREAM BENS LAKE
CANOE LAKE SALE	UPSTREAM BENS LAKE
CARIBOU LAKE	UPSTREAM BENS LAKE
CARIBOU LAKE SL	UPSTREAM BENS LAKE
CASLAN	UPSTREAM BENS LAKE
CASLAN EAST	UPSTREAM BENS LAKE
CHARD	UPSTREAM BENS LAKE
CHARD SALES TAP	UPSTREAM BENS LAKE
CHEECHAM	UPSTREAM BENS LAKE
CHEECHAM W. SLS	UPSTREAM BENS LAKE
CHELSEA CREEK	UPSTREAM BENS LAKE
CHERRY GROVE E.	UPSTREAM BENS LAKE
CHESTER CREEK	UPSTREAM BENS LAKE
CHEVRON AURORA	UPSTREAM BENS LAKE
CHIPEWYAN RIVER	UPSTREAM BENS LAKE
CHIPEWYAN RIVER	UPSTREAM BENS LAKE
CHISHOLM MILLS	UPSTREAM BENS LAKE
CHRISTINA LAKE	UPSTREAM BENS LAKE
CHUMP LAKE	UPSTREAM BENS LAKE
CLANDONALD	UPSTREAM BENS LAKE
CLYDE	UPSTREAM BENS LAKE
CLYDE NORTH	UPSTREAM BENS LAKE
CLYDEN	UPSTREAM BENS LAKE
COLD LAKE BDR	UPSTREAM BENS LAKE
CONKLIN	UPSTREAM BENS LAKE
CONKLIN W SALES	UPSTREAM BENS LAKE
CONKLIN WEST	UPSTREAM BENS LAKE
CONKLIN WEST #2	UPSTREAM BENS LAKE
CONN LAKE	UPSTREAM BENS LAKE
CORNER LAKE #2	UPSTREAM BENS LAKE
CORRIGAL LAKE (	UPSTREAM BENS LAKE
CORRIGALL LAKE	UPSTREAM BENS LAKE
COTTONWOOD CRK	UPSTREAM BENS LAKE
CRAIGEND	UPSTREAM BENS LAKE
CRAIGEND EAST	UPSTREAM BENS LAKE
CRAIGEND NORTH	UPSTREAM BENS LAKE
CRAIGEND SOUTH	UPSTREAM BENS LAKE
CROW LAKE SALES	UPSTREAM BENS LAKE
CROW LAKE SOUTH	UPSTREAM BENS LAKE
DAKIN	UPSTREAM BENS LAKE
DANCING LAKE	UPSTREAM BENS LAKE
DAPP EAST	UPSTREAM BENS LAKE
DARLING CREEK	UPSTREAM BENS LAKE
DECRENE EAST	UPSTREAM BENS LAKE
DECRENE NORTH	UPSTREAM BENS LAKE
DEVENISH SOUTH	UPSTREAM BENS LAKE

MS Name	Design Area
DEVENISH WEST	UPSTREAM BENS LAKE
DONATVILLE	UPSTREAM BENS LAKE
DOVER SALES	UPSTREAM BENS LAKE
DROPOFF CREEK	UPSTREAM BENS LAKE
DUNKIRK RIVER	UPSTREAM BENS LAKE
EDWAND	UPSTREAM BENS LAKE
EDWAND SOUTH	UPSTREAM BENS LAKE
ELINOR LAKE	UPSTREAM BENS LAKE
ELINOR LAKE E.	UPSTREAM BENS LAKE
ELK POINT SALES	UPSTREAM BENS LAKE
FAIRYDELL CREEK	UPSTREAM BENS LAKE
FAWCETT RIVER	UPSTREAM BENS LAKE
FAWCETT RIVER E	UPSTREAM BENS LAKE
FAWCETT RVR N.	UPSTREAM BENS LAKE
FIGURE LAKE	UPSTREAM BENS LAKE
FIGURE LAKE #2	UPSTREAM BENS LAKE
FLAT LAKE	UPSTREAM BENS LAKE
FLAT LAKE NORTH	UPSTREAM BENS LAKE
FLATBUSH	UPSTREAM BENS LAKE
FOISY	UPSTREAM BENS LAKE
FORT KENT	UPSTREAM BENS LAKE
GLENDON	UPSTREAM BENS LAKE
GODS LAKE	UPSTREAM BENS LAKE
GODS LAKE SALES	UPSTREAM BENS LAKE
GOODRIDGE	UPSTREAM BENS LAKE
GOODRIDGE NORTH	UPSTREAM BENS LAKE
GRAHAM	UPSTREAM BENS LAKE
GRANDE CENTRE S	UPSTREAM BENS LAKE
GRANOR	UPSTREAM BENS LAKE
GREW LAKE	UPSTREAM BENS LAKE
GREW LK EAST	UPSTREAM BENS LAKE
GRIST LAKE	UPSTREAM BENS LAKE
HAIRY HILL	UPSTREAM BENS LAKE
HAMLIN	UPSTREAM BENS LAKE
HANGINGSTONE	UPSTREAM BENS LAKE
HELINA	UPSTREAM BENS LAKE
HOOLE	UPSTREAM BENS LAKE
HOUSE RIVER	UPSTREAM BENS LAKE
HOUSE RIVER	UPSTREAM BENS LAKE
HUNT CREEK	UPSTREAM BENS LAKE
HUNT CREEK #2	UPSTREAM BENS LAKE
HYLO	UPSTREAM BENS LAKE
HYLO SOUTH	UPSTREAM BENS LAKE
INLAND SALES	UPSTREAM BENS LAKE
INLAND SOUTH	UPSTREAM BENS LAKE
IPIATIK LAKE	UPSTREAM BENS LAKE
IRISH	UPSTREAM BENS LAKE
ISLAND LAKE	UPSTREAM BENS LAKE
ISLAND LAKE #2	UPSTREAM BENS LAKE
JACKFISH CREEK	UPSTREAM BENS LAKE
JAPAN CANADA SA	UPSTREAM BENS LAKE
JARVIE NORTH	UPSTREAM BENS LAKE
KEHIWIN	UPSTREAM BENS LAKE
KENT	UPSTREAM BENS LAKE
KEPPLER CREEK	UPSTREAM BENS LAKE
KETTLE RIVER	UPSTREAM BENS LAKE
KETTLE RIVER N.	UPSTREAM BENS LAKE
KIDNEY LAKE	UPSTREAM BENS LAKE
KIKINO	UPSTREAM BENS LAKE
KIKINO NORTH	UPSTREAM BENS LAKE
KINOSIS	UPSTREAM BENS LAKE
KIRBY	UPSTREAM BENS LAKE
KIRBY NORTH	UPSTREAM BENS LAKE
KIRBY NORTH #2	UPSTREAM BENS LAKE
LAC LA BICHE	UPSTREAM BENS LAKE
LAC LA BICHE SL	UPSTREAM BENS LAKE
LACOREY	UPSTREAM BENS LAKE
LAFOND CREEK	UPSTREAM BENS LAKE
LANDON LAKE SLS	UPSTREAM BENS LAKE
LARKSPUR	UPSTREAM BENS LAKE
LAWRENCE LAKE	UPSTREAM BENS LAKE
LAWRENCE LAKE N	UPSTREAM BENS LAKE
LEISMER#1 (BP/A	UPSTREAM BENS LAKE
LEISMER#2 (DEVO	UPSTREAM BENS LAKE
LEMING LAKE SLS	UPSTREAM BENS LAKE
LIEGE	UPSTREAM BENS LAKE
LIEGE NORTH	UPSTREAM BENS LAKE
LINARIA	UPSTREAM BENS LAKE
LONG LAKE WEST	UPSTREAM BENS LAKE
LOSEMAN LAKE SL	UPSTREAM BENS LAKE
LOSEMAN LK SL#2	UPSTREAM BENS LAKE
LUCKY LAKE	UPSTREAM BENS LAKE
MACKAY RIVER	UPSTREAM BENS LAKE

MS Name	Design Area
MANATOKEN LAKE	UPSTREAM BENS LAKE
MARGUERITE L SL	UPSTREAM BENS LAKE
MARTEN HILLS	UPSTREAM BENS LAKE
MARTEN HILLS N.	UPSTREAM BENS LAKE
MARTEN HILLS S.	UPSTREAM BENS LAKE
MASTIN LAKE	UPSTREAM BENS LAKE
MAUGHAN	UPSTREAM BENS LAKE
MAY HILL	UPSTREAM BENS LAKE
MCMILLAN LAKE	UPSTREAM BENS LAKE
MEADOW CREEK	UPSTREAM BENS LAKE
MEADOW CREEK E.	UPSTREAM BENS LAKE
MEADOW CRK WEST	UPSTREAM BENS LAKE
MEANOOK	UPSTREAM BENS LAKE
MEYER	UPSTREAM BENS LAKE
MEYER B	UPSTREAM BENS LAKE
MILDRED LAKE NO	UPSTREAM BENS LAKE
MILDRED LK #2 S	UPSTREAM BENS LAKE
MILDRED LK SLS	UPSTREAM BENS LAKE
MILLS	UPSTREAM BENS LAKE
MITSUE	UPSTREAM BENS LAKE
MITSUE SALES	UPSTREAM BENS LAKE
MITSUE SOUTH	UPSTREAM BENS LAKE
MONS LAKE	UPSTREAM BENS LAKE
MONS LAKE EAST	UPSTREAM BENS LAKE
MOOSA EXCHANGE	UPSTREAM BENS LAKE
MOOSE PORTAGE	UPSTREAM BENS LAKE
MOOSELAKE RIVER	UPSTREAM BENS LAKE
MORECAMBE	UPSTREAM BENS LAKE
MOSS LAKE	UPSTREAM BENS LAKE
MOSS LAKE NORTH	UPSTREAM BENS LAKE
MUSKWA RIVER	UPSTREAM BENS LAKE
MYRNAM	UPSTREAM BENS LAKE
NESTOW	UPSTREAM BENS LAKE
NEWBROOK	UPSTREAM BENS LAKE
NIPISI	UPSTREAM BENS LAKE
NISBET LAKE	UPSTREAM BENS LAKE
NORTH DUNCAN	UPSTREAM BENS LAKE
NORTH HANGINGST	UPSTREAM BENS LAKE
NORTH THORNBURY	UPSTREAM BENS LAKE
OPAL	UPSTREAM BENS LAKE
ORLOFF LAKE	UPSTREAM BENS LAKE
ORLOFF LAKE S.	UPSTREAM BENS LAKE
OSBORNE LAKE	UPSTREAM BENS LAKE
OTAUWAU SALES	UPSTREAM BENS LAKE
OVERLEA	UPSTREAM BENS LAKE
OWLSEYE	UPSTREAM BENS LAKE
PAKAN LAKE	UPSTREAM BENS LAKE
PASTECHO RIVER	UPSTREAM BENS LAKE
PICHE LAKE	UPSTREAM BENS LAKE
PITLO	UPSTREAM BENS LAKE
PLEASANT WEST	UPSTREAM BENS LAKE
PROSPERITY	UPSTREAM BENS LAKE
RABBIT LAKE	UPSTREAM BENS LAKE
REDWATER B SL	UPSTREAM BENS LAKE
REDWATER SALES	UPSTREAM BENS LAKE
RICH LAKE	UPSTREAM BENS LAKE
RICHMOND	UPSTREAM BENS LAKE
ROCHESTER	UPSTREAM BENS LAKE
ROCK ISLAND LK	UPSTREAM BENS LAKE
ROCK ISLAND S2	UPSTREAM BENS LAKE
ROD LAKE	UPSTREAM BENS LAKE
ROD LAKE SALES	UPSTREAM BENS LAKE
ROSSBEAR LAKE	UPSTREAM BENS LAKE
ROURKE CREEK	UPSTREAM BENS LAKE
ROURKE CRK EAST	UPSTREAM BENS LAKE
ROYAL PARK	UPSTREAM BENS LAKE
RUSSELL CREEK	UPSTREAM BENS LAKE
RUTH LK SLS	UPSTREAM BENS LAKE
RUTH LK SLS #2	UPSTREAM BENS LAKE
RUTH LK SLS #3	UPSTREAM BENS LAKE
SADDLE LAKE N.	UPSTREAM BENS LAKE
SADDLE LAKE W.	UPSTREAM BENS LAKE
SALESKI	UPSTREAM BENS LAKE
SARRAIL SALES	UPSTREAM BENS LAKE
SAULTEAUX SALES	UPSTREAM BENS LAKE
SAWN LAKE	UPSTREAM BENS LAKE
SAWRIDGE SALES	UPSTREAM BENS LAKE
SEPTEMBER LK N.	UPSTREAM BENS LAKE
SIMON LAKES	UPSTREAM BENS LAKE
SLAWA NORTH	UPSTREAM BENS LAKE
SMITH	UPSTREAM BENS LAKE
SMITH WEST	UPSTREAM BENS LAKE
SPEAR LAKE	UPSTREAM BENS LAKE

MS Name	Design Area
SPRUCEFIELD	UPSTREAM BENS LAKE
SPURFIELD	UPSTREAM BENS LAKE
SQUARE LAKE	UPSTREAM BENS LAKE
ST. BRIDES	UPSTREAM BENS LAKE
ST. LINA	UPSTREAM BENS LAKE
ST. LINA NORTH	UPSTREAM BENS LAKE
ST. LINA WEST	UPSTREAM BENS LAKE
ST. PAUL SALES	UPSTREAM BENS LAKE
STEELE LAKE	UPSTREAM BENS LAKE
STONEY CREEK	UPSTREAM BENS LAKE
STONEY CREEK W.	UPSTREAM BENS LAKE
SUNDAY CREEK	UPSTREAM BENS LAKE
SUNDAY CREEK S.	UPSTREAM BENS LAKE
SUNDAY CREEK SA	UPSTREAM BENS LAKE
SUNDAY CREEK SO	UPSTREAM BENS LAKE
THICKWOOD HILLS	UPSTREAM BENS LAKE
THORHILD	UPSTREAM BENS LAKE
THORHILD SALES	UPSTREAM BENS LAKE
THORHILD WEST	UPSTREAM BENS LAKE
THORNBURY EAST	UPSTREAM BENS LAKE
THORNBURY MARIA	UPSTREAM BENS LAKE
THORNBURY NORTH	UPSTREAM BENS LAKE
THORNBURY WEST	UPSTREAM BENS LAKE
TIELAND	UPSTREAM BENS LAKE
TWEEDIE	UPSTREAM BENS LAKE
TWEEDIE SOUTH	UPSTREAM BENS LAKE
TWINLAKES CK SL	UPSTREAM BENS LAKE
UKALTA	UPSTREAM BENS LAKE
UKALTA EAST	UPSTREAM BENS LAKE
VANDERSTEENE LK	UPSTREAM BENS LAKE
VENTURES KV OIL	UPSTREAM BENS LAKE
VILNA	UPSTREAM BENS LAKE
VIMY	UPSTREAM BENS LAKE
WABASCA	UPSTREAM BENS LAKE
WADDELL CREEK	UPSTREAM BENS LAKE
WADDELL CREEK W	UPSTREAM BENS LAKE
WANDER TOWER (T	UPSTREAM BENS LAKE
WANDERING RIVER	UPSTREAM BENS LAKE
WARSPITE	UPSTREAM BENS LAKE
WARWICK	UPSTREAM BENS LAKE
WARWICK SOUTH	UPSTREAM BENS LAKE
WEASEL CREEK	UPSTREAM BENS LAKE
WEAVER LAKE	UPSTREAM BENS LAKE
WEAVER LAKE S.	UPSTREAM BENS LAKE
WESTLOCK	UPSTREAM BENS LAKE
WESTLOCK B	UPSTREAM BENS LAKE
WESTLOCK SALES	UPSTREAM BENS LAKE
WHISTWOW	UPSTREAM BENS LAKE
WHITFORD	UPSTREAM BENS LAKE
WIAU LAKE	UPSTREAM BENS LAKE
WIAU LAKE SOUTH	UPSTREAM BENS LAKE
WILLINGDON	UPSTREAM BENS LAKE
WILLOW RIVER	UPSTREAM BENS LAKE
WILLOW RIVER N	UPSTREAM BENS LAKE
WINEFRED RIVER	UPSTREAM BENS LAKE
WINEFRED RVR N.	UPSTREAM BENS LAKE
WINEFRED RVR S.	UPSTREAM BENS LAKE
WINEFRED RVR W.	UPSTREAM BENS LAKE
WOLVERINE RIVER	UPSTREAM BENS LAKE
ABC SALES #1	WESTERN MAINLINE
ABC SALES #2	WESTERN MAINLINE
ALBERTA-MNT REC	WESTERN MAINLINE
ALBERTA-MONTANA	WESTERN MAINLINE
ALLISON CRK SLS	WESTERN MAINLINE
BURNT TIMBER	WESTERN MAINLINE
CALDWELL SALES	WESTERN MAINLINE
CALLUM CREEK	WESTERN MAINLINE
COCHRANE EXTRCT	WESTERN MAINLINE
COLEMAN	WESTERN MAINLINE
COLEMAN SALES	WESTERN MAINLINE
CROSSFIELD	WESTERN MAINLINE
CROSSFIELD WEST	WESTERN MAINLINE
DUTCH CREEK SLS	WESTERN MAINLINE
E. CALGARY B SL	WESTERN MAINLINE
EAGLE HILL	WESTERN MAINLINE
EAST CALGARY	WESTERN MAINLINE
EAST CALGARY SA	WESTERN MAINLINE
FISH CREEK	WESTERN MAINLINE
GARRINGTON	WESTERN MAINLINE
GARRINGTON EAST	WESTERN MAINLINE
GARRINGTON SALE	WESTERN MAINLINE
HARMATTAN-LEDUC	WESTERN MAINLINE
HARTELL SOUTH	WESTERN MAINLINE

MS Name	Design Area
JACKSON CREEK	WESTERN MAINLINE
JUMPING POUND W	WESTERN MAINLINE
JUMPING POUND X	WESTERN MAINLINE
LUNDBRECK-COWLE	WESTERN MAINLINE
PRIDDIS SALES	WESTERN MAINLINE
QUIRK CREEK	WESTERN MAINLINE
SARATOGA SALES	WESTERN MAINLINE
SARCEE SALES	WESTERN MAINLINE
SUNDRE SALES	WESTERN MAINLINE
TURNER VALLEY X	WESTERN MAINLINE
WATER VALLEY	WESTERN MAINLINE
WATERTON #1	WESTERN MAINLINE
WATERTON #2	WESTERN MAINLINE
WATERTON INTERC	WESTERN MAINLINE
WATERTON SALES	WESTERN MAINLINE
WATERTON STRIP	WESTERN MAINLINE
WATR1/WATR2 SUM	WESTERN MAINLINE
WILDCAT HILLS	WESTERN MAINLINE

IGCAA-NGTL-003

Reference:

Section 2.0, page 12 of 62, lines 5 and 6, and Figure 2.2.1-1

Preamble:

IGCAA is seeking to understand the validity of the ratios shown on the Table. The 2002 and 2003 data points in Figure 2.2.1-1 used the revised methodology first introduced in the NGTL 2004 General Rate Application where it stated in Section 2.0, page 17, line 2 that "Simplifying assumptions have been eliminated making the analysis more robust;". Also on page 17 of that application it showed in Table 2.3-2 that the effect of increasing the accuracy of the methodology was to lower the average intra-Alberta to Ex-Alberta ratio from 46.3% to 44.9%, a reduction of 3% (46.3÷1.4 x 100). This suggests that that the pre-2002 data points are also overstated.

Request:

What is the 16 year average if each of the pre-2002 DOH ratios illustrated in Figure 2.2.1-1 are reduced by 3%?

Response:

The difference in results between using the two methods for the 2002 data is not a sufficient basis from which to conclude that each previous year is overstated. Therefore, NGTL does not see merit in recalculating a new historical average on this basis. Furthermore, it is not possible to recalculate the DOH for previous years using the new methodology.

IGCAA-NGTL-004

Reference:

Figures 2.3-2 and 2.3-3, page 37 of 62

Preamble:

These tables show how ATCO Pipelines has offloaded receipts from the dually connected stations, reducing the deliveries historically made from the Alberta System to ATCO Pipelines.

Request:

(a) What has been the impact on the intra-Alberta distance of haul due to the decline in receipts at dually connected stations?

(b) What has been the impact on the intra-Alberta distance of haul due to the decline in deliveries to ATCO Pipelines

Response:

(a) NGTL has not done, nor is it capable of doing, this type of analysis. Please refer to the response to BR-NGTL-002(h).

(b) NGTL has not done, nor is it capable of doing, this type of analysis. Please refer to the response to BR-NGTL-002(h).

IGCAA-NGTL-005

Reference:

Appendix 2A, DOH Results, pages 9 through 13 of 13

Preamble:

Numerous individual delivery stations DOH changed significantly in the 2003 Calendar Year study compared to the 2002 Calendar Year study as filed in the 2004 GRA

Request:

For each of the following stations, please provide an explanation of the primary reason(s) for the change in DOH.

Unit Number	Unit Name	2003 DOH (Km)	2002 DOH (Km)	Km Increase (Decrease)	% Increase (Decrease)
1250	Unity Border	33.5	86.4	-52.9	-61.2%
3052	Coleman Sales	466.9	512.9	-46.0	-9.0%
3060	Carrot Creek Sales	223.6	277.5	-53.9	-19.4%
3073	Priddis Sales	337.4	390.8	-53.4	-13.7%
3114	Wembley Sales	125.9	168.9	-43.0	-25.5%
3120	Mildred Lake Sales	237.8	198.6	39.2	19.7%
3123	Mildred Lk #2 Sales	232.8	204.2	28.6	14.0%
3304	Forestburg Sales	239.8	328.7	-88.9	-27.0%
3414	Hanna S B Sales	200.8	332.2	-131.4	-39.6%
3419	Inland Sales	244.9	275.4	-30.5	-11.1%
3435	Pan Can Inlet	540.2	594.6	-54.4	-9.1%
3439	Sheerness Sales	311.6	390.5	-78.9	-20.2%
3562	Amoco Sales Tap	192.8	60.6	132.2	218.2%
3605	Leming Lake Sales	88.4	52	36.4	70.0%
3611	Hermit Lake Sales	269.4	217.4	52.0	23.9%
3613	Shantz Sales	12.5	164.6	-152.1	-92.4%
3639	Vegreville Sales	236	274.3	-38.3	-14.0%
5007	House River	84.6	50.6	34.0	67.2%

IGCAA-NGTL-005

Response:

DOH depends on the volumes received at 900+ receipt stations and 100+ delivery stations, as well as operational requirements, pipe connectivity and hydraulics used to transport gas between the various receipt and delivery points.

As can be seen in the following examples based on 2002 and 2003 DOH data, the above factors can cause the DOH for individual stations to vary significantly from year to year.

1250 Unity Border
Unity Border's DOH is closely related to the volume of gas exported there. In 2002, the volume (and therefore DOH) for May through October were much higher than in other months, leading to a higher average DOH for the year.

3052 Coleman Sales
The primary difference between the two years was in February and March, when the DOH for 2002 was approximately 150 km longer than in 2003. During these two months, a larger region supplied gas to Coleman in 2002 than in 2003, and the station's DOH was therefore longer. For example, in March of 2002, the supply region extended 40 km north of Slave Lake compressor, while in 2003 it only extended up to the compressor station.

Similarly, in 2002, Coleman's supply area extended further up the South Lateral, and further into the Rimby/Westerose area.

3060 Carrot Creek Sales
Carrot Creek Sales only flowed a few months (primarily winter months) each in 2002 and 2003, with erratic volumes. Depending on the volume, gas can be supplied by immediately adjacent receipt stations (as in March and December 2003), or all the way up the North West Mainline (i.e. Marlow Creek and Bootis Hill) as in January 2002. Because the supply area was considerably smaller for some months in 2003, the station's DOH was also shorter.

3073 Priddis Sales
The gas supplying Priddis Sales largely comes from the same areas as that for Coleman Sales. Similarly, the DOH for Priddis Sales was higher in February and March of 2002 compared with these months in 2003. Please refer to the above explanation for Coleman Sales.

3114 Wembly Sales
While Wembley Sales receives gas from as far away as Bootis Hill, the DOH for the station is largely dependent on how much gas it receives from neighboring Wembley Receipt. In 2002, a smaller proportion of the station's gas was supplied from Wembley

Receipt, therefore, the station's DOH was longer in 2002 than in 2003. For example, in December 2002, 28% of the supply came from Wembley Receipt, compared with 64% in December 2003. In November 2003, when Wembley Sales' DOH was at its minimum for the two years, 74% of its gas was supplied by the neighboring receipt.

3120 Mildred Lake Sales

The Fort McMurray region experienced a large increase in demand for gas in 2003 related to the oil sands projects. The supply region therefore had to increase substantially. For example, in January 2002, Mildred Lake Sales was supplied solely by the Liege region, with the westernmost supply coming from approximately range 22 west of the 4th meridian. A year later, in January 2003, the region of supply extended much further west through the Martin Hills region (approximately range 18 west of the 5th meridian). In 2003, the DOH therefore increased with the larger area of supply.

3123 Mildred Lake #2 Sales

Mildred Lake #2 Sales is situated adjacent to 3120 Mildred Lake Sales, and therefore both stations have a similar DOH. Some minor differences result from flow differences between the two stations (i.e., Mildred Lake #2 had negligible flow in November and December 2003, while Mildred Lake had full flow during these months). Otherwise, the explanation of the changes in DOH from 2002 to 2003 is the same for both stations (refer to 3120 Mildred Lake Sales).

3304 Forestburg Sales

The DOH for Forestburg Sales decreased in 2003 due to operational changes on the North Lateral during some months. These changes isolated some sections of mainline on the North Lateral, and as a result, this sales station was supplied from the immediate area (DOH ~ 35 km) as opposed to a usual supply area encompassing the entire northeast portion of the province (DOH ~ 300 km).

3414 Hanna South B Sales

In November and December 2003, operational changes which isolated the 16" and 24" mainlines from Farrell Lake to Princess caused the station to receive only local gas as opposed to receiving gas from the entire northeast area of the province.

In addition, in 2003 compared with 2002, more of the gas from the northeast of the province flowed to the Ft. McMurray and Cold Lake regions. This decreased the supply area for Hanna South B Sales, resulting in a shorter DOH in 2003.

For these two reasons, the DOH for Hanna South B Sales decreased sharply in 2003.

3419 Inland Sales
The DOH for Inland Sales decreased in 2003 as more gas flowed north into demand in the Fort McMurray region. This decreased the supply region for Inland Sales, resulting in a shorter DOH.

3435 Pan Can Inlet
The biggest difference in DOH between 2002 and 2003 was the difference in flow paths caused by increased demand for gas in the northeast of the province. For example, in July 2003, the entire Liege region was excluded from this stations flow path, whereas in 2002 this region was included.

3439 Sheerness Sales
Sheerness Sales is located near Hanna South B Sales, and the reasons for the difference in DOH between 2002 and 2003 are similar for the two stations. Please refer to the above explanation for Hanna South B Sales.

3562 Amoco Sales Tap
Amoco Sales Tap is a small volume station, which only flowed in the winter months during 2002 and 2003. Its supply path is influenced by nearby Leming Lake Sales. When demand at Leming Lake Sales increased in January 2003, the flow path for Amoco Sales Tap changed significantly. These demand changes meant that in 2003 gas is supplied from north of the station (Kirby segment) as opposed to south (Cold Lake). The net result was a sharp increase in DOH for the station in 2003.

3605 Leming Lake Sales
An increase in demand at Leming Lake Sales in January 2003 was a key driving force in the station's change in path and DOH. The new supply area became the neighboring Kirby region as opposed to the local Cold Lake region.

3611 Hermit Lake Sales
In June, July and August 2002 the delivery volume to Hermit Lake sales was low, and the station was supplied entirely by neighboring Hermit Lake receipt, as opposed to the usual situation where gas is supplied from the furthest northwest portion of the system (Bootis Hill and Marlow Creek). This lowered the average for the year.

3613 Shantz Sales
The DOH for Shantz spiked to over 300 km in the summer of 2002, but was constant at around 12 km for the other months of 2002, as well as throughout 2003. Operational changes were the reason for this spike in 2002. Isolation of the 30" mainline between Shrader and Beiseker compressor stations caused the station to be supplied only by local gas, as opposed to receiving gas from the entire Peace region.

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3639 Vegreville Sales
Vegreville Sales is located near Inland Sales, and has similar flow path and DOH. Please refer to the above explanation of the changes in DOH for Inland Sales.

5007 House River
In 2003 House River only flowed in January through April. The primary difference between 2002 and 2003 was that in January 2003 the station's path included the entire Kirby region, while in 2002 the path only included a short section immediately south of the station.

IGCAA-NGTL-006

Reference:

Application Section 2, page 9 of 62

Preamble:

IGCAA wants to understand more about the rational for the cost allocation methodology used for the existing FT-P service. NGTL indicates that: "the charge for the average transmission component for FT-P service is said to equal the charge for the average transmission component of FT-R service.

Request:

(a) Please explain exactly how NGTL establishes rates for FT-P service.

(b) How are NGTL's existing methodology for establishing FT-P rates reflective of the costs actually incurred by NGTL in providing FT-P service?

(c) Please describe all of the attributes of FT-P service that make it more or less flexible than combined FT-R/ FT-A service.

Response:

(a) All services (receipt, export delivery and intra-Alberta) require gas to be measured either onto or from the Alberta System. Metering is a standard function and has an average standard metering cost of 1.42¢/Mcf on each of the receipt and delivery sides.

The FT-R rate incorporates a transmission component to reflect the cost of facilities required to transport the gas. The transmission component for the average FT-R rate is 14.09¢/Mcf. The FT-R rate for a particular receipt point is based on the cost of the facilities designed to transport gas from the specific receipt point to the major delivery points so the rate of any particular receipt point will vary around the average. The average FT-R rate combines the receipt metering component of 1.42¢/Mcf with the average transmission component of 14.09¢/Mcf. The floor prices defines the minimum rate to receive gas onto the system and consists of the receipt metering component of 1.42¢/Mcf and a

minimum transmission component of 6.09¢/Mcf for a total of 7.51¢/Mcf. The ceiling price defines the maximum rate to receive gas onto the system and consists of the metering component of 1.42¢/Mcf and a maximum transmission component of 22.09¢/Mcf for a total of 23.51¢/Mcf.

Since the rate for FT-P is based on the full path cost of providing service from specific receipt points to a specific intra-Alberta delivery point, it is comprised of the 1.42¢/Mcf receipt metering, a transmission component contained within the floor and ceiling range, and the 1.42¢/Mcf delivery metering component. To be consistent with FT-R, the minimum transmission component cost for the FT-P is 6.09¢/Mcf, the maximum transmission component cost is 22.09¢/Mcf and the average transmission cost to move the average intra-Alberta distance of haul will be 14.09¢/Mcf. Rates for FT-P between the floor and ceiling values are increased based on 25-km distance intervals. The average intra-Alberta distance of haul is 250 km (2003 Distance of Haul Study, rounded to the nearest 25 km). Therefore there are nine increments between the minimum FT-P distance of 25 km and the average distance of 250 km, resulting in a transmission cost component of 0.89¢/Mcf per 25-km increment. Therefore, the FT-P transmission component is based on the system average unit transmission cost, bounded by the floor and ceiling rate and is reflective of the costs actually incurred by NGTL in providing FT-P service.

(b) Please refer to the response in (a).

(c) Please note that the attributes ascribed to the FT-R/FT-A combination are based on FT-R. The primary differences between FT-P service and the FT-R/FT-A service combination are provided below.

Service Attribute	**FT-P Service**	**FT-R/FT-A Combination**
Access to NIT	No access to NIT	Access to NIT
No. of Receipt Points	Specified Receipt Points	All Receipt Points
No. of Delivery Points	One per contract	n/a
Minimum Volume	Min. 5.0 MMcf/d	No minimum
Type of Rate	Monthly Demand	Monthly Demand
Rate	FT-P Table, function of FT-R rates(distance only)	Receipt Point Specific (diameter/distance)
Term Differentiated Rates	Yes	Yes
Monthly Charges	Demand x Rate + over-run	Demand x Rate + over-run
Fuel Allocation	50% of System Fuel	100% of System Fuel
Term (Facilities)	Primary Term	Primary term + three years
Renewal Notice	Minimum one year	Minimum one year
Capacity Release	No Capacity Release	Capacity Release
Transfers	Transfers only to other receipt points in contract	Transfers allowed
Term Swaps	No Term Swaps	Term Swaps

Service Attribute	FT-P Service	FT-R/FT-A Combination
Priority	Firm Priority	Firm Priority
Renewal Notice	One year	One Year
Conversion on Renewal	To FT-P or FT-R	To FT-P or FT-R
Renewal Term	Minimum one year	Minimum one year
Inventory Account	Separate Account for Service	Once Customer Account
Balance Zone	Not allowed for account	Greater of 2 TJ or 4%
Imbalances	Rolled into customer account	Must meet Balance Zone
Assignments	All volume only	All or partial volume
Accountability	Primary Term + FCS	Primary + Secondary Term

Whether FT-P service is more or less flexible than the FT-R/FT-A service combination depends upon the value each customer places on each of the attributes listed in the table above. However, in general some attributes of FT-P would be considered to be more restrictive than the corresponding attributes for the FT-R/FT-A service combination. This is reflected in the FT-P rate.

IGCAA-NGTL-007

Reference:

Application Appendix 2A (Appendix 1 of Appendix 2A), page 3 of 13

Preamble:

NGTL describes how it calculates the distance of haul for individual delivery stations. In the past NGTL has described there being a "equal proration assumption" involved in this methodology.

Request:

(a) Please describe the equal proration assumption.

(b) Does the equal proration assumption general result in deliveries being made in the northern part of NGTL's system being ascribed a lower distance of haul (and therefore cost) than deliveries made in the southern part of the province? If so, how does this accord with the allocating costs based on the principle cost causation?

Response:

(a) The equal proration assumption was used in the old methodology for calculating the DOH. This methodology started with the northernmost delivery station on the Alberta System that had significant volume and allocated upstream receipt volumes on a prorata basis to satisfy the station's delivery requirements. In 2004 a revised methodology was used to calculate the DOH which, as described on Page 3 of 13 of Appendix 1 to Appendix 2A of the Application, uses a hydraulic simulation to balance the gas received at each receipt point against the volume of gas delivered to each delivery point.

(b) As the revised DOH methodology was approved in 2004, the equal proration assumption described above is no longer used in the DOH calculation.

IGCAA-NGTL-008

Reference:

Section 2.2.1, Appropriate Cost Allocation for the Alberta System, Page 6 of 62, lines 3 through 7

Preamble:

NGTL discusses allocation of compression costs to individual pipe assets using the power required to move gas through each piece of pipe

Request:

(a) Is it NGTL's understanding that deliveries of gas (such as those for intra-Alberta deliveries made along the pipeline system) off a pipeline segment result in less compression (or power) requirements for the remaining downstream pipeline segments than if no deliveries had been made?

(b) In cases where deliveries of gas off a pipeline segment result in less power requirements for downstream pipeline segments, have any of these efficiencies been attributed to the cost of delivering gas off the system, or do the benefits of less power requirements get allocated solely to the downstream pipeline segment?

Response:

(a) The Alberta System is an integrated system consisting of 900+ receipt meter stations, 100+ delivery meter stations, 22,000+ km of interconnected pipe and approximately 100 compressor units. It is not determinable in a general way if the deliveries of gas off a pipeline segment (such as those for intra-Alberta deliveries made along the pipeline system) result in less or more compression for downstream pipeline segments than if no deliveries had been made.

(b) Please refer to the response to (a). The costs or benefits associated with changes to compression requirements due to intra-Alberta deliveries are shared by all shippers.

IGCAA-NGTL-009

Reference:

Section 2.2.1, Appropriate Cost Allocation for the Alberta System, page 17 of 62, lines 9 through 13

Preamble:

NGTL discusses the yearly variability with COH

Request:

(a) Given that the distance portion of COH is the same as that in DOH, what causes the greater annual variability in COH?

(b) To the extent that it is not answered in a) above, please indicate the relative ranking of the following factors in terms of their impact on the changes to the 2003 COH study as compared to the 2002 COH study: distance of haul, cost index changes, flow path changes, and other.

Response:

(a) Please refer to the response to EnCana-NGTL-009(a).

(b) Please refer to the response to EnCana-NGTL-009(a).

IGCAA-NGTL-010

Reference:

Section 2.2.2, Cost of Service Analysis, page 28 of 62, lines 9 through 14

Preamble:

NGTL states that "Alternative 5 produces the most precisely measured allocation of transmission costs to the intra-Alberta delivery service … As the FT-P service is a full path service based on the distance between the distance between the receipt points and the delivery point, a better determination of actual costs can be made."

Request:

(a) Given NGTL's statement above, wouldn't it be fair to say that the existing COS methodology already allocates too high of a level of transmission costs to intra-Alberta delivery service as achieved through either the full path FT-P service or the FT-R/ FT-A combination?

(b) Wouldn't adding further transmission costs to the FT-A portion of the FT-R/ FT-A service combination exacerbate this problem?

(c) Does NGTL agree that, all other things being equal, that a more restrictive service should have a lower price than a less restrictive service?

(d) Given that an average FT-P price of 5.63 cents/Mcf represents the most precisely measured allocation of transmission costs to the intra-Alberta delivery service (an average of 2.79 cents/Mcf), doesn't it appear that the current FT-P service is highly overpriced, considering both the cost of providing the service and the service restrictions?

Response:

(a) No. Please refer to the response to CG-NGTL-013(a).

(b) No. NGTL disagrees with the assertion that there is a problem with the existing methodology. Providing that the increase in transmission costs on the FT-A rate

is accompanied by an offsetting change in the FT-R and/or FT-D rates such that the following formula is satisfied then there would be no impact.

Transmission Component of (FT-R + FT-A) = 50% x Transmission Component of (FT-R + FT-D)

(c) Yes, all other things being equal. What one group may see as restrictive may not be seen as restrictive by another group.

(d) No.

IGCAA-NGTL-011

Reference:

Appendix 2B, Alternative 5, page 53 of 69, lines 15 through 17

Preamble:

NGTL estimates the FT-P contract demand by adding the current FT-P contract demand plus the current FT-A throughput forecast adjusted to have a contract utilization rate of 75%.

Request:

(a) What is NGTL's rationale for applying a contract utilization rate of 75% to the FT-A throughput to estimate a contract demand level?

(b) What is NGTL's best estimate for load factors for all intra-Alberta deliveries?

(c) What would the impact be of a 50% utilization rate be for the FT-P toll in Alternative 5.

Response:

(a) NGTL used 75% for illustrative purposes. However, the utilization rate was based on previous flow patterns for the intra-Alberta market, where the lowest volume flow month was compared to the highest monthly volume in the year.

(b) Please refer to the response to (a).

(c) If for Alternative 5 FT-P load factor were changed from 75% to 50% the rates would be:

Total (Transmission plus metering)	¢/Mcf/d
FT-R	14.65
FT-D	16.17
FT-P	4.83

IGCAA-NGTL-012

Reference:

Appendix 2B, Alternative 6, page 64 of 69, lines 20 through 22

Preamble:

NGTL estimates the FT-A contract demand as the FT-A throughput and states that for most services, the contract demand is very close to the forecasted throughput.

Request:

(a) Why does NGTL use a 100% contract utilization assumption for FT-A in Alternative 6, given that a 75% contract utilization rate was used in Alternative 5 for converting the FT-A service to FT-P?

(b) What would the FT-A rate be in Alternative 6 if a 75% contract utilization rate was assumed

Response:

(a) FT-A service has never had a demand service. NGTL maintains the FT-A service as a commodity rate in Alternative 6 and in Alternative 5 it converts it to a demand rate. For further explanation of how the 75% was obtained in Alternative 5 please refer to the response to IGCAA-NGTL-011.

(b) A commodity-based service has no utilization rate and therefore NGTL cannot use something less than 100%.

IGCAA-NGTL-013

Reference:

Appendix 2C, COH results, pages 10 through 14 of 14

Preamble:

Numerous individual delivery stations COH changed significantly in the 2003 Calendar Year study compared to the 2002 Calendar Year study as filed in the 2004 GRA

Request:

For each of the following stations, please provide an explanation of the primary reason(s) for the change in COH.

Unit Number	Unit Name	2003 COH (Km $)	2002 COH (Km $)	COH Increase (Decrease)	% Increase (Decrease)
1250	Unity Border	398.9	767.7	-368.8	-48.0%
3058	Lundbreck-Cowley	502.2	356.1	146.1	41.0%
3063	Virginia Hills	460.1	288.1	172.0	59.7%
3072	Paddy Creek Sales	63.8	34.4	29.4	85.5%
3080	Louise Creek Sales	409.6	287.8	121.8	42.3%
3086	Pine Creek Sales	417.8	227.4	190.4	83.7%
3095	Sakwatamau Sales	355.6	217.9	137.7	63.2%
3097	Chickadee Creek Sales	333	225.3	107.7	47.8%
3112	Falher Sales	879.4	630.2	249.2	39.5%
3120	Mildred Lake Sales	1059.5	932.7	126.8	13.6%
3304	Forestburg Sales	881.1	1135.9	-254.8	-22.4%
3414	Hanna S B Sales	853.5	1275.6	-422.1	-33.1%
3438	Redwater B Sales	915.5	792.9	122.6	15.5%
3562	Amoco Sales Tap	1085.7	375.9	709.8	188.8%
3604	Marguerite Lake Sales	1037	312.2	724.8	232.2%
3605	Leming Lake Sales	513.6	294.7	218.9	74.3%
3613	Shantz Sales	55.1	305.7	-250.6	-82.0%
5007	House River	668	456.7	211.3	46.3%

IGCAA-NGTL-013

Response:

Similar to DOH, COH depends on the volumes received at 900+ receipt stations and 100+ delivery stations, as well as operational requirements, pipe connectivity and hydraulics used to transport gas between the various receipt and delivery points. In addition, COH is also affected by a cost index that reflects the cost of transporting gas through different diameters of pipe.

As can be seen in the following examples based on 2002 and 2003 COH data, the above factors can cause the COH for individual stations to vary significantly from year to year.

1250 Unity Border
The reasons for the change in COH are similar to the reasons for the change in DOH. Please refer to the response to IGCAA-NGTL-005 for the same station.

3058 Lundbreck-Cowley
Toward the end of 2003 the path for Lundbreck-Cowley stretched further northeastward up the South Lateral. This increased the overall average COH and DOH for the year.

3063 Virginia Hills
Virginia Hills is located near Sakwatamau Sales and experienced similar COH patterns as that station. Please refer to the explanation for Sakwatamau Sales below.

3072 Paddy Creek Sales
The flow path and COH/DOH for Paddy Creek Sales is typically very stable, with all its flow supplied by neighboring West Pembina South receipt station. However, in November 2003 the path for Paddy Creek Sales included the entire northwest of the province up to Bootis Hill. Therefore, the average COH for 2003 was significantly more than in 2002.

3080 Louise Creek Sales
Louise Creek Sales is located near Sakwatamau Sales, and for 2003 both were affected by similar changes in flow path. Please refer to the explanation for Sakwatumau Sales below.

3086 Pine Creek Sales
During several months the COH and DOH for Pine Creek Sales were significantly higher in 2003 than 2002. In these months gas was being pulled from as far away as Paul Lake compressor (2003) while in 2002 it was only coming from as far as Carson Creek. Therefore the average COH increased in 2003.

IGCAA-NGTL-013

3095 Sakwatamau Sales
Similar to Pine Creek Sales, the COH and DOH for Sakwatamau Sales vary from month to month depending on the flow patterns in the local area. Longer flow paths in January, May, and June of 2003 raised the average COH and DOH for that year compared to the preceding year.

3097 Chickadee Creek Sales
Chickadee Creek Sales is near Pine Creek sales, and both had very similar COH trends between 2002 and 2003. Please refer to the explanation for Pine Creek Sales above.

3112 Fahler Sales
Fahler Sales can be supplied by the receipt stations immediately upstream (as in December 2002) or by all stations to the end of the Heart lateral (as in December 2003). A longer average DOH in 2003 caused the increase in COH for this station.

3120 Mildred Lake Sales
The reasons for the change in COH are similar to the reasons for the change in DOH. Please refer to the response to IGCAA-NGTL-005 for the same station.

3304 Forestburg Sales
The reasons for the change in COH are similar to the reasons for the change in DOH. Please refer to the response to IGCAA-NGTL-005 for the same station.

3414 Hanna South B Sales
The reasons for the change in COH are similar to the reasons for the change in DOH. Please refer to the response to IGCAA-NGTL-005 for the same station.

3438 Redwater B Sales
The COH by month is highly variable for Redwater B Sales as this station can be fully supplied by the immediately adjacent Opal receipt station (common during summer months) or its path can include Bootis Hill in the northwest of the province (common during winter months). In 2003 compared with 2002 the station had fewer months where it was supplied locally, resulting in a higher average COH for the year.

3562 Amoco Sales Tap
The reasons for the change in COH are similar to the reasons for the change in DOH. Please refer to the response to IGCAA-NGTL-005 for the same station.

3604 Marguerite Lake Sales
Marguerite Lake Sales is situated near Leming Lake Sales, and both have somewhat similar flow paths. Please refer to the response to IGCAA-NGTL-005 for Leming Lake Sales.

IGCAA-NGTL-013

One important difference between the two stations is the segment of pipe from Leming Lake north to Kirby. Depending on local demand, it can flow to both stations (as in July 2003), or only to Leming Lake Sales (as in December 2003). In December 2003 this section of pipe supplied 64% of the gas to Leming Lake Sales, but was not in the path of Marguerite Lake Sales. This can create significant differences in DOH and COH between the two stations.

3605 Leming Lake Sales
The reasons for the change in COH are similar to the reasons for the change in DOH. Please refer to the response to IGCAA-NGTL-005 for the same station.

3613 Shantz Sales
The reasons for the change in COH are similar to the reasons for the change in DOH. Please refer to the response to IGCAA-NGTL-005 for the same station.

5007 House River
The reasons for the change in COH are similar to the reasons for the change in DOH. Please refer to the response to IGCAA-NGTL-005 for the same station.

IGCAA-NGTL-014(a) to (d)

Reference:

Appendix 2B, page 48 of 69

Preamble:

IGCAA wants further information regarding NGTL's Alternative 5 and how NGTL came up with its intra-Alberta distance of haul.

Request:

(a) How did NGTL calculate intra-Alberta distance of haul for point to points of 124 km? Please describe NGTL's methodology and what assumptions were made by NGTL. Include all data NGTL used to come up with this calculation of distance of haul including the receipt points that were assumed to be delivering to individual delivery points.

(b) Was it assumed that FT-P under Alternative 5 would be subject to a postage stamp?

(c) Under Alternative 5 would delivery points still have to be matched with specific receipt points as with the existing FT-P service?

(d) What effect would Alternative 5 have on the liquidity of the existing NIT market?

Response:

(a) The intra-Alberta DOH of 124 km was obtained from the DOH study by adding the product of the distance-volume of all the intra-Alberta delivery stations, except extraction, and dividing the result by the total volume of the intra-Alberta delivery stations, except extraction. The total distance-volume of 1,245,408,376 is divided by the total volume of 10,050,217 which equals 123.9. This value is rounded to the nearest whole number, 124 km. The data used to calculate these numbers are in the 2005 GRA Appendix 2A "Distance of Haul Study".

IGCAA-NGTL-014(a) to (d)

(b) No. An average FT-P rate has been provided. Specific FT-P rates would be determined for each contract on the basis of the specified receipt and delivery points.

(c) Yes.

(d) Please refer to the response to BR-NGTL-013(e).

IGCAA-NGTL-014(e)

Reference:

Appendix 2B, page 48 of 69

Preamble:

IGCAA wants further information regarding NGTL's Alternative 5 and how NGTL came up with its intra-Alberta distance of haul.

Request:

Could implementation of Alternative 5 result in establishment of an intra-Alberta NIT market if holders of FT-P service were allowed to do inventory transfers amongst themselves?

Response:

No. FT-P service is a points to point service. Providing inventory transfers is not consistent with this structure. Inventory transfers would allow gas from all over the province to be pooled which would provide FT-P users access to gas from potentially anywhere in the province at a rate based on receiving gas from specific receipt points. FT-P service currently allows unlimited receipt points. As a result, sufficient flexibility to access supply can be achieved by increasing the number of receipt stations included in the FT-P contract.

IGCAA-NGTL-015

Reference:

Application Appendix 2B, page 59 of 69

Preamble:

IGCAA has questions regarding alternative 6.

Request:

(a) How did NGTL derive the 124 km distance of haul for intra-Alberta delivery in Table 7.1-2?

(b) Confirm whether NGTL used the same methodology to derive the 124 km distance of haul for points to points as it used in Alternative 5.

Response:

(a) Please refer to the response to IGCAA-NGTL-014(a).

(b) Confirmed.

IGCAA-NGTL-016(a) to (c)

Reference:

Section 2.0, pages 53 through 59

Preamble:

IGCAA is seeking to understand the logic and implications of the alternative NGTL examined in making FT-A a demand service, introducing an IT-A service, the replacing of the MAV component of the FCS contract with primary term FT-A or FT-P service contracts and the alternative EAV options.

Request:

(a) In the modified FT-A service NGTL in Table 2.4.3-1 states the rate as $15.21/103m3/month compared to the current FT-A commodity rate of $0.50/103m3. Is the modified FT-A rate set at a level NGTL believes would result in the same revenue generation as will be generated under the current FT-A structure?

(b) What load factor does NGTL estimate volumes would move under the modified FT-A structure?

(c) What proportion of intra-Alberta deliveries does NGTL estimate would move under FT-A, FT-P and IT-A under a modified FT-A service regime?

Response:

(a) No. The rate for the modified FT-A service is simply the current FT-A commodity rate converted to a monthly value. This number was used for illustrative purposes only to provide a comparison to the existing rate for FT-A service.

(b) NGTL has not performed detailed analysis on the load factor for this modified service. Please refer to the response to IGCAA-NGTL-011(a).

(c) NGTL does not have a forecast of intra-Alberta deliveries under such a scenario.

IGCAA-NGTL-016(d)

Reference:

Section 2.0, pages 53 through 59

Preamble:

IGCAA is seeking to understand the logic and implications of the alternative NGTL examined in making FT-A a demand service, introducing an IT-A service, the replacing of the MAV component of the FCS contract with primary term FT-A or FT-P service contracts and the alternative EAV options.

Request:

On lines 11 and 12 of page 56 NGTL states, " Based on 2004 data, the primary term would be 15 years or greater for most of the existing FCS contracts. In making this calculation is NGTL assuming that, despite the EUB stating in past decisions that intra-Alberta delivery customers pay their fair share of NGTL's costs, no cost contribution has been made to the cost of intra-Alberta delivery stations except for the period of time when FT-A charges have been paid?

Response:

No. FCS contracts are presently life-of-facility contracts held for intra-Alberta delivery meter stations. The customer is responsible for the net book value of the facility and the annual cost of service. The MAV is calculated each year based on the annual cost of service. As a result, prior year revenues have accounted for prior year costs. NGTL calculated these primary terms based on the 2004 net book value for the respective facility, the actual 2004 volumes delivered through the facilities and the applied for 2005 FT-A rate. This level of primary term represents the customer's remaining or future obligation.

IGCAA-NGTL-016(e)

Reference:

Section 2.0, pages 53 through 59

Preamble:

IGCAA is seeking to understand the logic and implications of the alternative NGTL examined in making FT-A a demand service, introducing an IT-A service, the replacing of the MAV component of the FCS contract with primary term FT-A or FT-P service contracts and the alternative EAV options.

Request:

How many intra-Alberta delivery stations have been in service for (a) 5 years or less? (b) more than 5 years but less than 10 years? (c) more than 10 years but less than 15 years? (d) more than 15 years?

Response:

Please refer to the table below for the delivery station information.

In-service years	Number of Delivery Stations
5 yrs or less	17
> 5 yrs < 10 yrs	19
> 10 yrs < 15 yrs	31
> 15 yrs	78
Total:	145

IGCAA-NGTL-016(f) and (g)

Reference:

Section 2.0, pages 53 through 59

Preamble:

IGCAA is seeking to understand the logic and implications of the alternative NGTL examined in making FT-A a demand service, introducing an IT-A service, the replacing of the MAV component of the FCS contract with primary term FT-A or FT-P service contracts and the alternative EAV options.

Request:

(f) All of the discussion of the EAV options on pages 57 through 59 are focused on extensions built to meet intra-Alberta delivery requirements. IGCAA understands that the EAV guidelines apply to both extension built for intra-Alberta delivery requirements and extensions built for intra-Alberta receipt requirements. Is this correct?

(g) For extensions built to meet intra-Alberta receipt requirements what would the EAV provisions under each of the options?

Response:

(f) No.

(g) For extensions built to connect receipt gas, the associated primary and secondary term commitments for FT-R service would apply. There is no EAV obligation for receipt service.

IGCAA-NGTL-017

Reference:

Appendix 2D page 83, lines 7 through 10.

Preamble:

IGCAA is seeking to understand the market environment that NGTL faces. Dr. Gaske states that "A proper economic analysis in a competitive market therefore will recognize that many of the current receipt revenues may not exist in the future if the pipeline fails to provide transportation access to large new nearby gas consumption markets." NGTL's and Dr. Gaske's evidence discusses receipt stations that are dually connected to ATCO Pipelines as examples of this.

Request:

Has ATCO's Muskeg River pipeline also attracted receipt volumes directly onto that pipeline that would otherwise have gone to NGTL?

Response:

Yes. Receipts that were directly connected to the Alberta System were offloaded to ATCO's Muskeg River pipeline in 2003. Approximately 25 MMcf/d of production that is directly connected to and is currently flowing on the Muskeg River pipeline would have been transported on the Alberta System had the Muskeg River pipeline not been constructed.

IGCAA-NGTL-018

Reference:

Appendix 2D, page 66, lines

Preamble:

IGCAA is seeking to understand the cost allocation logic of Dr. Gaske. Dr. Gaske states that "it is difficult to say that this allocation approach is a more accurate method for determining the costs incurred to provide FT-R/FT-A service combinations where *contract* flow distances may be very different from *physical* flow distances."

Request:

On the NGTL system does the cost to move gas to an intra-Alberta delivery point vary if the contract flow distance varies?

Response:

No.

IGCAA-NGTL-019

Reference:

Appendix 2D, page 67, lines 16 to 20

Preamble:

IGCAA is seeking to understand the cost allocation logic of Dr. Gaske. Following the 1999 Products and Pricing Hearing NGTL got out of the business of building new "laterals" as a means of ensuring greater economic accountability. However its existing pipeline structure was not affected.

Request:

To the extent one was to classify portions of the existing pipeline system as "laterals" could not some of these costs arguably be assigned to receipt service?

Response:

Yes.

IGCAA-NGTL-020

Reference:

Appendix 2D, page 77, lines 10 to 13

Preamble:

IGCAA seeks to understand the impact of Dr. Gaske's suggestion that in Alternative 3 and 4 the FT-A should be converted to a demand charge.

Request:

Given that there would be considerable unutilized demand charges due to low load factor customers, what level of FT-A demand charge in alternatives 3 and 4 would yield the same revenue as the commodity based FT-A tolls NGTL sets out in these alternatives?

Response:

Under Alternatives 3 and 4 NGTL is not proposing a demand rate for FT-A service. However, the table below provides the illustrative FT-A demand rates that would collect the same FT-A revenue for Alternatives 3 and 4, based on different load factor assumptions.

Alternative 3	at 100% LF	at 75% LF	at 70% LF	at 60% LF	at 50% LF
FT-A Rate ($/$10^3m^3$/mo)	32	24	23	19	16
Contract Demand (10^3m^3)	28,923	38,564	41,319	48,205	57,846
Revenue	11,234,623	11,234,623	11,234,623	11,234,623	11,234,623
Alternative 4	**at 100% LF**	**at 75% LF**	**at 70% LF**	**at 60% LF**	**at 50% LF**
FT-A Rate ($/$10^3m^3$/mo)	14	11	10	9	7
Contract Demand (10^3m^3)	28,923	38,564	41,319	48,205	57,846
Revenue	5,024,496	5,024,496	5,024,496	5,024,496	5,024,496

IGCAA-NGTL-021

Reference:

NGTL 2005 GRA Phase II Application Section 4, Contract Demand Quantity and Throughput

Preamble:

IGCAA seeks to understand the extent to which FT-P service is being utilized by shippers.

Request:

Please provide a list of FT-P contracts in effect on June 1, 2005 including the following information for each contract:

- the contract quantity
- the number of authorized receipt points specified in the contract
- the distance of haul used to determine the contract demand charge
- the monthly contract demand charge
- the initial contract term

Response:

Please see the table provided below.

IGCAA-NGTL-021

CDQ ($10^3m^3/d$)	Number of contracted receipt points	Distance used to calculate the FT-P rate (km)	Monthly Rate ($/$10^3m^3$/month)	Term (months)
140.0	26	48.5	117.18	12.0
2413.9	15	49.2	117.18	12.0
198.7	26	80.3	137.35	12.0
141.0	22	120.6	147.43	12.0
283.3	37	149.1	157.52	12.0
566.6	27	73.5	127.27	12.0
140.0	9	46.9	117.18	14.7
140.0	12	68.9	127.27	12.0
270.0	31	122.6	147.43	12.0
200.0	30	74.0	127.27	12.0
180.0	56	98.2	137.35	12.0
460.0	84	124.7	147.43	12.0
280.0	21	120.6	147.43	12.0
140.0	83	124.7	147.43	12.5
274.0	132	150.0	157.52	12.5
140.0	2	149.1	157.52	15.0
168.0	5	149.1	157.52	12.0
806.5	6	249.4	197.85	12.0
350.0	32	99.5	137.35	12.0
400.0	166	224.3	187.77	12.0
300.0	56	99.4	137.35	12.0
500.0	196	199.3	177.68	12.0
537.6	92	223.6	187.77	13.0
967.7	95	225.0	187.77	19.0
147.8	50	171.2	167.60	19.0
140.0	5	126.5	157.52	13.0

IGCAA-NGTL-022

Reference:

NGTL 2005 GRA Phase II Section 2 Rate Design Appendix 2B COS Study – Alternative Allocation Methodologies

Preamble:

IGCAA wishes to understand NGTL's ability to apply different fuel ratios to FT-P and other services.

Request:

Please discuss:

(a) the feasibility of allowing FT-P shippers the option of providing fuel in-kind. If this option is not feasible at this time, please explain why and what steps would need to be taken to make it possible.

(b) the feasibility of charging each FT-P shipper a fuel ratio that is a percentage of the FT-R ratio where the percentage is based on the FT-P contract's distance of haul divided by the average intra-Alberta distance of haul. If this option is not practical at this time, please explain why and what steps would need to be taken to make it possible.

Response:

(a) NGTL is unable to take fuel in-kind for FT-P since its computer systems are not designed to handle different fuel percentages for different services. This would require a re-write of the numerous computer programs associated with the fuel process, involving substantial time and resources.

(b) This approach would add complexity to the process described in the response to (a).

IGCAA-NGTL-023

Reference:

NGTL 2005 GRA Phase II Section 3 Service and Tariff Amendments

Preamble:

IGCAA wishes to understand the Terms and Conditions for FT-P service

Request:

(a) Please confirm whether the terms and conditions for FT-P service allow shippers to assign either temporarily or permanently all or part of their FT-P capacity to another shipper as FT-P or FT-R service. Please discuss any limitations that NGTL would impose on FT-P shippers wishing to assign all or part of their capacity.

(b) Please discuss the difference between Capacity Assignments and Capacity Release as provided for in NGTL's terms and conditions or tariff.

(c) Please confirm that Relief for Mainline Restrictions as provided for in Appendix B of NGTL's Tariff only applies to FT-D service. If this can not be confirmed, please explain why such relief is not provided in the Terms and Conditions of FT-P service.

Response:

(a) Subject to the creditworthiness of the assignee and with the written consent of NGTL, a customer may either temporarily or permanently assign, on terms and conditions satisfactory to NGTL, all or a portion of its FT-P service to another party, only as FT-P service.

(b) Assignment provisions are set out in Section 15.5 of the General Terms and Conditions of NGTL's Gas Transportation Tariff. Section 15.5 allows a customer to assign all or a portion of its Schedule of Service to another customer. The assignment is negotiated between the assignor and assignee and once finalized requires NGTL's consent.

IGCAA-NGTL-023

Capacity Release, as set out in the applicable Rate Schedules, allows a customer to request to reduce its contract demand. NGTL is under no obligation to find another customer who is willing to assume such capacity, however if one is located, NGTL may allow such reduction on terms and conditions satisfactory to NGTL.

(c) Relief for Mainline Capacity Restrictions, as set out in Appendix B of NGTL's Transportation Tariff, is available only to a customer entitled to service under Rate Schedule FT-R, FT-RN, LRS, or LRS-3. This attribute of service was not a negotiated term or condition of FT-P Service when this service was developed as part of the 2003 Tariff Settlement. NGTL does not recall relief being made available within at least the last ten years.

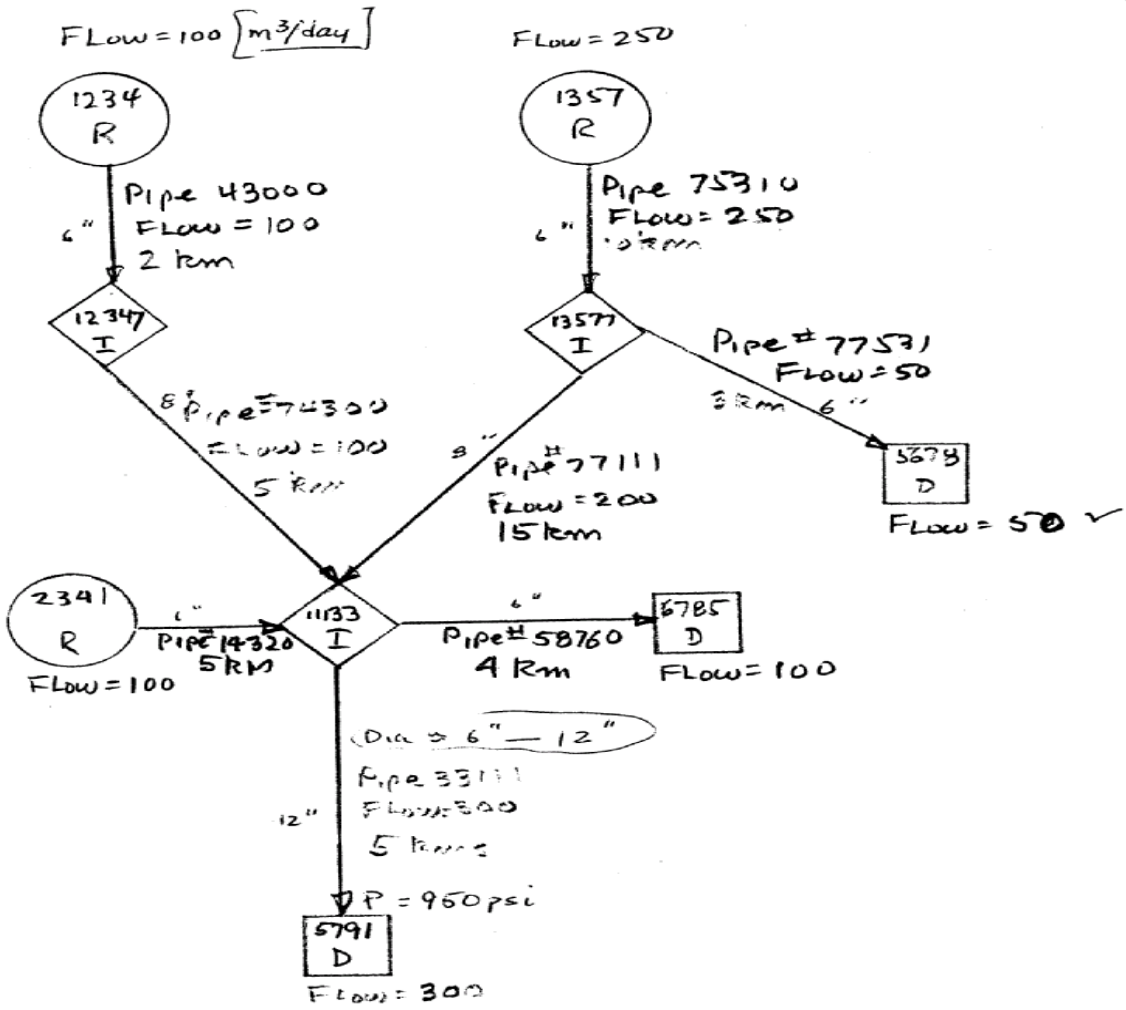
IGCAA-NGTL-024

Reference:

Application Appendix 2A, page 4 of 13

Preamble:

IGCAA is trying to better understand NGTL's DOH methodology and its application. IGCAA has modified the schematic on the above-referenced pages as follows:



IGCAA-NGTL-024

Request:

(a) Using the flows indicated on the revised schematic (Case 1), please calculate the DOH for:

(i) D5678
(ii) D6785
(iii) D5791

(b) If the flows were changed such that R2341 = 50 , D6785 = 150 and D5791 = 200 (Case 2), please calculate the DOH for:

(i) D5678
(ii) D6785
(iii) D5791

Response:

(a) Given the inputs specified in Case 1, the resulting DOH values are:

(i) D5678: 13.0 km
(ii) D6785: 19.5 km
(iii) D5791: 20.5 km

(b) Given the revised inputs specified in Case 2, the resulting DOH values are:

(i) D5678: 13.0 km
(ii) D6785: 21.0 km
(iii) D5791: 22.0 km

IGCAA-NGTL-025(a) and (b)

Reference:

Application Appendix 2A, Appendix 1 (2003 DOH)

Preamble:

IGCAA requires further information regarding how NGTL calculates DOH for extraction delivery points

Request:

(a) Please identify all extraction delivery points by unit number and name as referred to in section 5 of the 2003 DOH.

(b) For each extraction delivery point provide the monthly and annual average inlet and outlet energy content (HHV) and compositional gas analysis.

Response:

(a) Please see the list provided below:

MS Number	MS Name
2360	COCHRANE EXTRACT
3432	PETRO GAS PLANT
3434	AMOCO INLET
3435	PAN CAN INLET
3440	PROGAS PLANT
13530	EMPRESS WOLCOTT*
3452	JOFFRE EXTRACT

* Flows at 13530 Empress Wolcott are measured at 3440 Progas Plant

(b) Please refer to the response to IGCAA-NGTL-001(e).

IGCAA-NGTL-025(c)

Reference:

Application Appendix 2A, Appendix 1 (2003 DOH)

Preamble:

IGCAA requires further information regarding how NGTL calculates DOH for extraction delivery points

Request:

Explain the methodology used by NGTL to determine the gas equivalent volume of the components of the natural gas stream extracted at each extraction delivery point for the purposes of NGTL's DOH calculation for these delivery points.

Response:

The gas equivalent volume of the components of the natural gas stream extracted at each extraction delivery point is not used to calculate the DOH. NGTL uses the volume of the extracted gas stream as supplied by the plant operators to calculate the DOH.

IGCAA-NGTL-026

Reference:

Application Subsection 1.2, page 4 of 4

Preamble:

NGTL proposes to switch from volumetric to energy based except for delivery service.

Request:

(a) What service will continue to be provided using volumetric contracting.

(b) For the services that NGTL proposes to use volumetric contracting please provide NGTL's justification for not switching to energy contracting, addressing any related issues of cost causation and cost allocation.

Response:

Contrary to the statement in the preamble, NGTL proposes to convert only export delivery point contracts (FT-D, FT-DW, IT-D, and STFT) from volumetric units to energy units.

(a) FT-R, FT-RN, IT-R, FT-P, FT-X, IT-S, FT-A, LRS, LRS-2, and LRS-3 services will continue to be contracted in volumetric units.

(b) There is no need or benefit to converting any of the other services at this time. Conversion of these other services is not required to achieve alignment of export delivery contracts with downstream contracts. There are no related issues of cost causation and cost allocation that NGTL is aware of.