

### Russell 3000® Index - Deletions

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Company	Symbol	Sector
22ND CENTURY GROUP INC	XXII	Consumer Staples
ABRAXAS PETE CORP	AXAS	Energy
ACER THERAPEUTICS INC	ACER	Health Care
ACLARIS THERAPEUTICS	ACRS	Health Care
ACORDA THERAPEUTICS INC	ACOR	Health Care
ADAMAS PHARMACEUTICALS	ADMS	Health Care
AG MORTGAGE INVT TR INC	MITT	Financial Services
AGEX THERAPEUTICS INC	AGE	Health Care
AIRGAIN INC	AIRG	Technology
ALDEYRA THERAPEUTICS INC	ALDX	Health Care
ALTUS MIDSTREAM CO	ALTM	Energy
AMPLIFY ENERGY CORP	AMPY	Energy
ARMSTRONG FLOORING INC	AFI	Materials & Processing
ASCENA RETAIL GROUP INC	ASNA	Consumer Discretionary
ASHFORD HOSPITALITY	AHT	Financial Services
ASSERTIO HOLDINGS INC	ASRT	Health Care
ASTRONOVA INC	ALOT	Technology
BARNES & NOBLE EDUCATION	BNED	Consumer Discretionary
BASSETT FURNITURE INDS	BSET	Consumer Discretionary
BAUDAX BIO	BXRX	Health Care
BLUELINX HOLDINGS INC	BXC	Materials & Processing
BRAEMAR HOTELS & RESORTS	BHR	Financial Services
BRIGGS & STRATTON CO	BGG	Producer Durables
CALLON PETROLEUM CO	CPE	Energy
CASTLIGHT HEALTH INC	CSLT	Health Care
CBDMD INC	YCBD	Consumer Staples
CBL & ASSOC PPTYS INC	CBL	Financial Services
CEDAR REALTY TRUST INC	CDR	Financial Services
CELCUITY	CELC	Health Care
CENTENNIAL RESOURCE DEV	CDEV	Energy
CHAPARRAL ENERGY INC	CHAP	Energy
CHARAH SOLUTIONS INC	CHRA	Producer Durables
CLEAR CHANNEL OUTDOOR	ССО	Consumer Discretionary
CODA OCTOPUS GROUP INC	CODA	Technology
COMMERCIAL VEH GROUP INC	CVGI	Producer Durables
CONFORMIS INC	CFMS	Health Care
CONTURA ENERGY	CTRA	Energy
COVIA HOLDINGS CORP	CVIA	Energy
CULP INC	CULP	Materials & Processing
CUMULUS MEDIA INC	CMLS	Consumer Discretionary
DELTA APPAREL INC	DLA	Consumer Discretionary
DENBURY RESOURCES INC	DNR	Energy
DONNELLEY R R & SONS CO	RRD	Producer Durables
DRIVE SHACK	DS	Consumer Discretionary
ELECTROCORE INC	ECOR	Health Care
ELEVATE CREDIT INC	ELVT	Financial Services
ENERGOUS CORP	WATT	Producer Durables
EXANTAS CAPITAL CORP	XAN	Financial Services
EXELA TECHNOLOGIES	XELA	Producer Durables

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EXTRACTION OIL & GAS INC	XOG	Energy
EYEPOINT PHARMACEUTICALS	EYPT	Health Care
FIRST FINL NORTHWEST	FFNW	Financial Services
FLEXSTEEL INDUSTRIES INC	FLXS	Consumer Discretionary
FLOTEK INDUSTRIES INC	FTK	Energy
FORTE BIOSCIENCES INC	FBRX	Health Care
FORUM ENERGY TECH	FET	Energy
FTS INTERNATIONAL INC	FTSI	Energy
GASLOG LTD	GLOG	Producer Durables
GENESIS HEALTHCARE INC	GEN	Health Care
GEOSPACE TECHNOLOGIES	GEOS	Energy
GNC HLDGS INC	GNC	Consumer Staples
HALLADOR ENERGY CO	HNRG	Energy
HALLMARK FINL SVCS INC	HALL	Financial Services
HIGH POINT RESOURCES	HPR	Energy
IDEANOMICS INC	IDEX	Technology
IND CONTRACT DRILLING	ICD	Energy
INNERWORKINGS INC	INWK	Producer Durables
INSPIRED ENTERTAINMENT	INSE	Consumer Discretionary
J ALEXANDERS HOLDINGS	JAX	Consumer Discretionary
JANUS HENDERSON GROUP	JHG	Financial Services
JJILL INC	JILL	Consumer Discretionary
KLX ENERGY SERVICES	KLXE	Energy
LAREDO PETROLEUM INC	LPI	Energy
LEAF GROUP LTD	LEAF	Consumer Discretionary
LEE ENTERPRISES INC	LEE	Consumer Discretionary
LINEAGE CELL THERAPEUTIC	LCTX	Health Care
LSB INDUSTRIES INC	LXU	Materials & Processing
MALVERN BANCORP INC	MLVF	Financial Services
MAMMOTH ENERGY SERVICES	TUSK	Energy
MARCHEX INC	MCHX	Consumer Discretionary
MDC CORP	MDCA	Consumer Discretionary
MEDALLION FINANCIAL	MFIN	Financial Services
MILLENDO THERAPEUTICS	MLND	Health Care
NATURAL GAS SERVICES GRP	NGS	Energy
NCS MULTISTAGE HOLD	NCSM	Energy
NEURONETICS INC	STIM	Health Care
NINE ENERGY SERVICE INC	NINE	Energy
NOBLE CORPORATION PLC	NE	Energy
NORTHERN OIL & GAS INC	NOG	Energy
OASIS PETE INC	OAS	Energy
OCWEN FINANCIAL CORP	OCN	Financial Services
ON DECK CAPITAL INC	ONDK	Financial Services
PACIFIC DRILLING LTD	PACD	Energy
PACIFIC MERCANTILE BANCO	PMBC	Financial Services
PALATIN TECHNOLOGIES INC	PTN	Health Care
PANHANDLE OIL AND GAS	PHX	Energy
PARETEUM	TEUM	Utilities
PARTY CITY HOLDCO INC	PRTY	Consumer Discretionary



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PENNSYLVANIA REAL ESTATE	PEI	Financial Services
PHUNWARE INC	PHUN	Technology
POLARITYTE INC	PTE	Health Care
POTBELLY CORPORATION	PBPB	Consumer Discretionary
PRGX GLOBAL INC	PRGX	Producer Durables
QEP RESOURCES INC	QEP	Energy
RAMACO RESOURCES INC	METC	Energy
READING INTERNATIONAL	RDI	Consumer Discretionary
RED LION HOTELS CORP	RLH	Consumer Discretionary
RESTORBIO INC	TORC	Health Care
RIGNET INC	RNET	Energy
RING ENERGY INC	REI	Energy
ROSEHILL RESOURCES INC	ROSE	Energy
RTW RETAILWINDS INC	RTW	Consumer Discretionary
SANDRIDGE ENERGY INC	SD	Energy
SEACOR MARINE HOLDINGS	SMHI	Energy
SEADRILL LIMITED	SDRL	Energy
SELECT INTERIOR CONCEPTS	SIC	Materials & Processing
SENSEONICS HOLDINGS INC	SENS	Health Care
SHARPSPRING INC	SHSP	Technology
SILVERBOW RESOURCES	SBOW	Energy
SMART SAND INC	SND	Energy
SONIM TECHNOLOGIES	SONM	Technology
STRATASYS LTD	SSYS	Technology
SYNALLOY CORP	SYNL	Materials & Processing
SYNLOGIC INC	SYBX	Health Care
TAILORED BRANDS INC	TLRD	Consumer Discretionary
TEEKAY CORP	тк	Producer Durables
TEEKAY TANKERS LTD	TNK	Producer Durables
TESSCO TECHNOLOGIES INC	TESS	Technology
TETRA TECHNOLOGIES INC	TTI	Energy
TITAN INTERNATIONAL INC	TWI	Producer Durables
TRANSENTERIX INC	TRXC	Health Care
TRAVELZOO	TZOO	Technology
TWIN DISC INC	TWIN	Producer Durables
U.S. WELL SERVICES	USWS	Energy
UNION BANKSHARES INC	UNB	Financial Services
VALHI INC	VHI	Materials & Processing
VELOCITY FINANCIAL INC	VEL	Financial Services
VINCE HOLDING CORP	VNCE	Consumer Discretionary
WASHINGTON PRIME GROUP	WPG	Financial Services
YOUNGEVITY INTERNATIONAL	YGYI	Consumer Staples
YRC WORLDWIDE INC	YRCW	Producer Durables
ZAGG INC	ZAGG	Consumer Discretionary
ZYNERBA PHARMACEUTICALS	ZYNE	Health Care



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